SCOTTISH HOSPITALS INQUIRY

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Hearing commencing 9 May 2022
Bundle 4
Single Bed Derogation

SCOTTISH HOSPITALS INQUIRY

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Chief Nursing Officer Directorate

The Scottish Government

[redacted]

Dear Colleague

PROVISION OF SINGLE ROOM ACCOMMODATION AND BED SPACING

Further to the interim guidance issued by David Hastie, then Head of Property and Capital Planning, on 15 December 2006, the work of the Steering Group on single room provision has now been completed. This letter sets out the conclusions reached and introduces updated guidance on the future provision of single room accommodation and bed spacing in new and refurbished projects.

The background to the Steering Group's work is set out in Annex A.

Action

NHS Boards should implement the new guidance in all schemes in excess of delegated limits that have not yet submitted Outline Business Cases. For schemes within delegated limits the guidance should be applied for such projects that have not commenced procurement. The guidance is as follows:

New-build facilities

- For all new-build hospitals or other healthcare facilities which will provide in-patient accommodation there should be a presumption that all patients will be accommodated in single rooms, unless there are clinical reasons for multi-bedded rooms to be available.

Refurbishment of healthcare facilities

- For projects where the refurbishment of major healthcare facilities has been approved it is recognised that each building to be refurbished will present unique problems. However, in developing proposals for substantially refurbishing healthcare facilities NHS Boards should seek to provide the maximum number of single rooms consistent with the approach for new-build, e.g. 100%.

- In developing proposals for single room provision in refurbishments, recognising the constraints posed by existing buildings, it has been decided that the overall level of single room provision should be 50% as an absolute minimum, with due regard to the clinical needs of specific patient groups.

CEL 48 (2008)

11 November 2008

Addresses

For action
Chief Executives NHS Boards
Chief Executive National Services Scotland
Chief Executive Golden Jubilee Hospital

For information
Chief Executives other NHS Special Boards
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http://www.scotland.gov.uk

Pending the conclusion of the further work set out below schemes will be considered on a case by case basis and NHS Boards should consult with the Capital Investment Group.

Further work

- Further work is required to support clinical decision making on the need for multi-bedded areas for specific patient groups, or clinical specialties where 100% single rooms would be regarded as always appropriate. A Delphi Consultation exercise with the clinical speciality leads designated by the Chief Medical Officer is currently underway, and supporting materials will be produced in the near future. Separate advice on this issue will be issued in due course.

- Health Facilities Scotland will be asked to review and update all relevant technical guidance and also to lead the work on developing a risk matrix tool in conjunction with the Single Room Steering Group and other key stakeholders.

Yours sincerely

Paul Martin

Chief Nursing Officer

Annex A

Background to the work of the Steering Group

Following a Peer Review of the European Union Health Property Network Report entitled "Hospital Ward Configuration: Determinants Influencing Single Room Provision", a Steering Group was established in March 2006 to take forward the recommendation that further evidence in a Scottish context should be gathered. This Group's membership was drawn from those involved in the Peer Review event who were experts in their subject and who represented a broad range of professional disciplines, both from NHSScotland and Scottish Government Health Department (now Health Directorates). The Steering Group has now reported and its recommendations have been accepted. The report will shortly be available in full at www.scotland.gov.uk/haitaskforce.

This Steering Group had as its remit:

> To consider the evidence supporting the establishment of the future level of single room provision within new-build hospitals and in the refurbishment of major hospital facilities in Scotland.

The Group also considered the related issue of the appropriate space around each bed where these are not located in a single room. For the purpose of the report, a single room was defined as "a room with space for one patient which normally contains, at a minimum, a bed, locker, clinical wash-hand basin and also sanitary facilities comprising a toilet, shower and wash-hand basin". The Group did not consider the requirements for "specialised isolation rooms" with fully engineered ventilation.

Members of the Steering Group recognised that there was a need for information which was specific to Scotland and commissioned a number of reports/studies as follows:

- Literature review
- Public attitude survey
- Nurse staffing report
- Financial impact study

In addition to these reports, the Group also had the benefit of a survey undertaken at the Golden Jubilee National Hospital of patients who had experience of both single room and multi-occupancy room provision. In relation to the financial impact of an increased level of single room provision, the Group had the benefit of the outcome of a study undertaken in Northern Ireland of the financial impact of increasing single room provision from 50% to 100%.

Having identified and evaluated options appropriate in a Scottish context, the Steering Group recognised that not only is it necessary to strike a balance between service quality and the opportunity cost in an environment which is influenced not only by clinical and "building" interest but also by the issue of patient safety and public expectation. It was also recognised as crucial that any conclusions and recommendations made regarding single room provision in future new-build and refurbished in-patient accommodation should be future-proofed and able to accommodate the changing standards expected by patients, given the lifecycle of such facilities which often extend beyond 50 years.

Recommendations

The Steering Group's recommendations were as follows:

1) For all new-build hospitals or other healthcare facilities which will provide in-patient accommodation there should be a presumption that all patients will be accommodated in single rooms, unless a lower percentage provision for specific patient groups has been justified to and approved by the Scottish Government Health Directorate (SGHD) as part of the Business Case approval process. Those patient groups for which 100% single room provision is considered essential will be agreed with the SGHD's Chief Medical Officer.

2) For those projects which identify a refurbishment as the appropriate option to be developed, the Steering Group recognised that it is extremely difficult for it to establish a definitive proposal as each of the buildings to be refurbished will present unique problems. However, the Steering Group's recommendation was that in developing proposals for refurbishing healthcare facilities which include in-patient accommodation, Health Boards should seek to provide the maximum number of single rooms consistent with the approach recommended for new build healthcare facilities and that the overall level of single room provision within any refurbished accommodation should be 50% as an absolute minimum.

3) For bed spacing, the Group considered that the current advice remains appropriate - namely that having regard to ergonomic criteria, primarily the space required for patient handling and other activities which take place in the immediate vicinity of the bed it is recognised that the minimum bed space should not be less than 3.6 m x 3.7m.

Accordingly when planning any new in-patient accommodation or any major refurbishments of existing accommodation it is recommended that the increased bed space is adopted.

Further work

The Group also recognised a need for further work to be undertaken and has commenced a Delphi Consultation exercise with the clinical speciality leads designated by the SGHD's Chief Medical Officer. This exercise, when completed, should identify those specific patient groups for whom 100% single room provision is essential.

Further the Group recognised that it would be helpful to Boards in developing projects for a Risk Matrix Tool to be developed. It is proposed that this be based on the SCART (Statutory Compliance Assessment Risk Tool) recently developed by Health Facilities Scotland (HFS) for use by all NHS Health Boards.

REPROVISION PROJECT GROUP 5
CHILDREN, YOUNG PEOPLE AND FAMILY ADVISORY BOARD

Record of Involvement - Updated January 2011

Purpose	Type of Involvement	With Whom	By Whom	Date	Feedback		Comments
					How	To Whom	
Planning meeting to explore how best to take forward Involvement, Engagement & Consultation	Meeting with staff, internal and external stakeholders to plan how to take forward agenda	invited group of staff and interested stakeholders	Rose Byrne,	19th May 2006	Note of meeting circulated	All participants and others	
To illicit views of children, young people & their families on what is important in a new hospital	Consultation process for NHSL Children & Young Peoples Health Strategy. Included: group of young people helping redraft the document so that everyone could understand it, public meetings, meetings in schools and youth groups, wide circulation of the draft document	Children, Young People and their families	Led by John Thomas but involved Jackie Sansbury, Isabel McCallum, Rose Byrne and others	June - Sept 2006	Write up outputs circulated widely and available on NHSL website	All participants and others	The draft strategy had a specific section on the new hospital - information collected from this will inform the ongoing work of the project
To inform key stakeholders of the strategic drivers that inform the need to relocate the hospital	Invited stakeholders meeting as part of the consultation on the NHSL C&YP Health Strategy	Invited stakeholders	Led by John Thomas but involved Jackie Sansbury, Isabel McCallum, John Orr, Dave Simpson and others	24th Aug 2006	Newsletter	Public, SMT	
To inform public and other interested organisations of the Reprovision	First Reprovision Newsletter produced	Public, Organisations	Isabel Mccallum, Rose Byrne, Stephen Fraser	Nov-06	Contact details for members of the Project Team and Group Chairs included in newsletter	Feedback will be provided in future newsletters	Newsletters to be produced quarterly
To consider how will involve parents of children with complex healthcare needs	Meeting with Ann Wilson, Contact a Family	Ann Wilson, Contact a Family	Janice MacKenzie, Rose Byrne	Dec-06			
To inform supporters of the Sick Kids about the Reprovision	Article in SKFF Newsletter. Newsletter circulated to 16,000 people	Supporters of SKFF	Janice MacKenzie, Rose Byrne	Dec-06			Article in Newsletter, will have regular articles in newsletter
To ensure the Family Council are fully engaged in the Reprovision	Attended Family Council meeting to discuss their involvement	Family Council members	Rose Byrne, Isabel McCallum	Jan-07	F.C developed set of governing principles	Governing Principles sent to each of the sub groups for PG2 - Clinical Redesign	Members of the Family Council attend PG 2 Steering Group meeting
To ensure letter of invitation to Young People's event was appropriate	Asked young people who are users of the service to help develop the invitation letter	Young People (patients)	Play Services Co-ordinator	Feb-07	Letter agreed with young people involved		
To illicit views of young people who use the service in relation to how they want	Focus Group	Young People	Members of PG5	12th March 2007	Outputs from event written up and validated by	All participants. PG 5 members	feedback used to assist in development of posters and questionnaires
To illicit views of parents of young people who use the service in relation to how	Focus Group	Parents of Young People	Members of PG5	12th March 2007	Outputs from event written up and validated by	All participants. PG 5 members	feedback used to assist in development of posters and questionnaires
To explore how West Lothian Youth Workers network could support the involvement and engagement agenda	Meeting	Youth Network members	Rose Byrne, Ishbel Proctor, Wendy Milne	14th March 2007	Verbal feedback at PG5 meeting	PG 5 members	Subgroup established to plan a information raising/ consultation event - provisional date 13th June. Decision taken to reschedule until later in the year
To inform supporters of the Sick Kids about the Reprovisions	2nd article in SKFF newsletter, informing about PG 5 and also posing key questions	Supporters of SKFF	Janice MacKenzie, Rose Byrne	Mar-07	Ask readers to email/telephone comments	Feedback to be given in next article	
To explore how City of Edinburgh Children & Families services support the involvement and engagement agenda	Meeting with Lynne Portious from Children & Families services	Lynne Portious	Rose Byrne	5th April	E-mail to Janice Mackenzie re future meeting and via PG5 meeting	Janice MacKenzie & PG5 members	Lynne agreed to meet with her team to consider the best way to support the agenda and then meet with Janice MacKenzie to agree plan

To inform and consult with families and general pubic attending the SKFF Foundation Street Fair	Poster Displays/Newsletter/Briefing Sheet. Wishing Well and 'roving reporters' using questionnaire	Families and general public	Janice MacKenzie, Rose Byrne, Isabel McCallum, Nick Hunt, Thea McMillan	19th May2007	with an analysis of the information from the questionnaire and wishing well 'wishes'	PG 5 members. Reprovision Team. Findings will also be used in poster displays throughout the hospital and in future newsletters	
To engage with NES Young People's Advisory Group and to gain their continuing support and assistance with the project	Tour of the Hospital. Initial workshop to explore what they felt were the guiding principles for the planning of the hospital from a young person's perspective	Young People	Janice MacKenzie, Rose Byrne, Isabel McCallum	27th May 2007	Report from workshop. Guiding principles to be developed	Reprovision Team and Project Groups	Ongoing commitment from the YPAG to support the project
To illicit the views of patients and their families about their hospital experiences and what they would like to see in the hospital	Play Specialists using form with three key questions	Patients and families	Ishbel Proctor	Apr - Jun 07	completed. Report written of current feedback to date and will be updated as more forms	PG 5 members. Reprovision Team. Findings will also be used in poster displays throughout the hospital and in future newsletters	Consider further refining this approach with different questions at different stages of the project
To inform key voluntary agencies of the Reprovision and find out if/how they wish to be involved	Letter to key organisations	Voluntary Agencies	Janice MacKenzie, Isabel McCallum	Jun-07	Responses received from some organisations who wish to be involved		To follow up with organisations who have responded and also send out reminder to those who have not
To seek support of the Local Authorities Education Depts to engage with	Letters to Directors of Educations in 4 Local Authorities	Education Depts	Janice MacKenzie, Isabel McCallum	Jun-07	Letters received from 4 Local Authorities		Schools sub group to take forward involvement with schools
To illicit the views of families of children with complex needs (Contact a	Questionnaire to 140 families	Contact a family	Janice MacKenzie Thea McMillan	Jun-Jul 07	48 questionnaires returned which	Reprovision Team . Contact a Family.	Questionnaire was adapted following feedback from Contact a Family Core Parent Group and then distributed to their wider parent
To illicit views of children attending a number of primary schools (sent to 39	Questionnaire	Primary Schools	Maureen Harrison Carolyn Thornton	Jun-07	5 schools replied. Finding analysed.	Reprovision Team & PG 5. Letter to participating schools	Schools sub group to take forward involvement with schools
To illicit views of children using the Hospital and Outreach Teaching Service	Questionnaire/Interview	School aged children (harder to reach)	Ann Burnett	Jun- Jul 07	74 questionnaires completed and	Reprovision Team & PG 5. Letter to participating schools	To have ongoing involvement
To illicit of children & young people who are: looked after and accommodated, looked after in the community, who are sick at home and unable to attend school. Who are attending the classroom in the Young People's Unit, Gypsy/Travellers, excluded from school	Questionnaire School Session 2007-08	School aged children (harder to reach)	Ann Burnett and the Hospital and Outreach Teaching Service (Children and Families Dept. CEC)	School Session 2007-08	51 Questionnaires completed and report produced	Summary report sent to Isabel McCallum and Rose Byrne	To have ongoing involvement. If needed to revisit our pupil population for further consultation. HMIE commented positively on this exercise in our recent inspection.
To illicit views of children & young people who are looked after and	Questionnaire/Interview	School aged children (harder to reach)	Carol Watson	Jun- Jul 07	12 questionnaires completed and	Reprovision Team & PG 5. Email to Carol Watson	To have ongoing involvement. Consider attendance at proposed Health Fair in Feb 2008
To raise awareness and illicit views of women form ethnic groups	Attendance at Melange Event. Poster Display. Questionnaires	Women (ethnic groups)	Reprovision Team. PG5. Family Council	21st July 07	19 questionnaires completed.	Reprovision Team & PG 5	Considering attendance at Mela on 1st & 2nd Sept
To raise awareness of the project and seek views	Poster Display (Main Entrance & Drop In Centre). Questionnaires to those attending the hospital/Drop In Centre	Parents, visitors, children & young people	Drop In Centre Staff. Nursing staff. Volunteers, Play Specialists.	23 - 30th July 07	Analysis undertaken and report produced	Reprovision Team & PG 5	

To progress the formation of a Young Person's Group	Meeting 2 members of the NES Young People's Advisory Group	2 members of the NES Young People's Advisory Group	Janice MacKenzie Rose Byrne	2nd Aug 07			3 members of the YPAG have agreed to be involved in the development of this group. PG 5 Young People's Sub group will work with them to develop a specific Young Person's Group
To inform supporters of the Sick Kids about the Reprovisions	3rd article in SKFF newsletter, informing about PG 5 and also posing key questions	Supporters of SKFF	Janice MacKenzie, Isabel McCallum	Aug-07	Article providing feedback on key issues from consultation work		
To raise awareness of the project and seek views	Attendance at Mela Event on 1st & 2nd Sept. Poster Display & Questionnaires	Public (focus on ethnic groups)	Reprovision Team & PG 5	1 - 2 Sept 07	Analysis undertaken and report produced	Reprovision Team & PG 5	Good event to attend, consider attendance at next year's event with our own tent (not shared)
Raise awareness of project and thank schools who contributed to completion of questionnaires	Article in SKFF Schools Newsletter	School Aged Children & Teachers	Janice MacKenzie	Aug-07	Article in Newsletter	All schools involved with SKFF in Lothian	Article gives opportunity for schools to inform us if they would like to be involved with the project
To illicit view of members of SNIP	Questionnaire	Parents, visitors, patient members of SNIP	SNIP	Jul - Aug	35 questionnaires completed and report produced.	Reprovision Team. Letter of thanks to SNIP	
Raise awareness of project	Poster Presentation	Children, Young People and their families at the Family Council Logo Prize giving	Family Council & PG5	3rd Sept	Poster displays gave feedback on background to project and key themes from consultation to date	Parents and children attending prize giving	Children also had opportunity to draw pictures of that they thought new hospital should look like
Establishment of Young person's Group	Establishment of Group. Recruitment Event held for young people who are patients	Young people	Helen Taylor leading work	Ongoing from Oct 2007			
Attendance at NES PFPI Event for Young People	Poster Presentation Comments Box	Young People	Janice MacKenzie, Rose Byrne, Helen Taylor & 2 Young People	27th Oct	Poster displays gave feedback on background to project and key themes from consultation to date	To those attending the event, young people and healthcare professionals	Comments will be collated
To explore with Lighthouse Trust how they could work with the project in engaging users	Meeting	Janice MacKenzie, Thea McMillan, Rose Byrne and Ann Cunningham (Lighthouse)		7th Nov	Proposal to be developed	Presentation to Reprovision Project Board	
Attendance at SKFF Christmas Fair	Poster Presentation Graffiti Board	General Public and users	Janice MacKenzie, Rose Byrne, Angela Young	10th Nov	Poster displays gave feedback on background to project and key themes from consultation to date. People had opportunity to give comments	PG 5, ReprovisionTeam	

Attendance at Common Purpose You Turn Project	Presentation & Group Work (to create an ideal adolescent unit in new hospital)	Secondary school pupils (33) S2	Janice MacKenzie, Rose Byrne, Laura Jones	22nd Nov		PG 5, Core Project Team	Participants were asked to design the ideal adolescent facility. Lots of good work undertaken - posters/drawings etc
Attendance at Event for West Lothian school aged children	Group Work	80 pupils	Rose Byrne, Helen Taylor, Ishbel Proctor	26th Nov			
Establishment of Young People's Group to ensure views of Young People are taken account of	Formation of Group	Young people (patients) and non-patients	Helen Taylor & Rose Byrne	Nov 07 & ongoing	Regular meetings		Two meetings have been held in Nov & Jan
Engage with key voluntary agencies	Stakeholder Event. Presentation given to background and feedback received from consultations	Key Voluntary Agencies (19 agencies invited, 13 attended)	Janice Mackenzie, Sarah Sinclair & Rose Byrne	18th Jan 08	Presentations circulated. Notes from workshop sent to particpants	All particpants	Event planned for 18th Jan 2008
Inform about formation of Young People's Group	Article in the ICIC Update Newsletter	NHS Staff in Lothian & general public	Rose Byrne	Jan-08	Information about the Young People's Group		
Seek views of school aged children on 'My Dream Hospital	Art Competition	All schools in Lothian invited to participate	Family Council	Oct 07- Jan 08	Prize giving	Children, their families and teachers	
Inform about formation of Young People's Group	Article prepared for next addition of NHS Connections	NHS Staff in Lothian & general public	Helen Taylor	Mar-08			
Inform about formation of Young People's Group & Update on overall project	Article prepared for next addition of SKFF Newsletter	Supporters of SKFF	Rose Byrne	Mar/Apr 08	Contact details for further information given		
To seek the views of bereaved families as to the facilities required in the new hospital	Article in the CHAS Newletter and also information sent to a number of organisations. Followed up by questionnaire to those families who expressed interest	Bereaved families and agencies that support them	Carrie Upton & Anne Wilson	Feb-08	Collated report	Discussed at PG 5 and sent to Reprovision Team	
To continue to raise awareness of the project and progress to date	Poster Display at SKFF Fete. Information Sheet for distribution. Bookmarks & Pens distibuted	General Public and users	Janice MacKenzie & Isabel McCallum	31st May 2008			
Seek views of PG5 on the current content on the Reprovision webpages on internet	Review of webpages	PG5 members	Stephen Fraser	May-Jun 08	Responses collated	Communications Dept	
To seek the views of the Young People's Group on the design of another children's hospital	Visit to Aberdeen Children's Hospital	Staff from Aberdeen Children's Hospital	Young People's Advisory Group & Thea McMillan	8th August 08	Collated report	Discussion with Isabel McCallum & Janice Mackenzie regarding their visit at their meeting. Report presented at PG 5 and to Reprovision Team	
To seek the views of the Young People's Group on the design of RIE	Tour of RIE	Sorrel Cossens	Young People's Advisory Group & Thea McMillan	Sep-08	Discussion at their meeting	Feedback to PG 5 & Reprovision Team	
To inform in current design theory in relation to children's hospitals	Presentation	Richard Mazuch, Practice Design Consultant for Nightingale Associates in London	Representatives from Family Council, PG5 and Young People's Group	18th Sept 08	Opportunity for questions		
To seek the views of the Young People's group on single room accomodation	Discussion	Rose Byrne	Young People's Advisory Group	Sep-08	Discussion at their meeting	Report developed and sento to Reprovision Team	
To continue to raise awareness of the project and progress to date	Poster Display at SKFF Christmas Fair. Information Sheet for distribution. Bookmarks & Pens distibuted	Users and general public	Janice MacKenzie Isabel McCallum	22nd Nov 08	Use of Poster display & Talking to people	Users of the service & members of the public	

To seek the views of the Family Council and the Young People's Group on the draft catering specification	Draft catering specification sent to both groups	Family Council & Young People's Group	Isabel McCallum Peter Gilfoyle	Jan-09	Discussion at meetings and formal written response	Reprovision Team	
To ensure that needs of users of the service are reflected in the Design Brief	Comments invited on Design Brief	Family Council, Young People's Group & PG 5	Rowena Conrad	Nov 08 - Jan 09	Discussion at meetings and written comments submitted	Reprovision Team	It is acknowledged that the Design Brief is an iterative document and will continue to change
Inform the public of progress of the Project	Display Boards	Public & Users of the service	Isabel McCallum	Jun-09			No specific feedback as was about informing public
Consult on design	Presentations and discussion/group work	Young People Advisory Group	Design & Art Teams	12 Sept 09 31 Oct 09 12 Dec 09	Design & Art Team took note of key points from discussions	Design & Art Team used information gained to inform thinking on design	This is part of ongoing regular dialogue with the Young People Advisory Group
Consult on design	Presentations and discussion/group work	Family Council	Design & Art Teams	22 Sept 09 16 Oct 09 10 Nov 09	Design & Art Team took note of key points from discussions	Design & Art Team took note of key points from discussions	This is part of ongoing regular dialogue with the Family Council
Consult on concept design and 1: 500 design	Presentations and scoring as per AEDET criteria	Key Stakeholders including staff, parents, Edinburgh Council, Planning Dept (over 50 people attended)	Reprovsion Team and BAM	15-Oct-09	Report produced	Reprovision Team and PSCP	
Consult on concept design and 1: 500 design	Presentation and opportunity to discuss with design and art teams in series of Drop In Sessions at RHSCregarding design, landscaping, art strategy	Staff, patients and families (40 people attended)	Design & Art Teams	05-Nov-09	Design & Art Team took note of key points from discussions	Design & Art Team used information gained to inform thinking on design	
Consult on concept design and 1: 500 design	Presentation and opportunity to discuss with design and art teams in series of Drop In Sessions within CAMHS facility regarding design, landscaping, art strategy	Staff, patients and families (27 people attended)	Design & Art Teams	23 Nov 09 27 Nov 09	Design & Art Team took note of key points from discussions	Design & Art Team used information gained to inform thinking on design	
Consult on concept design and 1: 500 design	Stakeholder Event- presentations and group work	Voluntary sector, ethnic minority groups and faith communities and parents (13 people attended)	Design & Art Teams	20-Nov-09	Report produced	Design & Art Team & Reprovision Team	
Inform of progress of project and share concept design	SKFF Christmas Fair - Poster Display and opportunity for public to speak to staff re the design	Public and users of service (13 children and 48 adults spoke to staff)	Jancie MacKenzie Rose Byrne	21-Nov-09			This engagement was about informing public
Consult on design & Inform design	Workshops	Patients from RHSC and siblings (3-6yrs) 6 children attended)	Creation		Report produced & Open Session planned for Feb to feedback to PFPI Task Group & Other key individuals	Design & Art Team & Reprovision Team	

Consult on design & Inform design	Workshops	Patients from RHSC and siblings 6-12yrs (10 children attended)	Creation		Report produced & Open Session planned for Feb to feedback to PFPI Task Group & Other key individuals	Design & Art Team & Reprovision Team	
Consult on design & Inform design	Workshops	Patients from CAMHS (xx children attended)	Creation		Report produced & Open Session planned for Feb to feedback to PFPI Task Group & Other key individuals	Design & Art Team & Reprovision Team	
Consult on design & Inform design	Workshops	Towerbank Primary School	Creation	19-Jan-10	Report produced. Presentations from Creation.	Reprovision Team. Stakeholder Board. Staff at RHSC, BAM.	
Consult on design & Inform design	Workshops	Craigour Park Primary	Creation	21-Jan-10	Report produced. Presentations from Creation.	Reprovision Team. Stakeholder Board. Staff at RHSC, BAM.	
Consult on design & Inform design	Workshops	Oaklands Shool	Creation	27-Jan-10	Report produced. Presentations from Creation.	Reprovision Team. Stakeholder Board. Staff at RHSC, BAM.	
Consultation as part of Pre-planning application at 6 sites	Display Boards. Opportunity to ask questions	Staff, patients, families and general public (RHSC, WGH, RIE, St John's, REH & Craigmillar Library	Reprovision Team	Apr-May 10	Report produced	Reprovision Team. BAM	
Inform of progress of project and share concept design	SKFF Summer Fair - Poster Display and opportunity for public to speak to staff re the design	Public and users of service	Reprovision Team & Other staff involved in the project	5th June 10	Opportunity for questions		
Artists in residence	Activity in ward type areas	Users of service	Emma Herman Smith	7th June 10	Report at end of activity	SKFF, Grit& Pearl, reprovision team Architects	First activity of this type in the hospital & children seemed to be happy to participate
Artists in residence	Activity in Outpatient areas	Users of service	Emma Herman Smith	11th July 10	Report at end of activity	SKFF, Grit& Pearl, reprovision team Architects	Developing activity from first session.
Artists in residence	Acvtivity in Spiritual Spaces	Users of service	Sue Lawty	7th June 10	Report at end of activity	SKFF, Grit& Pearl, reprovision team Architects	Working with patients, staff and parents to gain a feeling for the desired environment of the Spiritual spaces in the hospital.
Artists in residence	Activity for Spiritual spaces in Wards.	Users of service	Sue Lawty	24th June10	Report at end of activity	SKFF, Grit& Pearl, reprovision team Architects	Working with children producing stone pictures' on boards whch were then photographed & will be used in hospital & in informing research for new hospital
Artists in residence	Workshops on Playrooms	Users of service	Studio Weave	26th July10	Report at end of activity	SKFF, Grit& Pearl, reprovision team Architects	Working with children responding to music to produce a story & draw pictures of the story. This builds an image of the imaginative processes which they are going through, to identify issues which may cause them concern or evoke feleings of security, to identify what appeals to their sense if fun &

							helps to evolve the images which are important to different ages of children.
Artists in residence	Interviews for next tranche of artists	Artists in residence Steering group with staff from host departments		14th Sept	Successful artists appointed	SKFF Steering Group architects host departments in hospital	Using the information from the first group of artists informed the questions and focus of the interviews
Inform of progress of project and share concept design	Drop In Information Events	Patients, Families and CAMHS staff	Reprovision Team and Gwyneth Bruce	23rd and 27th November 2009			
Inform of progress of project and share concept design	Presentation	CAMHS Inpatient Unit SEAT Stakeholders	Gwyneth Bruce	Apr-10	Opportunities for questions		
Inform of progress of project and share concept design	Display	CAMHS Inpatient Unit Patients, Families and Staff	CAMHS Design Group	Jun-10			
Consult on design & Inform design	Involvment of CAMHS Collective Advocacy Project	Patients in Inpatient and Day services	CAMHS Staff and Collective Advocacy	Jun-10	Collective Advocacy worker attends design groups to represent young people who have met with her		
Design consultation with overall group - 1:500, 1:200, 1:50	Presentations and discussion	RHSC Staff, Family Council Rep	Reprovision Team & BAM, Tribal, Nightingales	7/7/10, 21/1/10, 4/2/10, 25/2/10, 4/3/10, 18/3/10, 1/4/10, 15/4/10, 29/4/10, 27/5/10, 1/6/10, 1/7/10, 29/7/10	Note of meeting circulated	Reprovision Team & BAM, Tribal, Nightingales	Landscape meetings held on 27/5/10 and 8/7/10
Design consultation with departments - 1:200	Drawings discussion/group work	RHSC Staff, Family Council Rep	Reprovision Team & BAM, Tribal, Nightingales	w/c 29th March, w/c 26th April, w/c 28th June, w/c 26th July	Note of meeting circulated	Reprovision Team & BAM, Tribal, Nightingales	Extraordinary meetings held in w/c 12th July and w/c 2nd August
To seek the views of the Young People's group on 1:200 design	Discussion	Young People Advisory Group	Reprovision Team, Nightingales	27/3/10, 8/5/10, 26/6/10	discussion on their meeting	Reprovision Team	
Consult on concept design and 1: 500 design	Presentations and scoring as per AEDET criteria	Key Stakeholders including staff, parents, Edinburgh Council, Planning Dept (over 50 people attended)	Reprovsion Team and BAM	22-Apr-10	Report produced	Reprovision Team and PSCP	
Consult on concept design	Presentations and scoring as per AEDET criteria	Key Stakeholders including staff, parents, Edinburgh Council, Planning Dept (over 50 people attended)	Reprovsion Team and HFS	12-Aug-10	Report produced	Reprovision Team and PSCP	

Consult 1.50 Generic Rooms Design	Drawings discussion/group work	RHSC Staff, Family Council Rep	Reprovision Team & BAM, Nightingales	15/7/10, 2/8/10, 11/8/10, 24/9/10	Note of meeting produced	Reprovision Team and PSCP	
Design consultation with overall group - 1:50	Drawings discussion/group work	RHSC Staff, Family Council Rep	Reprovision Team & BAM, Nightingales	1st Round - w/c 30/8/10, 6/9/10, 13/9/10. 2nd Round - w/c 4/10/10, 11/10/10, 18/10/10. 3rd Round - 8/11/10, 15/11/10, 22/11/10.	Note of meeting produced	Reprovision Team & BAM, Tribal, Nightingales	
Fire Strategy meetings	Drawings discussion/group work	RHSC Staff, Family Council Rep	Reprovision Team & BAM, Nightingales	26/10/10, 25/10/10, 4/11/10	Note of meeting produced	Reprovision Team & BAM, Tribal, Nightingales	
To seek the views of the Young People's group on Adolescent Areas 1:50 design	Discussion	Young People's Advisory Group	Reprovision Team, Nightingales	07/08/2010	discussion at meeting	Reprovision Team	
To seek the views of Young People's group on way-finding around hospital	Discussion	Young People's Advisory Group	Siobhan Davitt, bmj Architects, Isabel McCallum, Helen Taylor	11/09/2010	discussion at meeting	Reprovision Team	
To seek the views of Young People's group on artist in residence projects	Presentation and discussion	Young People's Advisory Group	Richard Hollinshead, Grit & Pearl, Isabel McCallum	11/09/2010	discussion at meeting	Reprovision Team	
To seek the views of Young People's group on way-finding around hospital	Discussion	Young People's Advisory Group	Siobhan Davitt bmj Architects, Helen Taylor	20/11/2010	discussion at meeting	Reprovision Team	

You have provided us with a lot of information already in response to initial questionnaires and group meetings. We would be grateful if you could score each of these 1 to 5 (with 1 being least important and 5 being most important)

1.	**Outside play areas/gardens** 1 2 3 4 5
2.	**Separate overnight accommodation for parents** 1 2 3 4 5
3.	**Accommodation for a parent to sleep by child/young person's bed** 1 2 3 4 5
4.	**Separate adolescent ward** 1 2 3 4 5
5.	**Ward layout** 1 2 3 4 5 Please indicate your preference
6.	**All single en-suite rooms** 1 2 3 4 5
7.	**Combination of single en-suite rooms and 4/6 bedded bays** 1 2 3 4 5
8.	**It has been suggested that each ward should have a separate parents' sitting room, is this necessary?** YES / NO If **YES**, what facilities should be within this area?

9.	**How important is it that the food provided is cooked on the premises?** 1 2 3 4 5
10.	**Would you prefer to eat your meals in the Ward Dining Room as a family group?** 1 2 3 4 5
11.	**Would you choose to eat in the Hospital Dining Room away from the ward?** 1 2 3 4 5
12.	**Any Other Comments**

Feedback on single room accommodation.

Firstly we felt it is necessary to have a combination of both single rooms and bedded bays.

We understand that in terms of hygiene, single rooms are easier to clean and maintain, however we feel that for babies and toddlers individual rooms are not going to work. This is because babies and toddlers need to be watched constantly and this would be difficult if they were in individual rooms as oppose to bedded bay with a nurses station. Also it could be detrimental socially as they like to someone to play with.
-Aberdeen Children's Hospital has a nice layout of bedded bays as they are bright and they had lots of room too.

In terms of adolescents it would be good if they were able to chose if they would like to mix with other patients in a ward or have more privacy in their own room.

We were informed that due to new regulations the proportion of single rooms in the new hospital is likely to be higher. If so we felt it was important for there to be a communal room for socialising for those patients in single rooms so they are not stuck on their own all day and so they have a chance to hang out with people their own age.

We felt that the single rooms could be situated around the communal area as to make it accessible for everyone, and it would also encourage those who may be less likely to mix with other patients to join in.

In the same way that adolescents need a place to hang out, so too do younger children therefore a play area might be a good idea so they have a place to go to get away from the ward.

From visiting the Evelina Children's Hospital in London I feel that the colour of decoration in the single rooms needs to be chosen carefully as at the Evelina they chose red, which they regret as it often makes it stuffy in summer.

Gary Buchanan
Interim Co-chair
Young People's Advisory Group.

NHS SCOTLAND

Single Room Provision in Scotland

Draft Nursing Report

March 2007

Shona Chaib
Nurse Director – National Waiting Times Centre Board

Contents

A group of experts from across Scotland were invited to a residential peer-review event on 30 November – 1 December 2005. The event was sponsored and facilitated by the Scottish Executive Health Department and NHS Education for Scotland.

The peer review was structured to consider the impact of single room provision across four areas of concern – HAI, environmental issues, operational issues, and costs and value for money.

The use of a building impacts on not only infection prevention and control but has also been linked to patient dignity, confidentiality, reduction of errors, positive patient outcomes, staff satisfaction and patient satisfaction.

Representation

Nursing representation was invited and an executive nurse director joined the peer group to represent the nursing opinion from across Scotland.

Methodology

A variety of methods were used to gather data. These included:

1. A survey of nurse experience
2. A survey of patient experience
3. One to one interviews
4. Planned discussion at Nurse Director meeting.

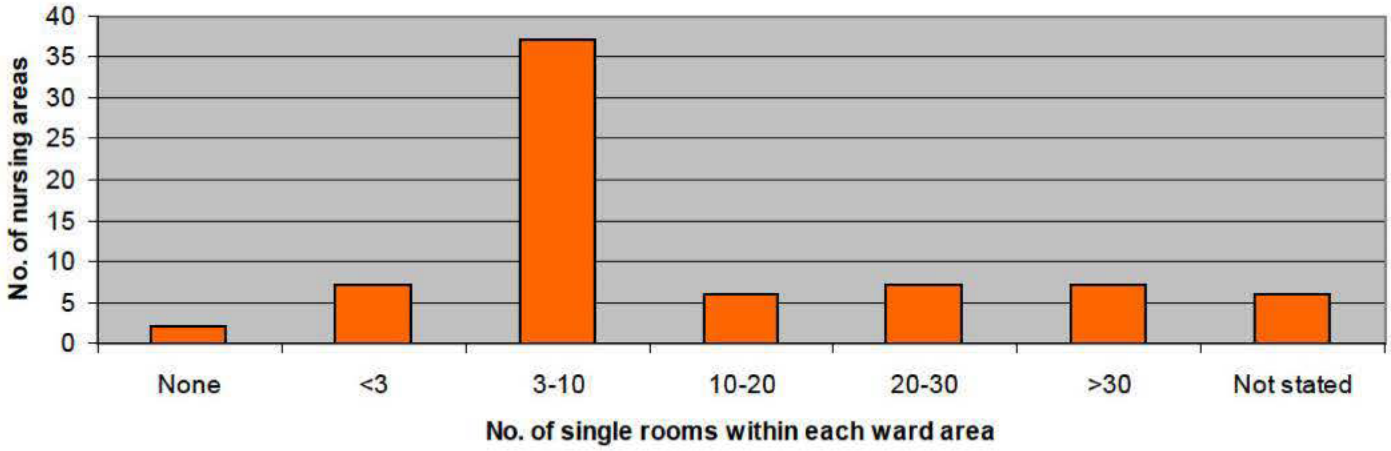
Survey of nurse experience

A survey was carried out in July 2006 across NHS Boards the independent healthcare sector to gather information from senior nurses and midwives on their views regarding the care of patients in single rooms and staffing provision.

The consultation was open for 3 months from July to September 2006. Questionnaires were sent to all nurse directors for their response and distribution to key staff within each health board area. 72 responses were received from across a variety of nursing and midwifery areas ranging from acute to long term care. There was further opportunity throughout January and February 2007 for nurse directors to comment and contribute to this report, particularly in relation to nurse staffing levels associated with patient care in single rooms.

1. Number of nursing areas with 3 or more single rooms within a ward area:

Table 1a

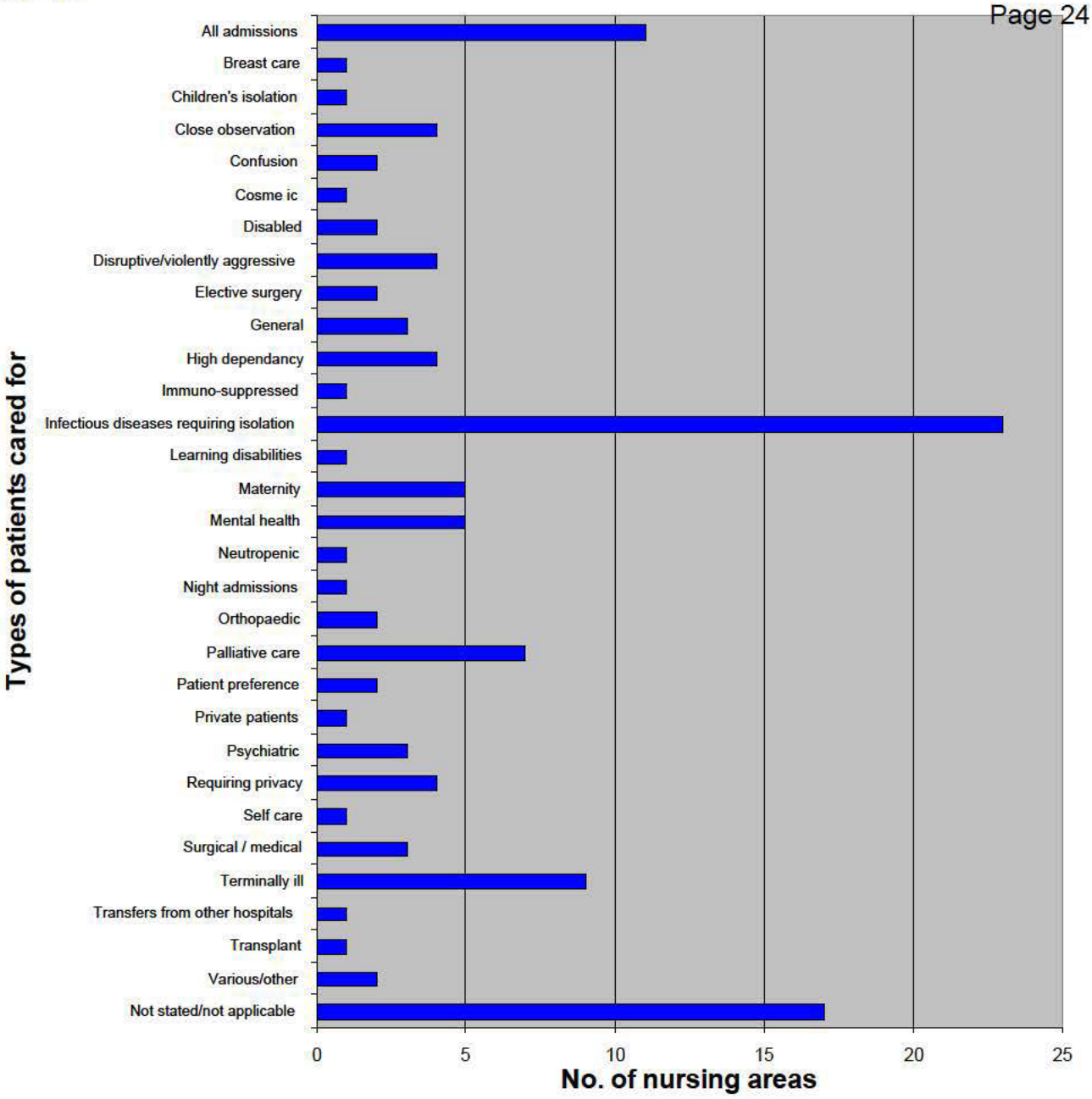


From this it is clear that the majority of nursing care areas have single rooms or 'side rooms.' Most having between 3 and 10 adjacent to the main nursing area. The survey did not question whether or not these rooms had en-suite or dedicated toilet facilities.

2. Types of patients cared for:

Table 1b describes the variety of wards where a response was received to the survey. It appears that single rooms are most often used to accommodate patients who have infections or who are terminally ill. There were a significant number of responders who were not specific about why patients were admitted to single rooms. In follow up conversations, it was clarified that the users can vary from generally fit patients, undergoing routine procedures, who have requested a single room to those who need 'special' one to one nursing care. New hospitals are now built where single rooms occupy between 30% to 50% of the patient care areas. Policies are being developed locally that outline the criteria and decision making process in single room allocation.

Table 1b



In addition to canvassing the view of senior ward nurses and midwives via the Nurse Directors, the proposal to move to greater percentages of single room accommodation has been discussed at Scotland's Executive Nurse Directors (SEND) Meeting and dedicated meetings have taken place with some Directors of Nursing to gauge their views.

At the SEND meetings there was agreement that we should wholly support the provision of 100% single room accommodation. It is acknowledged that the pace at which this could be provided would be dictated by a number of factors, such as funding for new builds or refurbishments and bed pressures. The view is strong amongst the majority of this group that 100% single room sleeping accommodation is a highly desirable, if not essential, objective that should be pursued and that a number of issues for patients and nurses need consideration.

Children's Services

As part of the Reprovision Project to replace the Royal Hospital for Sick Children in Edinburgh, a number of consultation initiatives took place with small groups from charity and volunteering organisations. One of the questions that was asked was:

'Should the patient areas have single rooms or rooms of 4/6 beds or a mixture of both?'

Responses indicated a mixed view depending on the organisation approached. However children, young people and their families preferred an option that included but was not exclusively single rooms. The majority of respondents preferring a mixed room approach

Currently children and young people are allocated single rooms prioritised on the following criteria: -

- Infection requiring isolation
- Mothers who are breastfeeding
- Terminally ill
- Adolescents

Views of Children's Nurses

Not all parents will stay with their child overnight or are visiting the hospital all the time during the day. Children and many young people often feel very isolated and alone when they are in cubicles and enjoy the social interaction of being in a ward area beside other children.
In addition younger children and babies, unlike adults, are not able to use nurse call systems and therefore observation of them is more difficult if all were to be nursed in single rooms.

Children as part of their development require social interaction and for those who are unable to mobilise and confined to their bed and therefore not able to use the playroom, benefit from being nursed beside other children.

At a recent meeting of senior nurses across the U.K (Association of Chief Children's Nurses) there was discussion about whether there should be 100% cubicles and this was not supported, as it is recognised that children find great comfort from sharing with others, especially when their parents are not with them. It was recognised that many adolescents would wish to be in a single room for privacy, however equally many of them also wanted to share and that consideration needs to be given in relation to segregation of male and female patients.

In addition it was felt that having a 100% single rooms would require higher patient: nurse staffing ratios because of the dependence of babies and young children on nursing staff, which is different to the dependence and support required by adult patients.

Patient : Nurse Ratios & Staffing of single room accommodation

Nurse Directors agree that 'direct care - nurse workforce planning' is based on the type and dependency of the patient. That is, the number of hours per patient day required, including supervision or calculated another way; the number of nurses per occupied bed. This is currently worked out using a variety of different models around the country. Work is well underway through nursing workforce and workload planning groups to coordinate/ deliver guidance on approaching and managing this. A programme of implementation of nursing workload measurement tools across acute care, mental health and learning disabilities, maternity, paediatric and neonatal care will be rolled out across Scotland over the Autumn 07 and Spring 08.

There is almost 100% agreement amongst those that responded that additional staffing for single rooms in most patient settings is not required in a single room environment providing the following are in place:

- full and adequate staffing levels which support direct patient care hours
- adequate budget allocation for predictable absence - for training & supervision, continuous professional development and leave allowances.

With the right building blocks of workforce planning in place, day to day management of unplanned absence or unplanned fluctuations in patient activity or condition (not always built into department workforce plans), is no different if the environment is bays or single rooms.

There is a limited amount of literature published on single room provision and associated staffing. An excellent US paper describes some empirical evidence and observations:

> "Advantages and disadvantages of single versus multiple-occupancy rooms in acute care environments. A Review and Analysis of the Literature", Chaudury et al, ENVIRONMENT AND BEHAVIOR, Vol. 37 No. 6, November 2005 760-786.

Further information is available in the following 2 papers:

1. Ulrich, R et al., (2004). The role of the physical environment in the hospital of the 21st century: A once in a lifetime opportunity, Report to the Centre for Health Design.
2. Dowdeswell, B et al., (2004) Hospital Ward Configuration, Determinants Influencing Single Room Provision. NHS Estates England.

From this and the information gathered from nurse leaders and nurses, the following are some of the key considerations in terms of benefits and risks.

The benefits of single rooms to patients are clear:

- Reduced risk of cross-infection
- Increase privacy and dignity and confidentiality
- Increased opportunity for family and carers to be involved in caring process
- Reduced sleep disruption – light and noise
- Reduced need to be moved around ward or to another ward as condition/treatment plan changes or because of gender issues, therefore less likelihood of confusion.

"Infection originating in hospitals and other healthcare facilities is now recognised as a serious and widespread problem. Although standards of hygiene in healthcare facilities and standards of personal hygiene have been identified as likely sources of infection and infection spread, it can also be said that the design, planning, construction, refurbishment and ongoing maintenance of the healthcare facility also have an important role to play in the control of infection".

Property and Environment Forum. HAI-SCRIBE (Healthcare Associated Infection System for Controlling Risk in the Built Environment) Health Facilities Scotland (2005).

High level benefits are listed below but clearly more work is required in gauging what the financial benefits of these could be:

- Opportunity for higher occupancy – sometimes this can be restricted in open bay wards because of gender or clinical management. There is an estimate that 10% more throughput can be achieved in a single room environment

- Reduction in costs associated with patient transfers (boarders) to other areas because of gender issues.

- Reduced length of hospital stay due to a more conducive environment and reduced risk of infection – therefore reduced operating costs.

- Reduces staff costs in patient transfer time although more evidence for the UK is required.

Potential for reduced patient supervision

It is clear that within a single room environment there is reduced opportunity to visibly supervise patients and visitors. Investment in modern technology offers some solution

- Networked haemodynamic monitoring systems to central and designated areas
- Bed alarms and adequate side rails
- Windowed areas on walls/doors that can be screened for privacy when required
- Call/intercom systems that are fielded centrally to appropriate service – not always nursing – e.g. catering requirements can be directed to that dept and save on nursing time.

Patient assessment should include risk assessment for suitability of a single room. This is done at pre-admission assessment or on transfer/admission to the ward environment. Clearly workforce planning needs to take consideration of those patients who require additional supervision as this increases the nursing hours per patient day requirement. Additional supervision will also be prescribed within the treatment or care plan.

Unfortunately patient falls from bed are a genuine risk. Prevention is ongoing work for nurses and other healthcare staff. It is possible that it may take longer to notice a patient who has fallen in a single room and we need to think carefully about how this is managed both in terms of room layout and patient care.

Room doors are often left open and there is a substantial amount of passing ward traffic to hear calls for help or notice that a patient has fallen. Where possible, architectural design of observation windows in room walls and doors is useful.

Sudden acute changes in patient condition

In many cases this should be rare as early warning monitoring procedures are becoming more common in nursing, prompting the need to consider increased nursing hours to sicker patients or transfer to critical care areas to accommodate deteriorating patient conditions.

Patient Isolation

Patient Management

Socialisation of patients will be managed as part of the patient pathway or care plan. Encouragement of mobilisation where appropriate reduces length of stay and improves health.

It is very important that space and facilities are provided within the ward design or even out with the ward, to accommodate areas where patients can not only socialise but be provided with therapeutic activities, recreation and rehabilitation.

Technology

Television access, telephone and internet access in patient rooms can be put in place. This too needs to be managed so that patients do not forget to mobilise! However these services would be helpful for bed bound patients such as young orthopaedic trauma patients.

Patient Choice

Below is an extract of comments from a nurse director who was recently a patient in hospital:

> *"What struck me while being cared for in a 6 bedded room was that I had no choice around privacy, confidentiality, family involvement or just quiet time on my own. My view would be that a modern day healthcare facility should have a combination of rooms/areas that allows each patient to choose if and when they feel they wish to spend time privately or with the company of others."*

Modern day patients expect a lot a more from healthcare these days; not only in new technologies but in accommodation. Global travel, media coverage of healthcare associated infections and hospital cleanliness have fuelled patient demand and expectations of hospital accommodation. People do not usually choose to share accommodation with strangers but at the most intimate and emotional times of their lives (or that of a family member) they are expected to – in a hospital.

Patient Room Design

Other considerations need to be taken into account and factored into management and design arrangements, such as storage space within single rooms (often wall cupboards). Single rooms work most effectively when each room is stocked with basic care items to prevent unnecessary and time-wasting staff journeys around an increased ward footprint.

Reducing the number of beds in current multi-occupancy accommodation may be a 'quick-win' for patients in an effort to start improving patient accommodation. Patients dislike the middle beds in the six bedded areas so plans to move to four and then two bedded areas would be beneficial. Replacing 'privacy' curtains with retractable high visibility walls with screen options would further improve privacy and dignity. En-suite facilities, while desirable will not always be possible especially in hospitals that undergo refurbishment.

A public survey has been conducted and results are within the overall peer group report.

A survey was also undertaken during the latter quarter of 2006 of 'experienced' patients. That is – patients who have experienced the single room environment and can also compare to traditional NHS environments of shared accommodation. The findings are as follows:

Response

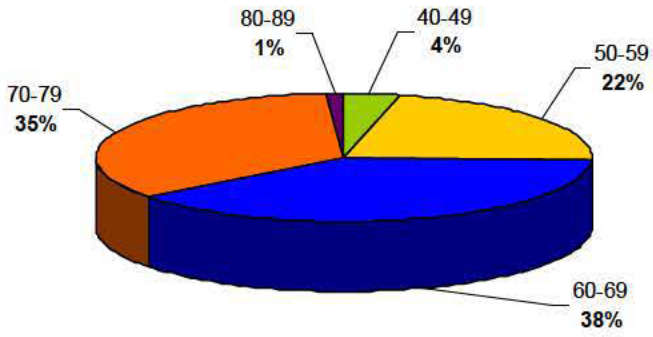
The following survey was carried out in the Golden Jubilee National Hospital where patients are cared for in single room accommodation. The average age of the patient (retrieved from the hospital information system) was between 60 – 70 years for cardiac surgery patients and 60 – 80 years for orthopaedic surgery patients.

Returns were received from 57 patients undergoing a variety of elective surgery; cardiac, orthopaedic and general. 81% of this group had experience of both shared accommodation and single room accommodation in hospitals. Overwhelmingly patients preferred a single room and the reasons for this are demonstrated below.

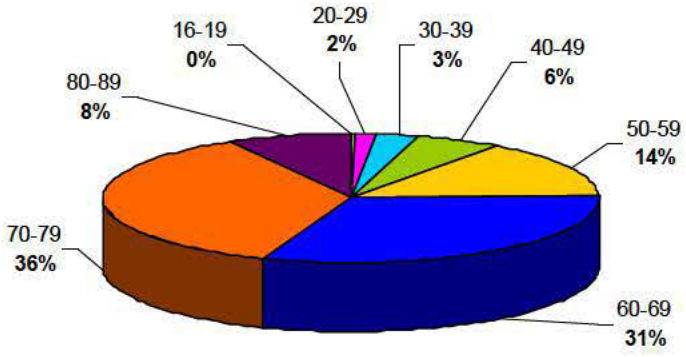
Table 2

The tables below demonstrate the age profile of patients around the time of the survey.

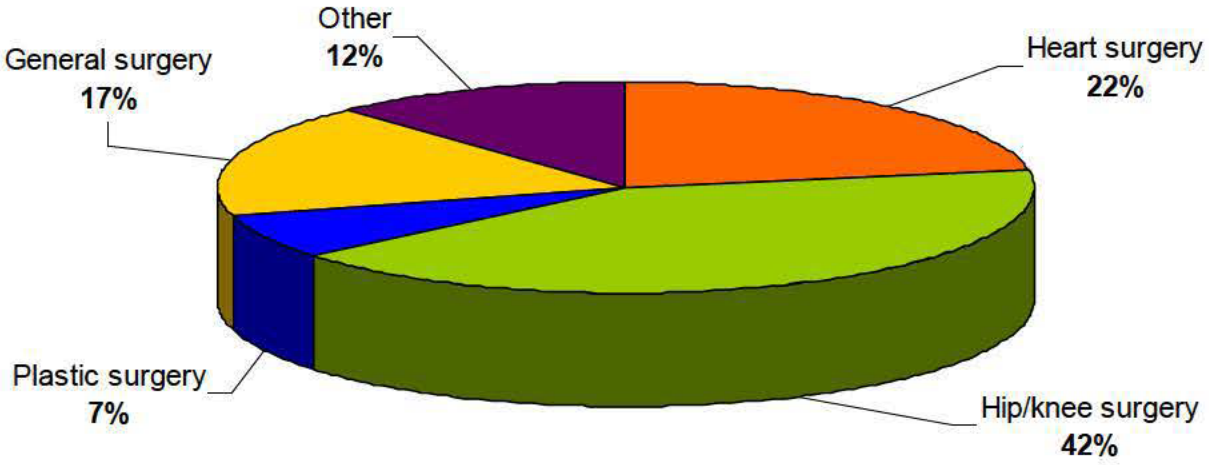
2a. Age Analysis of Cardiac Surgery Inpatient and Daycase Admissions October 2006-January 2007



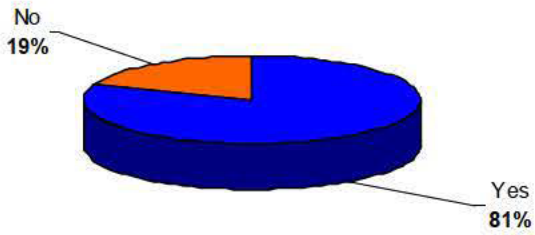
2b. Age Analysis of Orthopaedic Surgery Inpatient and Daycase Admissions October 2006-January 2007



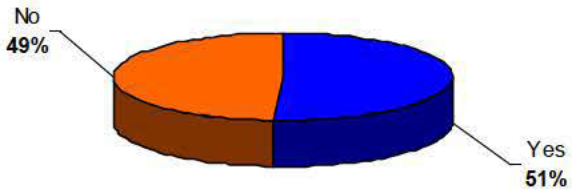
Q1. What type of treatment did you have in hospital?



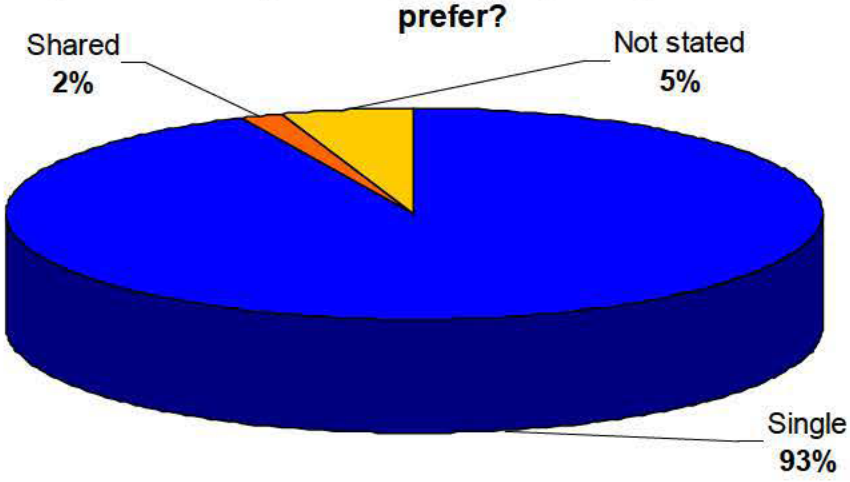
Q1a. Have you ever stayed overnight in hospital in a shared area/open ward environment?



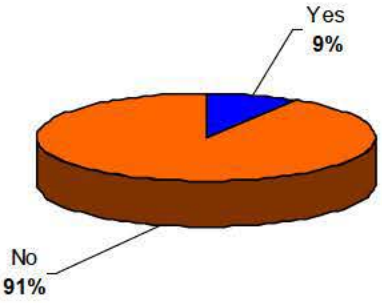
Q1b. Have you ever stayed overnight in hospital in a single room environment?



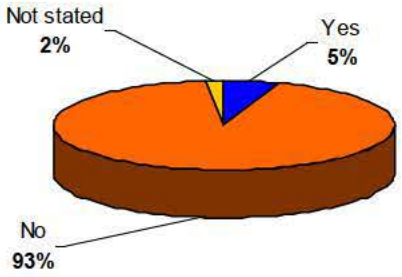
Q1c. If you had to stay overnight in hospital again, what would you prefer?



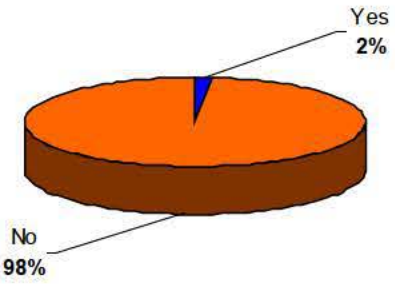
Q2a. Single room - did you feel lonely at any time?



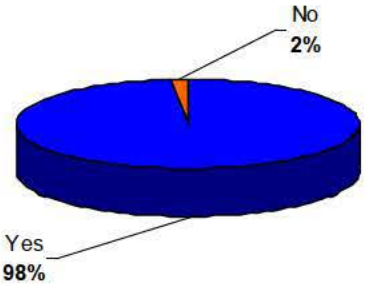
Q2b. Single room - did noise disturb your sleep?



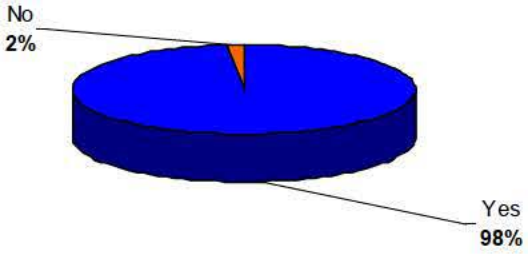
Q2c. Single room - did you feel it was difficult to get the attention of the nursing staff?



Q2d. Single room - did you feel a single room was better for your family/friends to visit?



Q2e. Single room - did you feel you could discuss personal matters in confidence without other patients hearing?



Q2f. Single room - did you feel you had more privacy?

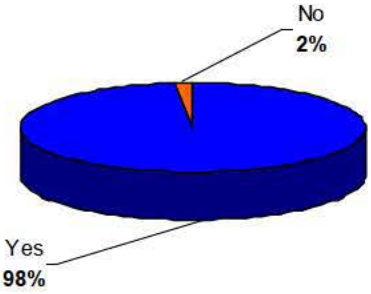
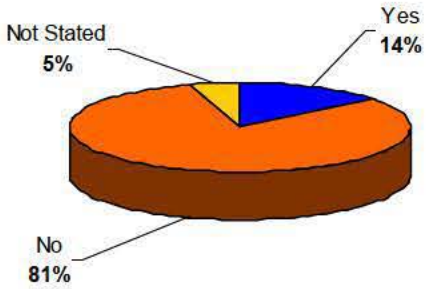
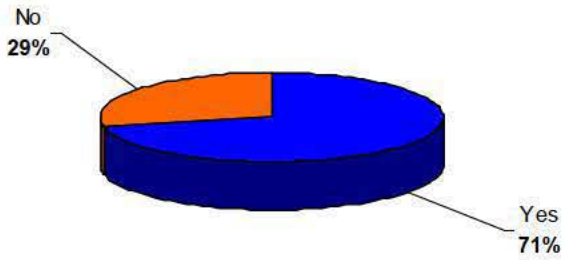


Table 3c

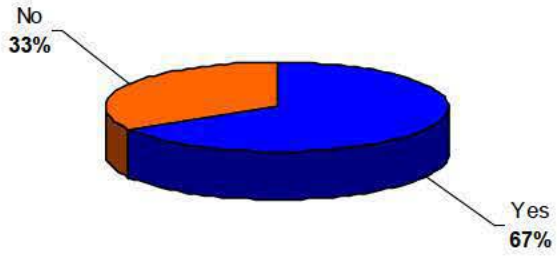
Q3a. Shared room - did you feel lonely at any time?



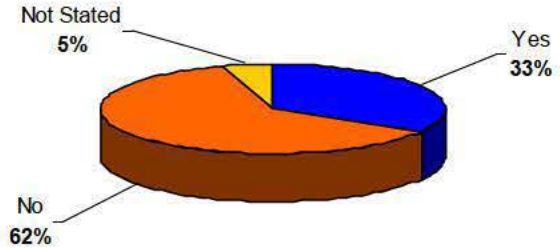
Q3b. Shared room - did noise disturb your sleep?



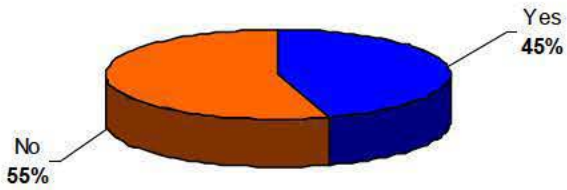
Q3c. Shared room - did light from the nursing station or other bed areas disturb your sleep?



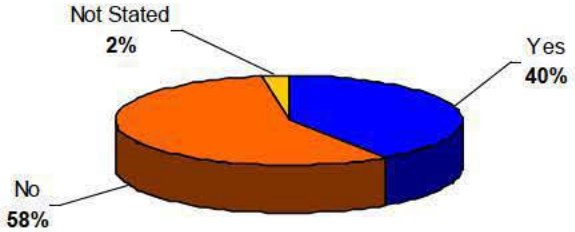
Q3d. Shared room - did you feel it was difficult to get the attention of the nursing staff?



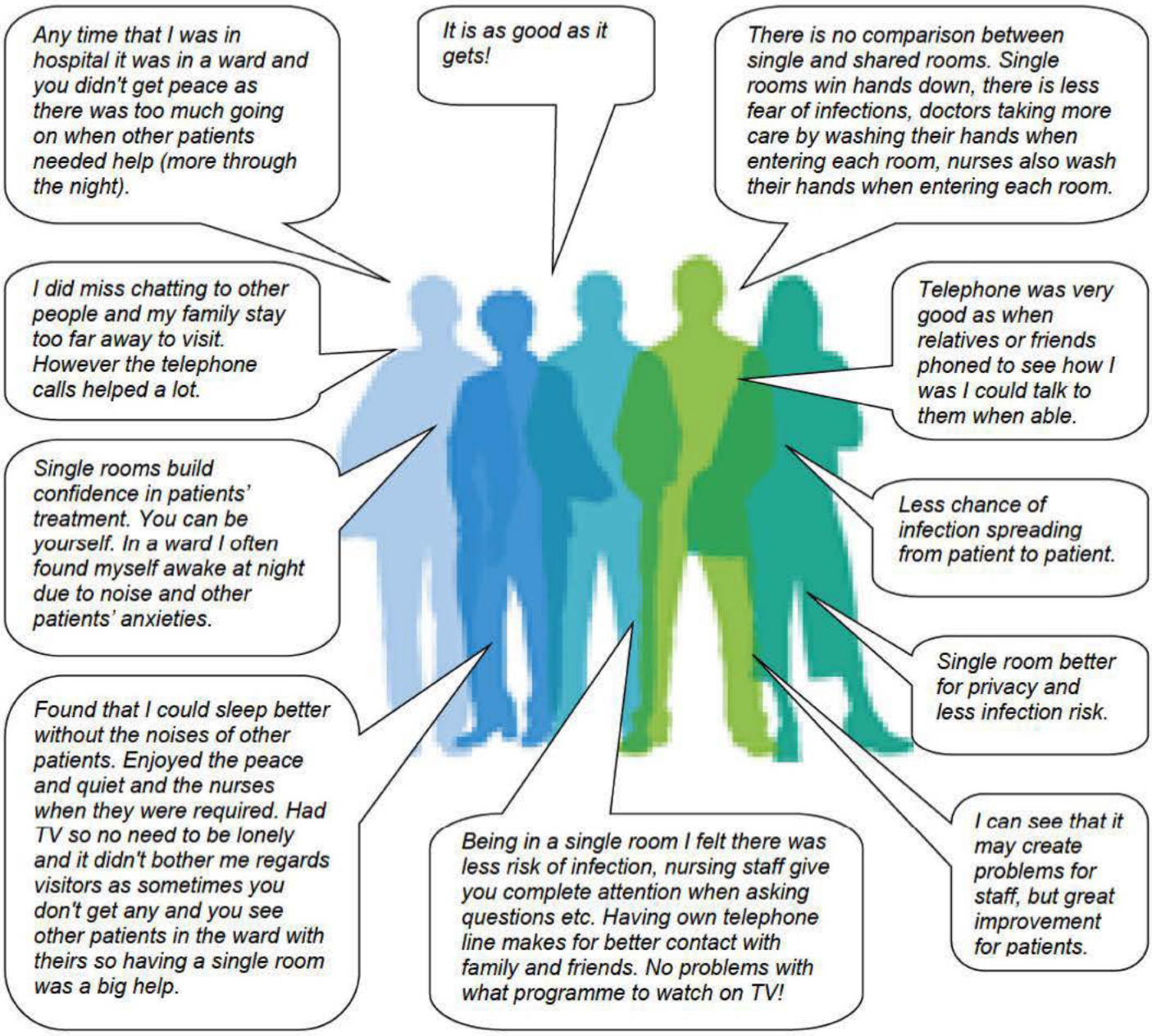
Q3f. Shared room - did you feel you could discuss personal matters in confidence without other patients hearing?



Q3g. Shared room - did you feel that you had more privacy?



Patient comments received



It is also important to note that at a recent option appraisal process in Ayrshire and Arran regarding the Provision of Continuing Care, it was made clear that "older people" would like the choice of single room accommodation. Although many agreed that they like the privacy and dignity aspects afforded by single rooms, as many felt they would feel isolated, therefore it is important to note this in the planning of social areas and treatment regimes. These comments were generated at Public Meetings throughout Ayrshire and submitted to the Board at the end of the consultation.

This is particularly important when moving long stay patients from a multi room environment to a single room environment where, unless there is excellent communication and support, patients

could feel they are being punished by being put into a single room. This would apply more in care of the elderly or mental health/ learning disability environments.

Sixty-one percent of patients in the NHS in Scotland are over 65 years and around 30% of NHS in-patient beds in Scotland are for geriatric or psycho-geriatric patients (NHS ISD Scotland).

Carers and Visitors

In a single room environment there is greater opportunity for carers/ family members to be involved in care delivery and some rooms could be made large enough to accommodate an extra bed for the carer.

Open visiting or flexible/longer visiting times allows carers/visitors opportunities to visit at times that can be suitable to them that fit in with patient care and avoids the crowding of visitors traditionally seen in afternoons and evenings.

Single rooms accommodate the changing clinical conditions of patients or gender issues and as such can reduce the need for transfer around a ward or between wards. This in turn can reduce the housekeeping and catering workload that occurs when patients are moved around to accommodate other patients or changed management in an open ward setting.

Conversely if patients are moved from room to room more than once in their hospital episode, this puts additional strain on housekeeping as it is not just the bed space that requires cleaning but the whole room (and en-suite). It is also noted that some areas do not have dedicated domestic services or housekeepers and it is the nurses' responsibility to clean the patient areas. However as hospital accommodation is redesigned, there lies an opportunity to review and examine the skill mix within the patient areas and the development of new roles e.g. Housekeeper, Healthcare Assistant.

Protected meal times afford patients time to enjoy their food as much as possible without interruption. This is possibly more achievable in a single room environment. As different patients have different eating habits and issues, single rooms offer a private space for dignity during mealtimes. On the other hand an area for social dining allows for social interaction and can reduce any feelings of isolation.

Across the United Kingdom

The Department of Health in England are undertaking a research project on the feasibility of single rooms and have allocated a 'test' single roomed area at the Hillingdon Hospital in Middlesex.

Causes for concern in relation to single rooms relate to visibility of staff/patients, increased staff workload and lack of social interaction. Although existing evidence from the US and other countries in Europe suggests that the advantages vastly outweigh the disadvantages of single rooms, there is insufficient UK evidence based on the current model of care.

The Hillingdon Hospital NHS Trust plans to rebuild the Hillingdon Hospital under a Private Finance Initiative to provide accommodation to replace its current outdated facilities.

The OBC was to provide 50% single bedroom accommodation. Since the development of the OBC the Trust has revisited its position on single bedrooms and is now considering the impact of increasing to 100% provision. To test the viability of this proposition in advance of the new hospital, the Trust embarked on an initiative to build a fully enabled pilot project comprising a 24-bed unit of single bedrooms with ensuite facilities and supporting accommodation.

Central to the initiative is the plan to test the prototype accommodation in use through an evidence-based programme of research. By collecting sound evidence concerning the effects of the pilot project unit on several outcomes, the research will generate important knowledge concerning the performance of the prototype design, and make possible evidence-based refinements to the final design brief.
Across the four countries of the UK there is a drive to introduce much more single room accommodation in new hospital builds, although this may equate to less than 10% of the overall in-patient accommodation. The issues are similar across the board in terms of patient perceptions

and needs for socialization versus the need for privacy and dignity, coupled with concerns over staffing capacity in areas where skilled nursing staff to patient ratios are low.

Scottish Initiatives

With single room accommodation already in place in some hospitals and new hospitals with significant single room capacity being commissioned year on year in Scotland, it seems that a study could be undertaken in this country *or* more research collaboration across the four countries to provide real time learning for other Boards embarking on new builds or on refurbishment of existing premises.

- **New Galloway Hospital** – Stranraer. This is built around a capacity of 30% single rooms. The Nurse Director of this Board suggests that already staff find that more single rooms would have been beneficial.

- **New Larbert Hospital** – there will be 50% single room accommodation in this hospital.

- **New Southern Hospital** – Glasgow. The outline business case proposes 50% single rooms.

- **Wishaw General** Maternity facility which has Labour, Delivery, Recovery and Postpartum Rooms where women stay for the duration of their stay.

- **East Ayrshire Community Hospital** – 100% single room accommodation. The Nurse Director of this Board agrees that more single rooms should be provided in hospitals but that they may often be filled with the increasing numbers of infected patients or with those that are terminally ill.

- In the **Western Isles** staff are finding via HAI risk assessment that the default is that almost everyone should go into a single room and almost everyone has enough risk factors to require screening.

- The nurse survey outlined above confirms the most common uses of single rooms are for infected or terminally ill patients.

- The **State Hospital** has also had an OBC approval for a 90% re-build of the entire site; this will include the provision of 100% single en suite bedrooms.

- **The Golden Hospital Jubilee National** in Clydebank currently has 98% single en suite rooms. This is currently an elective facility for cardiac, orthopaedic and general surgery but will become a regional heart and lung centre with possibly the largest ICU and HDU facilities in the country. In these critical care areas, the single rooms are glass fronted with joining doors into adjacent rooms.

- **Mid Argyll Hospital,** now part of NHS Highland, was opened last year. It has 66 beds of which 53% are single.

- **Hawick Hospital** in the Borders opened in July 2005, has 50 beds of which 24% are single.
- **Victoria Infirmary** in Kirkcaldy being procured will be around 50% single rooms

- **St Andrew's Community Hospital** has 40 beds of which 40% are single. Building is due to start in 2007.
- **Clackmannanshire Community Hospital** has 45 beds of which 82% are single.
- **Easter Ross Community Hospital** has 66 beds of which 44% are single.
- **Stonehouse Hospital** has 98 beds of which 40% are single.
- **Forfar Community Resource Centre** has 77 beds of which 60% are single.

Conclusions

Senior nurses are much more aware of the proposals to increase the numbers of single rooms in hospitals. They are enthusiastic about the opportunity to be involved and are keen to explore and comment on innovative designs and new technology and make suggestions on how this will support and enhance the provision of patient healthcare.

In balancing this report, nurse directors and others considered whether there was a need to preserve some multi-occupancy rooms in some patient care areas where patients are more dependent on basic nursing care and where patient mobility is reduced. Such patients can feel insecure and are reassured by nurse visibility in the area. This should be achieved by adequate staffing levels. The consensus within this report is that 100% single room accommodation should be the starting point with risk assessment processes identifying why this shouldn't be the case for some specialities.

Finally, consensus amongst nurse directors is that single room accommodation in itself should not increase the number of nurses required to care for patients. However where staffing levels are already compromised, these may be exacerbated by 100% single room accommodation.

Summary of Recommendations:

1. Development of risk assessment processes to identify why patients should not be cared for in single rooms.

2. Review of housekeeping and care assistant roles which would support the domestic management of single rooms.

3. A requirement for adequate social areas and planned activities built into care plans to encourage mobility out of single room and reduce isolation.

4. A requirement for good planning of storage space in single rooms and within ward areas.

5. Good planning and investment in technology to support the care of patients in single rooms.

6. Adequately designed and properly tested nurse staffing levels.

7. More evidence based UK research into the benefits and risks of single room accommodation.

Patient Isolation Prioritisation and Assistance with Isolation Prioritisation Risk Assessment

1. Single rooms and isolation rooms (which usually are designed with a lobby) are not the same and patients in the mandatory (must isolate) isolation category should be prioritised for isolation rooms. Single rooms may be used if isolation rooms are not available but such a situation arising should be flagged with the infection control team during working hours.

2. Occupants of all single rooms should be reviewed daily by the clinical team managing the patient with regard to their placement and why they are still occupying a single room and whether there is an ongoing need for isolation. This will include consideration of patients receiving end of life care.

3. The optimal and safe placement of patients with known or suspected infection and the patients who they may have contact with should be foremost in planning isolation prioritisation.

4. In prioritising isolation rooms, particularly where there is demand for single rooms is greater than capacity, staff must consider:
   - The organism/disease (confirmed or probable) – see table 1
   - Patient symptoms (presenting patient)
   - Type of ward/environmental factors, and
   - Risk profile of other patients in immediate area

5. If isolation is mandatory or preferable but not possible, the inability to isolate presents a significant clinical risk to patients and should be escalated to:
   - the site and capacity team, and
   - the clinical nurse manager/senior nurse on call for the area, and
   - the infection prevention and control team

6. Immediate actions required by ward staff:
   - Arrange increased frequency of bed space cleaning immediately (using Chlor clean)
   - Reinforce and promote staff hand hygiene
   - Ensure compliance with the appropriate transmission based precautions (TBPs) enforced
   - Consider restriction of any patient movement from the room or bay where the patient has been placed
   - A clear risk assessment should be documented in case notes as to why isolation has not occurred

7. If site & capacity staff or clinical teams are uncertain how to apply any part of this guidance; or prioritise a single room between two or more patients with conditions on this the list; a Microbiologist, Virologist or Infection Prevention & Control Nurse **MUST** be contacted to agree prioritisation of single room accommodation.

Table 1: Isolation Priorities

Mandatory Isolation **Must Isolate**	**Isolation** **Optimal and Preferable** Further risk assessment required See Appendix	**Isolation** **Not Required**
Viral	**Viral**	**Viral**
Unexplained loose stool, diarrhoea [1] and vomiting (i.e. suspected infectious diarrhoea or proven Norovirus or Sapovirus) [2]	Hepatitis A [14,24]	Viral Haemorrhagic Fevers that do not generally transmit directly person to person e.g. Dengue, Chikungunya, West Nile Fever
Community acquired respiratory infection with cough and fever >38°C pending viral investigation results [3,4]	Hepatitis E [14]	Viral Meningitis
Respiratory Syncytial Virus (RSV) [4]	Shingles [15] if vesicles are on face or if patient is immunocompromised	Rhinovirus [3,4]
Adenovirus [3,4]	Mumps	HIV
Human Metapneumovirus [3,4]	Coronavirus non-MERS or non-COVID-19 [3,4]	Hepatitis B [20]
Measles		Hepatitis C [20]
Middle Eastern Respiratory Syndrome (MERS) [5]		Glandular Fever or Epstein Barr Virus infection
Parainfluenza [3,4]		Herpes Simplex Virus (HSV)
Viral Haemorrhagic Fevers [5] suspected or proven with direct person to person transmission e.g. Ebola, Lassa Fever, Congo Crimean Fever		Cytomegalovirus
Rubella		
Chicken Pox (Varicella) Any patient with an undiagnosed vesicular rash		
Vesicular rash due to a enterovirus		
Influenza A or Influenza B [4,6]		
Rotavirus		
Bocavirus [3]		

Mandatory Isolation Must Isolate	Isolation Optimal and Preferable Further risk assessment required See Appendix	Isolation Not Required
Bacterial	**Bacterial**	**Bacterial**
Clostridioides difficile toxin positive with diarrhoea [1]	Non Pulmonary (Closed) TB or smear negative pulmonary TB [16]	Non Tuberculous Mycobacteria e.g. *M. avium, M. intracellulare* and *M. abscessus* etc. [21]
Clostridioides difficile toxin equivocal with diarrhoea [1]	Necrotising Fasciitis [17]	Legionella
Untreated Smear Positive Pulmonary (Open) TB [5,7]	MRSA [18]	*Clostridioides difficile* toxin positive with no diarrhoea for >48 hours [1]
Drug Resistant TB [5]	Mycoplasma [3,4]	*Clostridioides difficile* toxin equivocal with no diarrhoea [1]
Streptococcus pyogenes (Group A Strep) infections including Scarlet Fever (untreated or within 48 hours of starting antibiotics) [8]	Multidrug resistant (MDR) Gram-negative bacteria [19]	Invasive meningococcal disease (meningitis or septicaemia) after first 24 hours of antibiotic treatment
Panton Valentine Leukocidin (PVL) producing *Staphylococcus aureus* or PVL producing MRSA (with active soft tissue infection) [9]	*Haemophilus influenzae* [3] (from respiratory samples) *Streptococcus pneumoniae* [3] (from respiratory samples)	*Streptococcus pyogenes* (Group A Strep) infection after first 24 hours of antibiotic treatment and evidence of a clinical response (e.g. resolution of temperature, normalisation of pulse and blood pressure, resolving cellulitis) [8]
Bordetella pertussis (Whooping cough) [25]		*Stenotrophomonas maltophilia* [21]
Salmonella with diarrhoea [1]		*Burkholderia cepacia* [21]
Salmonella typhi or *Salmonella paratyphi* (carriage or infection)		*Pseudomonas aeruginosa* [21]
Shigella (carriage or infection)		*Listeria monocytogenes* [21]
Campylobacter with diarrhoea [1]		
Verotoxin Producing *E. coli* (VTEC) (carriage or infection)		
Gram-negative organisms resistant (or intermediate) to Meropenem e.g. CPE, Acinetobacter [10,11,12]		
Extremely Drug resistant (XDR) Gram-negative bacteria		
Suspected bacterial meningitis but pathogen unknown		

Mandatory Isolation Must Isolate	Isolation Optimal and Preferable Further risk assessment required See Appendix	Isolation Not Required
Bacterial Continued		
Petechial rash with fever or other manifestations of invasive meningococcal disease (meningitis or septicaemia) within first 24 hours of antibiotic treatment.		
Neutropenic sepsis (post cytotoxic chemotherapy) [13]		
Vancomycin Resistant Enterococci (VRE)		
Other	**Other**	**Other**
Body Lice	*Pneumocystis jirovecii* [23]	Cryptococcal meningitis
		Intestinal parasites with no diarrhoea [1]
		Head Lice
		Scabies

Adapted from CDC 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

Table 2: Risk factors affecting isolation priority

Risk Factors For Transmission of Infection
Consider the following factors to allocate isolation rooms where demand is greater than single room capacity for patients with the same infection

	Higher Risk of Transmission	Lower Risk of Transmission
Source Patient	• Incontinent of Stool • Loose stool or diarrhoea • Discharging skin lesions • Skin lesions not dressed or covered • Requires extensive hands on care • Is immunosuppressed • In ITU • Has invasive devices in situ • Poor compliance with personal hygiene or infection control practices e.g. cognitively impaired, Coughing patient (within 1 metre of other patients)	• Continent • Good personal hygiene • Skin lesions or wounds covered by dressings • Good respiratory hygiene • Able to self care • Complies with infection control precautions
Pathogen	• Survives well in environment (e.g. C difficile, *Streptococcus pyogenes*) • Low infective dose (e.g. E coli 0157, Shigella, norovirus) • Airborne (e.g. influenza, RSV) • Spread by direct contact (e.g. MRSA) • Able to colonise devices • Can have an asymptomatic carrier state (e.g. MRSA)	• Unable to survive long in environment • High infective dose • Low pathogenicity (e.g. campylobacter) • Short period of infectivity
Ward Environment	• Poor ward hygiene • Shared equipment • Equipment not adequately decontaminated between patients • Crowded facilities • Shared facilities (e.g. showers, baths, toilets, commodes, taps) • High patient to nurse ratio • Normal pressure ventilation and airborne pathogen	• Good ward hygiene • Dedicated equipment • Adequate bed spacing • Dedicated toilet and bathroom facilities • Low patient to nurse ratio
Susceptibility of potential contacts if source patient not isolated	• ITU patients • Patients requiring extensive hands on care • Indwelling devices or invasive procedures being performed • Non intact skin • Debilitated, malnourished • Extremes of age • Recent antibiotic treatment • Immunosuppression • Not immunised against circulating pathogen (e.g. influenza)	• Able to self care • No indwelling devices • Intact skin and mucous membranes • Normal immune system • Immunised against circulating pathogen

Adapted from Routine Practices and Additional Precautions For Preventing The Transmission of Infection in Health Care Settings (2013) Public Health Agency of Canada

Appendix: Explanatory Notes for Situations Listed in Table 1

[1] World Health Organisation definition of diarrhoea is, “the passage of three or more loose or liquid stools per day (or more frequent passage than is normal for the individual). Frequent passing of formed stools is not diarrhoea, nor is the passing of loose, "pasty" stools by breastfed babies.”

[2] If patient has vomited or had diarrhoea within a multiply occupied area then the whole area/bay should close to admissions and transfers and the whole area/bay cleaned with Chlor Clean. The source patient should be isolated if possible and the remaining patients cohorted for observation of symptoms of D&V over the following 48 hours. If no single rooms are available for the source patient they should remain in the closed area cohorted with the other exposed patients.

[3] If patient febrile (>38ºC), coughing or sneezing then isolation is a priority but if has positive laboratory test but none of the above symptoms then isolation is not absolutely necessary as long as not in direct contact with immunocompromised patients or patients with chronic lung disease or cardiac disease. The need for isolation of respiratory infections is often driven more by the susceptibility of contacts than the pathogenicity of the organism e.g. effects are much more severe in patients undergoing cytotoxic chemotherapy and bone marrow transplant. There order of priority for isolation with respiratory viral infections is adenovirus takes priority over human metapneumovirus which takes priority over parainfluenza which takes priority over rhinovirus.

[4] If within 1 metre of patient who is coughing a fluid repellent fluid shield and eye protection should be worn. If performing aerosol generating procedures then an FFP3 mask should be worn.

[5] Negative pressure isolation room should be used. Transfer of an already isolated patient with a novel or emerging pathogen (e.g. MERS) solely to accommodate in a negative pressure room is not advised.

[6] Close contacts of influenza patients prior to their isolation may benefit from post exposure prophylaxis with oseltamivir. The influenza vaccination history of close contacts must also be known to assess their risk of secondary infection.

[7] Patient can only be removed from isolation once the following criteria are met:

- The patient has had a minimum of 14 days of appropriate therapy **and**
- The patient has had at least 3 consecutive negative sputum smears taken on separate days, or complete resolution of cough **and**
- The patient has had a definite clinical improvement as a response to therapy, for example remaining afebrile for 1 week **and**
- The patient has demonstrated tolerance to therapy and ability to agree to adhere to treatment **and**
- Advice has been sought from a member of the Infection Prevention and Control Team (IPCT) before removing a patient from isolation. The IPCT should ensure that the patient is not placed by patients who are immuno-compromised

[8] If treatment is only partial (e.g. devitalised or necrotic tissue or ulcer remains) carriage (and risk of onward transmission) can remain for up to 6 months. If there is a risk or evidence (e.g. *S. pyogenes* continues to be cultured from the patient) of persisting carriage, patient should remain in isolation until negative sample cultures are received. Clearance sampling should be collected 72 hours after antibiotics have stopped.
Examples of patients that should remain in isolation are:

- Patients with significant discharge of infectious bodily fluid
- Patients with significant discharge of infectious bodily fluids
- Patients with invasive Group A Strep (iGAS) infections
- Patients with infected eczema or other skin conditions associated with significant skin shedding
- Mothers and neonates on maternity units
- Patients on burns units

[9] Active lesions should also be covered with an appropriate dressing.

[10] Isolation must continue for the entire duration of the admission and should optimally occur within 6 hours of organism identification.

[11] Does not include *Stenotrophomonas maltophilia* which is always resistant to Meropenem.

[12] Screening of the source patient and contacts will be required. Discuss with infection control team.

[13] Isolation is to protect the patient from the environment and ideally the room should be under positive pressure compared to the corridor. If not possible normal atmospheric pressure is acceptable but negative pressure should not be used. Note that only patients who are neutropenic post cytotoxic chemotherapy require isolation, a transient drop in neutrophils below 1×10^9/L can occur in severe sepsis in immunocompetent people but in such patients neutrophils have transiently left the blood stream and are functional at the site of infection and so isolation is not required.

[14] Only needs isolation if PCR positive. Isolation not required if only serology is positive.

[15] Vesicles should be covered and patient should not be in contact with immunocompromised, non-immune or pregnant individuals. Shingles on the face or in individuals who are immunosuppressed should be treated as per chickenpox.

[16] If there is significant exudate or drainage then isolation is preferable. Only patients on appropriate treatment with evidence of response to treatment should be considered as appropriate candidates not to isolate. Any tuberculous lesions must be enclosed within the body or covered and the patient must not come into contact with immunocompromised patients.

[17] If the causative organism is not *Streptococcus pyogenes, Bacillus anthracis* or PVL producing MRSA or PVL producing MSSA isolation is not required.

[18] If patient is exuding body fluids, incontinent or shedding significant volumes of skin squames then isolation should be considered mandatory.

[19] Should be resistant to 3 or more of the following classes of antibiotic e.g. β-lactams (such as amoxicillin, coamoxyclav, piperacillin-tazobactam, temocillin) cephalosporins (ceftriaxone, cefalexin, cefuroxime), monobactams (aztreonam), aminoglycosides (gentamicin, amikacin), fluoroquinolones (ciprofloxacin, levofloxacin), glycylcyclines (Tigecycline) to merit isolation. Isolation should be prioritised if patient has loose stools or diarrhoea or discharging wounds. The requirement for isolation is prioritised as ESBL producing *Klebsiella sp.* > carbapenem resistant *Pseudomonas aeruginosa* > ESBL *E. coli* > AmpC producing Enterobacteriaceae.

[20] Isolation is not required if there is little possibility of body fluid contamination of the environment. If patient is bleeding or at risk of contaminating environment with body fluids (e.g. active bleeding) consider isolating. Patients for haemodialysis MUST be isolated.

[21] Isolate if patient has cystic fibrosis and/or likely to be in close contact with patients with cystic fibrosis, bronchiectasis or lung transplant.

[22] Presents a risk to pregnant individuals, neonates and immunocompromised patients and so may need to isolate the patient with Listeria infection if contact with such people is likely.

[23] Do not isolate in a ward with transplant patients.

[24] Post exposure vaccination should be considered for non immune contacts.

[25] If the patient has not been treated with appropriate antibiotics for a full 5 days- discuss with Microbiologist. Respiratory protection is required by staff (surgical face mask) until 5 days of appropriate antibiotic treatment is complete.

Appendix 11 – Best Practice - Aide memoire for Optimal Patient Placement and Respiratory Protective Equipment (RPE) for Infectious agents whilst a patient is in hospital

The clinical judgement and expertise of the Infection Prevention and Control Team or the Health Protection Team should be sought for novel, unusual or an increase in cases of known or suspected infectious agents in any care setting. This table is for infection prevention and control measures i.e. to minimise risk of cross-transmission of infection to self and others when providing direct patient care. This is distinct for example from the principles of contact tracing where the patient will have commenced antibiotic therapy and the interviewer will be at least 3 feet (1 metre) apart. For guidance on recommended PPE, see Appendix 16.

The following table outlines the TBPs required for a number of infectious agents/diseases primarily;

- Optimal patient placement whilst the patient is considered infectious; and
- The recommended RPE to minimise risk of cross infection to staff, patients and visitors.
- Clinical decisions made by staff regarding use/non-use of RPE will depend on a risk assessment which should include e.g. the presenting symptoms, risk of acquisition and the availability of treatment.

Suspected or confirmed Pathogen	Disease	Mode of transmission	Optimal placement whilst patient is considered infectious and until resolution of symptoms	Respiratory protection (RPE) for healthcare workers whilst patient is considered infectious[3]	Notifiable under Public Health (Scotland) Act 2008[5]
Acinetobacter baumannii	Pneumonia, bacteraemia, skin and soft tissue infections.	**Contact**	Single en-suite room in high risk settings e.g. ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
Adenovirus[1]	Upper +/- lower respiratory tract infection	**Droplet**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No
	Conjunctivitis, gastroenteritis	**Contact**	Single en-suite room	No requirement for RPE	No

Suspected or confirmed Pathogen	Disease	Mode of transmission	Optimal placement whilst patient is considered infectious and until resolution of symptoms	Respiratory protection (RPE) for healthcare workers whilst patient is considered infectious[3]	Notifiable under Public Health (Scotland) Act 2008[5]
Bacillus anthracis	Injection, inhalation, gastrointestinal or cutaneous Anthrax	**Contact**	Single en-suite room	No requirement for RPE	Yes
Bacillus cereus	Gastroenteritis, sepsis, pneumonia, endocarditis, central nervous system (CNS) and ocular infections	**Contact**	Single en-suite room	No requirement for RPE	Yes
Bacteria with exceptional resistance (see Appendix 13 for full list)	Single en-suite room. For RPE seek advice from IPC team.				
Bordetella pertussis	Whooping Cough	**Droplet**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs until patient has been established on appropriate antimicrobial treatment[6]	Yes
Candida auris	Ear, wound and bloodstream infection	**Contact**	Single en-suite room in high risk settings e.g. ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
Carbapenemase producing Enterobacteriacea e (CPE) (either swab positive or positive as per clinical risk assessment criteria)	Colonisation, device associated infections – urinary tract infection, catheter associated bacteraemia	**Contact**	Single en-suite room	No requirement for RPE	No

Suspected or confirmed Pathogen	Disease	Mode of transmission	Optimal placement whilst patient is considered infectious and until resolution of symptoms	Respiratory protection (RPE) for healthcare workers whilst patient is considered infectious[3]	Notifiable under Public Health (Scotland) Act 2008[5]
Chlamydia pneumoniae	Pneumonia	**Droplet**	Single en-suite room in high risk settings e.g. ICU/PICU/NICU, oncology/haematology	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No
Clostridioides difficile	Clostridioides difficile infection (CDI)	**Contact**	Single en-suite room	No requirement for RPE	Yes
Coronavirus [1 4] (Non SARSCoV/ MersCoV)	Respiratory symptoms	**Droplet**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No
Coronavirus [1 4] (SARS-CoV-2 / COVID-19)	Respiratory symptoms	**Droplet**	High Risk (Red) Pathway and ideally single en-suite room or confirmed COVID19 cohort.	Fluid Resistant surgical facemask (FRSM) for routine care and FFP3 or hood for AGPs	Yes
Corynebacterium diphtheria or *Corynebacterium ulcerans*	Diphtheria – Cutaneous, Pharyngeal (toxigenic strains)	**Contact, Droplet (If Pharyngeal)**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs (if pharyngeal)	Yes
Enterovirus D68	Mild to moderate upper respiratory tract infections, can cause severe respiratory illness and rarely acute flaccid myelitis (AFM)	**Droplet**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No
Gastrointestinal infections e.g *Salmonella* spp.	Gastroenteritis	**Contact**	Single en-suite room	Fluid resistant surgical facemask (FRSM) **if vomiting is present.**	(Some GI Infections are notifiable. Refer to guidance)

Suspected or confirmed Pathogen	Disease	Mode of transmission	Optimal placement whilst patient is considered infectious and until resolution of symptoms	Respiratory protection (RPE) for healthcare workers whilst patient is considered infectious[3]	Notifiable under Public Health (Scotland) Act 2008[5]
Haemophilus influenzae type b	Epiglottitis, meningitis, pneumonia, septicaemia	**Droplet**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs until patient has been established on appropriate antimicrobial treatment[6]	Yes
Hepatitis A virus	Hepatitis, Gastroenteritis	**Contact**	Single en-suite room	Fluid resistant surgical facemask (FRSM) **if vomiting is present.**	Yes
Herpes zoster (Shingles) (varicella-zoster) [2]	Shingles (vesicle fluid)	**Contact**	Single en-suite room If lesions cannot be covered	No requirement for RPE	Yes
	Shingles (lesions in the respiratory tract)	**Droplet/airborne**	Isolation room/suite	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	Yes
High consequence infectious diseases (HCID)[7]	Severe respiratory illness, pneumonia, encephalitis, gastroenteritis, multi-organ failure, systemic haemorrhaging,	Contact or Airborne – see PHE List of HCIDs	High level isolation unit Or Negative pressure and ante-room within an Infectious Diseases Unit Or Isolation room/suite	FFP3 for routine care and AGPs	Yes
Influenza virus (Endemic strains)[4]	Influenza	**Droplet**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	Yes
Measles virus[2]	Measles (rubeola)	**Droplet/ Airborne**	Isolation room/suite	FFP3 or Hood for routine care and AGPs	Yes
Methicillin resistant *Staphylococcus aureus* (MRSA) (either swab positive or positive as per clinical risk	Colonisation, skin and wound infections, endocarditis, pneumonia, osteomyelitis, urinary	**Contact**	Single en-suite room	FFP3 or Hood for AGPs only if pneumonia	Yes

Suspected or confirmed Pathogen	Disease	Mode of transmission	Optimal placement whilst patient is considered infectious and until resolution of symptoms	Respiratory protection (RPE) for healthcare workers whilst patient is considered infectious[3]	Notifiable under Public Health (Scotland) Act 2008[5]
assessment criteria)	tract infections and bacteraemia.				
Mumps virus[2]	Mumps (infectious parotitis)	**Droplet**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	Yes
Mycobacterium tuberculosis complex	Extrapulmonary Tuberculosis	**Contact**	Single en-suite room	FFP3 or Hood for AGPs	Yes
	Pulmonary or laryngeal disease Tuberculosis	**Airborne**	Isolation room/suite until patient has been established on appropriate antimicrobial treatment[6] and always if the patient has MDR or XDR TB	FFP3 or Hood for routine care and AGPs until patient has been established on appropriate antimicrobial treatment[6] and always if the patient has MDR or XDR TB	Yes
Mycoplasma pneumoniae	Pneumonia	**Droplet**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No
Neisseria meningitides	Meningitis – meningococcal (Or presentation of clinical meningitis of unknown origin), septicaemia	**Droplet**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs until patient has been established on appropriate antimicrobial treatment[6]	Yes
Norovirus	Winter vomiting disease	**Contact**	Single en-suite room	Fluid resistant surgical facemask (FRSM) **if vomiting is present.**	Yes
Novel coronavirus[4]	Severe respiratory illness with/out gastroenteritis, pneumonia	May be unknown, assume airborne until further information available.	Isolation room/suite	FFP3 or Hood for routine care and AGPs	Yes

Suspected or confirmed Pathogen	Disease	Mode of transmission	Optimal placement whilst patient is considered infectious and until resolution of symptoms	Respiratory protection (RPE) for healthcare workers whilst patient is considered infectious[3]	Notifiable under Public Health (Scotland) Act 2008[5]
Panton Valentine Leukocidin (PVL) – positive *Staphylococcus aureus*	Skin and soft tissues infection, necrotising pneumonia, necrotising fasciitis, osteomyelitis, septic arthritis and pyomyositis, purpura fulminans	**Contact**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs (only if pneumonia)	No
Parainfluenza virus[1]	Upper +/- lower respiratory tract infection	**Droplet**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No
Parvovirus B19 – (Erythema infectiosum – Erythrovirus B19)	Slapped cheek syndrome	**Droplet**	Single en-suite room until the rash+/- arthralgia has developed	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs (Not required if the rash+/- arthralgia has developed)	No
Pneumocystis jirovecii	Pneumonia	**Droplet**	Single en-suite room in high risk settings e.g. ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
Pseudomonas aeruginosa	Pneumonia, bacteraemia, wound or surgical site infections, catheter-associated urinary tract infections, conjunctivitis in neonates	**Droplet**	Single en-suite room in high risk settings e.g. ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
Respiratory syncytial virus (RSV)[1]	Upper +/- lower respiratory tract infection	**Droplet**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	No
Rotavirus	Gastroenteritis	**Contact**	Single en-suite room	No requirement for RPE	No

Suspected or confirmed Pathogen	Disease	Mode of transmission	Optimal placement whilst patient is considered infectious and until resolution of symptoms	Respiratory protection (RPE) for healthcare workers whilst patient is considered infectious[3]	Notifiable under Public Health (Scotland) Act 2008[5]
Rubella virus[2]	German Measles	**Droplet**	Single en-suite room	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs	Yes
Serratia marcescens	Pneumonia, bacteraemia, urinary tract infections, wound infections	**Contact**	Single en-suite room in high risk settings e.g. ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
Staphylococcus aureus (Enterotoxigenic)	Gastroenteritis, scalded skin syndrome	**Contact**	Single en-suite room (not required if lesions can be covered)	No requirement for RPE	Yes
Stenotrophomonas maltophilia	Bacteraemia, respiratory infections, urinary tract and surgical-site infections	**Contact**	Single en-suite room in high risk settings e.g. ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
Streptococcus pyogenes (Group A Strep)	Respiratory infection	**Droplet**	Single en-suite room (until patient has been established on appropriate antimicrobial treatment[6])	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs until patient has been established on appropriate antimicrobial treatment[6]	No
	Bacteraemia, meningitis, wound infection or infection in other normally sterile site	**Contact**	Single en-suite room (until patient has been established on appropriate antimicrobial treatment[6])	No requirement for RPE	Yes
Streptococcus pneumoniae	Pneumonia	**Droplet**	Single en-suite room (until patient has been established on appropriate antimicrobial treatment[6])	Fluid resistant surgical facemask (FRSM) for routine care and FFP3 or Hood for AGPs until patient has been established on appropriate antimicrobial treatment[6]	Yes
	Bacteraemia, meningitis, wound infection or infection in other normally sterile site	**Contact**	Single en-suite room (until patient has been established on appropriate antimicrobial treatment[6])	No requirement for RPE	Yes (presence in the wound is not notifiable)

Suspected or confirmed Pathogen	Disease	Mode of transmission	Optimal placement whilst patient is considered infectious and until resolution of symptoms	Respiratory protection (RPE) for healthcare workers whilst patient is considered infectious[3]	Notifiable under Public Health (Scotland) Act 2008[5]
Varicella virus[2]	Chickenpox	**Airborne**	Isolation room/suite	FFP3 or Hood for routine care and AGPs	Yes
Shiga-toxin producing Escherichia coli (STEC)	Gastroenteritis, haemolytic uremic syndrome, thrombotic thrombocytopaenic purpura.	**Contact**	Single en-suite room	No requirement for RPE	Yes
Vancomycin-resistant Enterococci (VRE)	Bacteraemia, urinary tract, wound and surgical-site infections	**Contact**	Single en-suite room in high-risk areas e.g. ICU/PICU/NICU, oncology/haematology	No requirement for RPE	No
Viral Haemorrhagic Fever (VHF)[7]	See high consequence infectious disease.				

Footnote 1

In routine clinical practice healthcare workers do not commonly wear masks when dealing with patients presenting with the "common cold" or "influenza – like illness". However, in a patient with undiagnosed respiratory illness where coughing and sneezing are significant features, or in the context of known widespread respiratory virus activity in the community or a suspected or confirmed outbreak of a respiratory illness in a closed or semi-closed setting, the need for appropriate respiratory and facial protection to be worn should be considered.

Footnote 2

In relation to childhood illnesses and use of RPE, no vaccine offers 100% protection and a small proportion of individuals acquire/become infected despite vaccination or known IgG immunity (previous infection). Vaccination is still the best protection against many infectious diseases. If staff are uncertain of their immunisation status they should discuss this with their occupational health provider. It is recommended that vaccinated individuals wear RPE as detailed in this appendix to minimise any residual risk, and to promote consistency in practice across all staff groups.

Footnote 3

The ocular route of transmission for pathogens spread by the droplet/airborne route whilst plausible lacks scientific evidence. This lack of evidence includes having very little certainty about what the incremental benefit may be of using eye protection routinely when using a FRSM/FFP3 respirator. Eye protection is considered to be

necessary and worn if there is a risk of spraying or splashing of blood/body fluids from patient contact or procedure, and always when used with respirators during the performance of AGP, as per Appendix 16.

Aerosol Generating Procedures (AGPs) can produce droplets <5 microns in size which may cause infection if they are inhaled. These small droplets, containing infectious agents, can remain in the air, travel over a distance and still be infectious. AGPs should only be carried out when essential. Where possible, these procedures should be carried out in well-ventilated single rooms with the doors shut. Only those healthcare workers who are needed to undertake the procedure should be present.

Aerosol Generating Procedures (AGPs) are defined as:

- Tracheal intubation and extubation
- Manual ventilation
- Tracheotomy or tracheostomy procedures (insertion or removal)
- Bronchoscopy
- Dental procedures (using high speed devices such as ultrasonic scalers and high speed drills)
- Non-invasive ventilation (NIV); Bi-level Positive Airway Pressure Ventilation (BiPAP) and Continuous Positive Airway Pressure Ventilation (CPAP)
- High Frequency Oscillatory Ventilation (HFOV)
- Induction of sputum using nebulised saline
- Respiratory tract suctioning
- Upper ENT airway procedures that involve suctioning
- Upper gastro-intestinal endoscopy where there is open suctioning of the upper respiratory tract
- Surgery and post mortem procedures involving high speed devices*
- High flow nasal oxygen (HFNO)

*For COVID-19, the use of high speed devices in surgery/post-mortem procedures is considered an AGP only if it involves the respiratory tract or paranasal sinuses.

Footnote 4

Additional guidance should be followed for known/suspected cases of novel influenza viruses, including avian influenza, MERS CoV, COVID-19.

Footnote 5

Notifications may be made on clinical suspicion by a registered medical practitioner (“notifiable diseases”) or once the organism is confirmed by the director of the diagnostic laboratory (“notifiable organisms”), or where a registered medical practitioner has reasonable grounds to suspect that a patient whom the practitioner is attending has been exposed to a health risk state. “Health risk state” means a highly pathogenic infection or any contamination, poison or other hazard which is a significant risk to public health. Conditions may fall under more than one of these categories, and medical professionals and laboratories have a duty to be aware of their responsibilities under the Public Health etc. (Scotland) Act 2008.

Footnote 6

Appropriate antimicrobial treatment will include the choice of treatment, dose, frequency and number of days of treatment. It will vary by organism and should be determined by the clinical team and informed by local and national prescribing guidance where available.

Footnote 7

This includes any unknown/novel HCIDs in addition to the following list of known HCIDs: Viral haemorrhagic fevers (*Argentine haemorrhagic fever (Junin virus), Bolivian haemorrhagic fever (Machupo virus), Crimean Congo haemorrhagic fever (CCHF), Ebola virus fever, Lassa fever, Lujo virus disease, Marburg virus disease (MVD), Severe fever with thrombocytopaenia syndrome (SFTS)*), Andes virus infection (Hantavirus), Avian influenza A H7N9 and H5N1, Avian influenza A H5N6 and H7N7, Middle East respiratory syndrome (MERs), Monkeypox, Nipah virus infection, Pneumonic plague (Yersinia pestis), and Severe acute respiratory syndrome (SARs). For more detailed IPC guidance for Viral Haemorrhagic Fevers, see Viral Haemorrhagic Fevers (VHF) Infection Prevention and Control Precautions Summary for the Hospital Setting (Version 3.1).

Cabinet Secretary for Health and Wellbeing

RECOMMENDATIONS FROM THE STEERING GROUP REPORT ON SINGLE ROOM PROVISION

Purpose

1. To invite you to note the recommendations in the Scottish Government Steering Group Report on Single Room Provision in NHS Scotland hospitals (see **Annex A**) and to ask if you are content for us to issue a Chief Executive's Letter (CEL) to all NHS Boards advising them of the changes in policy and to invite Health Facilities Scotland (HFS) to review the current guidance.

Priority

2. **Immediate.** It would be helpful to have your response by **Friday 7 November**.

Background

3. Following a Peer Review of the European Union Health Property Network Report "Hospital Ward Configuration: Determinants Influencing Single Room Provision", a Steering Group was established in March 2006 to take forward the recommendation that further evidence in a Scottish context should be gathered. As set out in the Executive Summary of the report, this exercise was a significant undertaking, which involved commissioning reports and gathering evidence, and it has therefore taken until now to complete.

4. The Steering Group's recommendations are set out in pages 35 and 36 of the report attached at **Annex A**. I would summarise these as follows:

<u>New-build facilities</u>

- All new-build hospitals or other healthcare facilities which will provide in-patient accommodation there must be a presumption that all patients will be accommodated in single rooms, unless there are clinical reasons for multi-bedded rooms to be available.

- Those patient groups for which 100% single room provision is considered always appropriate will be agreed with the CMO (see final bullet point under the "Ongoing Work" heading).

<u>Refurbishment of healthcare facilities</u>

- For projects where the refurbishment of major healthcare facilities has been approved the Steering Group recognised that each building to be refurbished will present unique problems. However, the Steering Group concluded that in developing proposals for substantially refurbishing healthcare facilities NHS Boards must seek to provide the maximum number of single rooms consistent with the approach for new-build, e.g. 100%.

- In developing proposals for single room provision in refurbishments, recognising the constraints posed by existing buildings, the Steering Group decided that the overall level of single room provision must be 50% as an absolute minimum, with due regard to the clinical needs of specific patient groups.

Ongoing work

- The Group recognised that further work is required to support clinical decision making on the need for multi-bedded areas for specific patient groups, or clinical specialties where 100% single rooms would be regarded as always appropriate. A Delphi Consultation exercise with the clinical speciality leads designated by the CMO is currently underway, and the Steering Group will produce these supporting materials in the near future. We will provide separate advice on this issue in due course.

Single room policies elsewhere in the UK

5. You are asked to note that Northern Ireland and Wales have both recently adopted 100% single room policies for newbuild hospital, and lower provision for refurbishments (minimum 50% in NI, unspecified levels 'for negotiation' in Wales). England has no equivalent policy at present, but their current guidance sets out options for single room provision at levels between 50% and 100%.

Media coverage

6. Communications Health Colleagues advise that an announcement on the revised single room provision should be included as part of the event you are undertaking on the 11 November to announce the consultation on the HAI Inspectorate.

Recommendation

7. **To note the above and to ask if you are content for us to:**

- **issue a CEL Letter to NHS Boards setting out the revised level of single room provision described above;**

- **invite HFS to review the current guidance and to make the appropriate changes; and**

- **include an announcement on this as part of your launch event on 11 November**

Paul Martin
Chief Nursing Officer and Interim Director of Workforce
Ext [redacted]
30 October 2008

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
First Minister Minister for Public Health			X		X

DG/HD
Dr Harry Burns, CMO
John Connaghan
Derek Feeley
Pam Whittle
Kenneth Hogg
Carmel Sheriff
George McLachlan
David Hastie
Mike Baxter
Peter Christie
Colin Brown
Uriel Jamieson
Callum Percy
Linda Middleton
Gavin Reid
Jon Owens
Communications Health
Alison Shields
Marion MacKay
Noel Dolan, Special Adviser

Annex A

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Annex 7: Financial Impact Paper

Annex 8: Current Number of Single Rooms in Scottish Hospitals

Executive Summary

Following a Peer Review of the European Union Health Property Network Report entitled "Hospital Ward Configuration: Determinants Influencing Single Room Provision", a Steering Group was established in March 2006 to take forward the recommendation that further evidence in a Scottish context should be gathered. This Group's membership was drawn from those involved in the Peer Review event who were experts in their subject and who represented a broad range of professional disciplines, both from NHSScotland and Scottish Government Health Department (now Health Directorates).

This Steering Group had as its remit:

> To consider the evidence supporting the establishment of the future level of single room provision within new-build hospitals and in the refurbishment of major hospital facilities in Scotland.

The Group also considered the related issue of the appropriate space around each bed where these are not located in a single room and for the purpose of the report, a single room was defined as "a room with space for one patient which normally contains, at a minimum, a bed, locker, clinical wash-hand basin and also sanitary facilities comprising a toilet, shower and wash-hand basin". The Group did not consider the requirements for "specialised isolation rooms" with fully engineered ventilation.

Members of the Steering Group recognised that there was a need for information which was specific to Scotland and commissioned a number of reports/studies as follows:

- Literature review
- Public attitude survey
- Nurse staffing report
- Financial impact study

In addition to these reports, the Group also had the benefit of a survey undertaken at the Golden Jubilee National Hospital of patients who had experience of both single room and multi-occupancy room provision. In relation to the financial impact of an increased level of single room provision, the Group had the benefit of the outcome of a study undertaken in Northern Ireland of the financial impact of increasing single room provision from 50% to 100%.

Having identified and evaluated options appropriate in a Scottish context, the Steering Group recognised that not only is it necessary to strike a balance between service quality and the opportunity cost in an environment which is influenced not only by clinical and "building" interest but also by the issue of patient safety and public expectation. It was also recognised as crucial that any conclusions and recommendations made regarding single room provision in future new-build and refurbished in-patient accommodation should be future-proofed and able to accommodate the changing standards expected by patients, given the lifecycle of such facilities which often extend beyond 50 years.

The Steering Group's recommendation was that for all new-build hospitals or other healthcare facilities which will provide in-patient accommodation there must be a

presumption that all patients will be accommodated in single rooms, unless a lower percentage provision for specific patient groups has been justified to and approved by the Scottish Government Health Directorate (SGHD) as part of the Business Case approval process. Those patient groups for which 100% single room provision is considered mandatory will be agreed with the SGHD's Chief Medical Officer.

For those projects which identify a refurbishment as the appropriate option to be developed, the Steering Group recognises that it is extremely difficult for it to establish a definitive proposal as each of the buildings to be refurbished will present unique problems. However, the Steering Group's recommendation was that in developing proposals for refurbishing healthcare facilities which include in-patient accommodation, Health Boards must seek to provide the maximum number of single rooms consistent with the approach recommended for new build healthcare facilities and that the overall level of single room provision within any refurbished accommodation must be 50% as an absolute minimum.

For bed spacing, the Group considered that the current advice remains appropriate.

The Group also recognised a need for further work to be undertaken and has undertaken the first stage of a Delphi Consultation exercise with the clinical speciality leads designated by the SGHD's Chief Medical Officer. This exercise, when completed, should identify those specific patient groups for whom 100% single room provision should be mandatory.

The Group also recognised that it would be helpful to Boards in developing projects for a Risk Matrix Tool to be developed. This could be based on the SCART (Statutory Compliance Assessment Risk Tool) recently developed by Health Facilities Scotland for use by all NHS Health Boards.

INTRODUCTION

NHSScotland is currently engaged in the largest capital development programme in its history. Its property and other physical assets must be fit for purpose and must, as far as possible, be future-proofed to meet the changing technological demands to which it will be subject and to address the changing public expectations of not only the current generation but also of generations to come. Already a number of major hospital facilities have been replaced but many significant projects are still in development, including the new South Glasgow Hospitals which will provide over 1100 beds in the new adult's hospital, with a further 250 in the new children's hospital. In addition to the replacement of major hospital facilities, there is a continuing programme of refurbishment of the existing NHSScotland hospital estate. The new infrastructure which will emerge from this programme of activity will form the cornerstone of our hospital care system well into the 21st Century.

To inform capital development plans, we need to establish parameters for the care environment which these facilities must offer for the patients, staff and visitors who will use them. A key but by no means the only aspect of this care environment which we need to address is the accommodation profile in terms of the proportion of single rooms to be provided in our new-build hospitals or in major facilities which are being refurbished.

The purpose of this paper is to consider the available evidence which supports a higher level of single room provision than currently provided by the NHSScotland estate and to make a recommendation on the level of single room provision to which all new-build hospital accommodation should be built and which all refurbishments of major hospital facilities must strive to provide.

BACKGROUND

The provision of single rooms and the related issue of adequate space around beds in hospitals have been topics of considerable discussion in recent years and these related topics are seen as important factors in achieving a number of key aims in the care and treatment of patients including:

- Preventing and controlling healthcare associated infections (HAIs);
- Enhancing patients' privacy, dignity and confidentiality; and
- Providing adequate space around the bed for clinicians and carers , arranged in a functionally suitable way, to enable them to undertake their work efficiently and safely, particularly when using equipment necessary for patient care.

The publication in November 2004 of a report commissioned by NHS Estates in England entitled "*Hospital Wards Configuration: Determinants Influencing Single Room Provision"* gave added profile of this topic.

Given the significant capital investment programme underway in Scotland and the lack of a clear policy on the level of single room accommodation deemed appropriate when planning new-build and/or the refurbishment of existing major facilities in Scotland, it was considered appropriate that this report should be "peer reviewed" as a first step in developing thinking on how we in Scotland should address the issue. This Peer Review event was held in November/December 2005 and was sponsored and facilitated by the Scottish Executive and NHS Education for Scotland.

The Peer Review Group comprised experts from across Scotland representing a broad range of professional disciplines. It also involved the authors of the EU Health Property Network (EuHPN) Report and the most influential of the expert contributors to that report. The presence of these European experts added considerably to the outcomes generated by the Peer Review event.

This peer review had 4 clear aims which were to:

- undertake a critical review of the EuHPN report in the Scottish context;
- identify gaps in that work;
- recommend additional work; and
- consider resources required to take this process forward.

This event was the first in a 3-stage process which was be followed by the formulation of a policy recommendation to the Health Minister and if it was deemed appropriate for a policy to be introduced, the development of guidance to support the emergent policy.

The 2004 EuHPN Report which was the focus of the Peer Review included among its recommendations that:

- guidelines should promote a good practice range of between 50% and 100% single rooms – [and that] there is a strong "confidence" base for this judgement.

- design decisions on HAI risk and other single room determinants should relate to the profile of the hospital and its local catchment population – not on the evidence of currently observed rates of infection or standards but on a predictive model that translates population need and infection risk into a service language that is useful for planning and design.

These and the other general principles contained in the EuHPN Report together with the recommendations of the Property Environment Forum's report on 'Space Around the Bed' were accepted as valid conclusions by the Scottish experts at the Peer Review event. Those participating also recognised that specific evidence in a Scottish context was essential across a range of issues but particularly on patient choices and preferences of accommodation provided in hospitals, on the impact of single rooms on staffing ratios and ways of working and on the economic implications of a move to a higher level of single room provision. The Peer Review Group concluded that consideration be given to establishing a small Steering Group to take forward the recommendation that further evidence in a Scottish context should be gathered which in turn may lead to the Steering Group developing a policy recommendation.

This approach was endorsed in the Next Steps outlined in the Peer Review Report – see Annex 1 for a copy of the Peer Review Report.

SINGLE ROOM STEERING GROUP

Based on the Next Steps identified in the Peer Review report the then Health Department established a Steering Group with members drawn from those who participated at Peer Review event with the Health Department providing the Chair and secretariat support to the Group. Members of the Steering Group were selected to ensure that there was represented as wide a range of professional interests as possible including Directors of Nursing, Directors of Finance, the Scottish Microbiology Forum, the Chief Medical Officer, Health Analytical Services and Property and Capital Planning interests both from the Department and NHSScotland.

This Group had as its remit:

> To consider the evidence supporting the establishment of the future level of single room provision within new-build hospital facilities and in the refurbishment of major hospital facilities in Scotland.

In addition the Group undertook to consider the related issue of the appropriate space around each bed where these are not located in a single room – this further advice to relate only when planning any new in-patient accommodation or a refurbishment of an existing major healthcare facility.

For the purpose of the Group's work a single room was defined as:

> A room with space for one patient which normally contains as a minimum a bed, locker, clinical wash-hand basin and also a sanitary facility comprising a toilet, shower and wash-hand basin.

The Group has not considered the requirements for 'specialised isolation rooms', (with fully engineered ventilation in monitored rooms).

The Steering Group Approach

The Peer Review Event was structured to consider the impact of single room provision within healthcare facilities across 4 principal areas of concern. These were:

- the control of infection;
- the patient environment;
- operational issues, principally the impact on nurse staffing ratios; and
- financial issues around increased costs and value for money.

It was agreed that this was an appropriate approach for the Steering Group to adopt as it would focus the energy of the Group on those areas which are accepted as being of greatest concern and which were likely to have the most influence in shaping any policy outcome.

Control of Infection

Members of the Group accepted that from a HAI perspective there was a generally held view that a high level of single room provision assists in managing the spread of infection but that there was very little robust reliable evidence supporting the direct link between the level of single room provision and the incidence of HAIs. To address this the Group agreed to undertake a high level literature search to augment the literary evidence produced as part of the EuHPN Report.

The Patient Environment

To inform its thinking on this topic the Group concluded that there would be a significant benefit if the preferences of the Scottish population on the type of accommodation in hospital could be identified. It was therefore agreed that a public attitude survey should be commissioned as part of the work of the group.

Operational Issues

The level of nurse staffing was recognised as being a major area of concern and to establish the impact of any proposed increase in the level of single room provision on nurse staffing ratios the Group agreed to commission a report which would be based on input from the nursing community across NHSScotland, including a significant input from Nurse Directors.

Financial Issues

The impact of high levels of single room provision on both the initial capital cost of providing new or refurbishing an existing healthcare facility and the revenue costs in maintaining these facilities over the building's lifetime were identified as other major areas of concern. Health Facilities Scotland were asked to consider a report produced in 2004 by Atkins Consulting Ltd on behalf of NHSScotland (the Atkins Report) on the impact on these capital and revenue costs if bed spacing were to be significantly increased from those recommended in current guidance and also undertook a series of discussions among Facilities leads from Health Boards on the impact on capital and revenue costs of an increased level of single room provision. .

The Baseline Position

It was felt important to establish a baseline position on the level of single room provision across the existing NHSScotland estate although it was also recognised that there could be no "quick fix" solution to significantly changing this position. If, as the evidence from other healthcare systems suggests, the trend is towards significantly higher proportions of single room accommodation there should be an ongoing commitment on NHSScotland's part to raise the overall level of single room provision across the estate and not simply to pursue an approach which is only applicable in new-build projects or where major healthcare facilities are being refurbished. In other words, over time the NHS in Scotland should seek progressively to raise the level of single room provision across the entire estate.

The outcome from this Steering Group would be a report to be submitted to the Chief Nursing Officer to inform a decision on the need for a national policy regarding the level

of single room provision across NHSScotland and what further actions, if any, are required before a final decision can be taken.

Membership of the Single Room Steering Group is shown at Annex 2

The Steering Group recognised early in its deliberations that to collate the evidence necessary to produce a robust report would take some time and in order to provide a clear sense of direction to those involved in planning new-build projects or the refurbishment of major healthcare facilities members agreed that it was appropriate to issue an Interim Statement to Health Boards. This Interim Statement largely reflected the outcome of the Peer Review event where the general principles EuHPN Report were endorsed. This statement was issued to Board Chief Executives on 21 February 2007 and advised those involved in planning for the construction of new or the refurbishment of major existing healthcare facilities that it was appropriate to provide an overall single occupancy room level of between 50% and 100%. The appropriate level within that range was a matter for each individual NHSScotland Board to consider based on 4 broad criteria. These criteria are:

- **Science-based** decisions relating to the clinical and nursing care of patients and overall hygiene standards;
- **Value-based** judgements about the nature of personal services and responsiveness to the local community and generational cultures;
- **Operational needs**, for example managing volatility and demand or changing clinical needs and priorities; and
- The need to balance these against **economic considerations**.

The advice contained in the Interim Statement was to assist Boards to make decisions based on sound clinical judgements, the profile of the hospital and its local catchment population. The importance of the conditions which would be treated, the models of care for the delivery of treatment and the changing aspirations of patients over future years were highlighted as the key decision-making criteria rather than basing decisions on past trends and social patterns.

The Interim Statement also gave guidance on the issue of appropriate bed spacing which was based principally on the ergonomic criteria primarily the space required for patient handling and other activities which take place in the immediate vicinity of the bed. The minimum bed space recommended was that it should not be less than 3.6m x 3.7m.

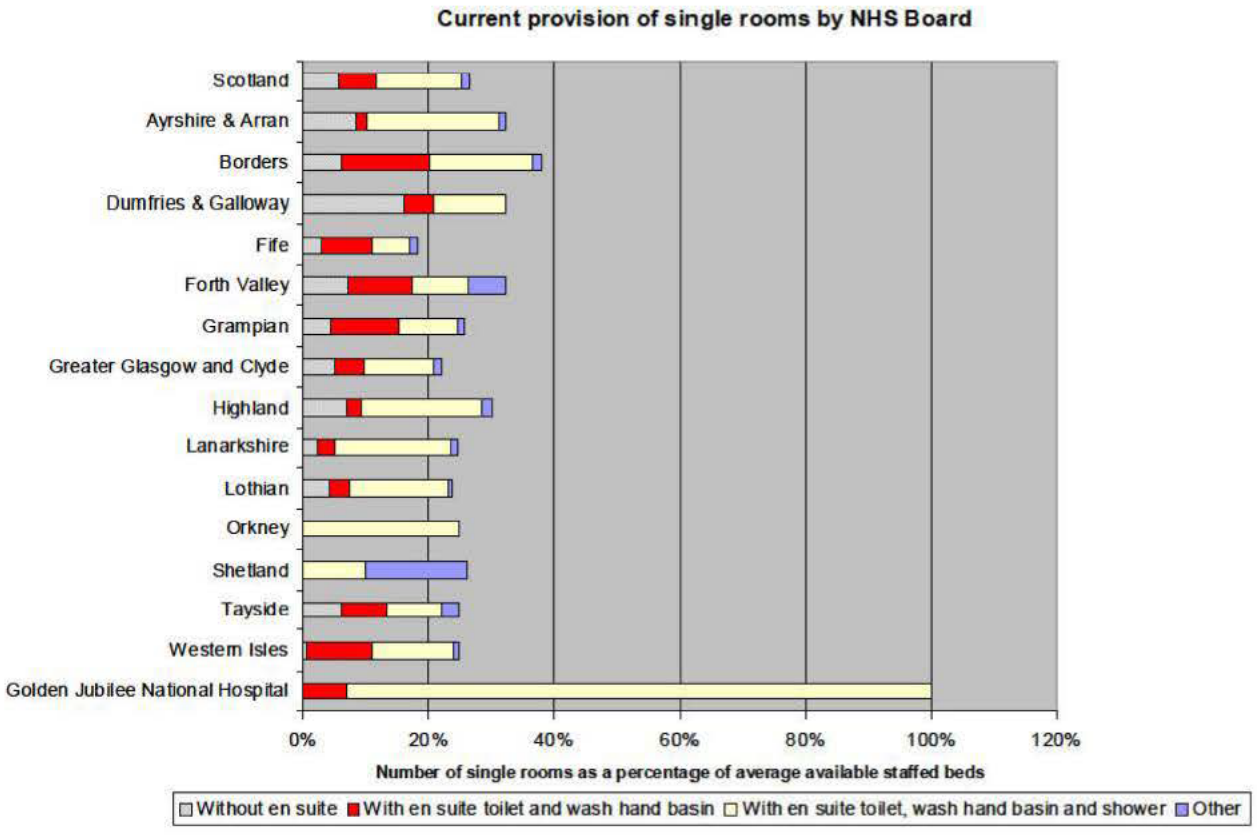
The full text of the Interim Statement is included as Annex 3.

THE EVIDENCE BASE FOR CHANGE

Census of Current Provision of Single Room Accommodation

This census was undertaken with the assistance of ISD based on a questionnaire issued to Health Boards. It is not intended to be a definitive statement on the level of single room accommodation within the NHSScotland estate but to give an indication of the level of such provision.

Figure 1 below shows the level of provision of single room accommodation by NHSScotland Board at the time of the survey in November/December 2006.



The key points which emerged from this census are:

- that single room provision was clustered between 22%-30%;
- that 50% of current single rooms have a WC, WHB and shower;
- that 22% of single rooms currently have no en-suite facilities
- that of all staffed beds:

- 10% are allocated to single rooms in acute medicine and surgery
- 9% are allocated to single rooms in mental health
- 4% are allocated to single rooms in geriatric medicine.

Recognising that this census represented a snapshot in time largely influenced by the historic, incremental approach to hospital provision in Scotland the Group wished a perspective on the current trends as revealed from a cross-section of “recent” Scottish projects. These were projects which had either recently been completed or were well advanced in the project planning stage. Thirteen projects were analysed which showed a wide range of single room provision from 20% to 98%. Within the acute sector the range was much narrower being 23% to 52%. The outcome of this exercise was to show a distinct trend towards a higher proportion of single rooms in these projects which reflected the current trend across all healthcare systems.

Since that census was conducted there are examples of single room provision being planned at significantly higher percentages than we have seen before. In Scotland. these new facilities include the proposal to complete the new South Glasgow Hospitals project, where 1109 beds will be developed in the new adult hospital and which at Outline Business Case stage were planned to be accommodated within single rooms with en-suite facilities. The children’s hospital which is also being developed on the Southern General Hospital Campus has a planned single room provision of 57%.

Literature Review

Much of the focus of the Group’s early discussions centred around the control of infection, where the view generally held was that a high percentage of single room provision would help manage Healthcare Associated Infections (HAIs). It was recognised that the scientific evidence base supporting single room provision and the incidence of HAI is not robust. The Group concluded that it would be appropriate as an initial task to undertake a high level review of the literature which would examine any additional evidence not included in EuHPN report. This work was taken forward by two Infection Control Nurses from NHS Scotland organisation on behalf of the Group. This high level literature review not only considered the literature around the control of infection but also

reviewed the literature around healthcare associated infections, patient environment, the impact on staffing ratios and financial impact.

This element of the steering groups work concluded that the review undertaken by Dowdeswell *et al* (2004) provided the most comprehensive overview of the available literature at that time and supported the EuHPN Report conclusion that there is insufficient available evidence to determine a scientifically based estimate of the optimum ratio of single room provision.

This literature review also highlighted some significant gaps in previous papers, particularly the systematic failure to provide a definition for a single room. This is perceived as an important factor as it would appear that patients' experiences may differ, depending on the style and facilities provided in a single room.

It was evident from the literature review that there remains a lack of robust scientific evidence on the benefits, particularly from an infection control perspective, of single room provision and there is also a lack of evidence around the actual level of single room provision which should be provided. The review also highlighted that there is an increased public expectation that our healthcare facilities should provide single room accommodation but recognised that existing evidence was inconclusive and that therefore there is a need for ongoing research on the impact upon treatment, care and recovery in single and multi-bed rooms. The view of the Group is that it is intuitively convincing that the greater use of single rooms the better are the chances of preventing and controlling infection.

The full text of the Literature Review is contained at Annex 4.

Nurse Staffing Report

This Report was based on a survey of the senior nurses and midwives from all NHSScotland Health Boards carried out in the period July-September 2006 with a further opportunity afforded to all Nurse Directors to comment and contribute through structured discussion in the early part of 2007.

It was evident from the response from senior nurses and midwives that there was a considerable level of awareness of proposals to increase the provision of single rooms in new healthcare facilities. The nursing community considered as part of the study whether there was a need to preserve some multi-occupancy rooms in some patient care areas – where patients are more dependent on nursing care, where patient mobility is reduced or where greater levels of supervision are required. It was recognised that such patients can feel insecure and isolated and are often reassured by nurse visibility. The report concluded that this could be achieved by adequate staffing levels and appropriate design and the consensus within the Report was that 100% single room accommodation should be the starting point with risk assessment processes used to identify why this level of provision shouldn't apply for particular patient groups.

The Report also concluded that there was a consensus amongst Nurse Directors that single room accommodation in itself should not increase the number of nurses required to care for patients, although recognising that where appropriate staffing levels are already compromised, the position could be exacerbated by a move to 100% single room accommodation. This Report made a number of recommendations including:

- development of assessment processes to identify why patients should not be cared for in single rooms;
- a review of housekeeping and care assistant roles which would support the domestic management of single rooms;
- requirement for adequate social areas and planned activities spaces to be built into care plans to encourage mobility out of single rooms and reduce loneliness;
- a requirement for good planning of storage space in single rooms and within ward areas;
- good planning and investment in technology to support the care of patients in single rooms;
- adequately designed and properly tested nurse staffing levels; and
- more evidence-based UK research into the benefits and risks of single room accommodation.

The full text of the Nurse Staffing Report is contained at Annex 5

Attitude Surveys

Golden Jubilee National Hospital Survey

A survey of patients who had experienced a single room environment was undertaken in 2006 at the Golden jubilee National Hospital. These were patients from across Scotland whose ages were in the 60 – 80 years range and who were undergoing surgery for primarily cardiac and orthopaedic conditions. Returns from 57 patients were analysed and of the responses analysed 81% had experience of both multi-bed and single room accommodation in hospitals.

The outcome of this survey was that 93% of the patients who responded to the survey expressed a preference to stay in single room accommodation any future overnight stay in hospital.

Further detail on this survey is contained in the Nurse Staffing Report in Annex 5

Public Attitude Survey

One of the conclusions of the Peer Review Report was to highlight the need to understand the social and cultural attitudes of potential users of the Scottish healthcare system before any general conclusions could be made about an appropriate level of single room provision. The Steering Group recognised the lack of information about the needs and wants of the Scottish population in relation to this issue and therefore commissioned a public attitude survey of a representative sample of Scotland's population.

The specific research objectives were:

- to assess people's preference to be accommodated in single versus multiple occupancy hospital accommodation;
- to explore people's opinions on which groups should/should not be accommodated in single occupancy hospital accommodation;
- to examine the perceived benefits and risks associated with accommodating people in single or multiple occupancy accommodation; and

- to examine the degree to which people are aware of the nature of hospital accommodation currently provided by NHS Scotland.

A representative sample of 990 adults aged 16 and over was interviewed in-home over 43 sampling points throughout Scotland and over the period 23 to the 28 November 2006. The views expressed in this report are the views of the research organisation and do not necessarily represent those of the Department or Scottish Ministers. (now Health Directorate or Scottish Ministers).

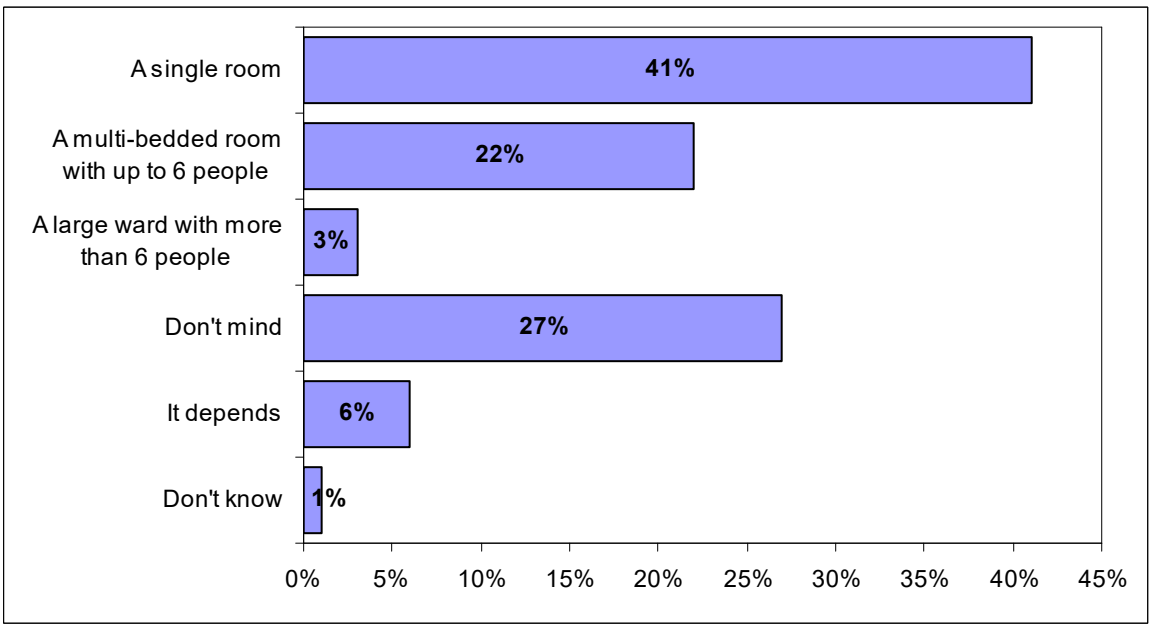
The principal conclusions of the survey team were:

- The majority of respondents had some experience of hospitals in the last five years – either as in-patients (37%), visiting friends or relatives (76%), or in the course of their work (8%). In total, almost a quarter (24%) had personally stayed in a smaller multi bed ward (up to six people) as an *in-patient*, 13% in a single room, and 7% in a large ward (7+ people). Regarding *visiting* in-patients, 50% had visited friends or relatives in a smaller multi-bed ward, 27% in a single room, and 17% in a larger multi-bed ward. Linked to this, the majority of the sample (60%) felt that the smaller multi-bed wards were most common, followed by larger multi-bed wards (32%) and single rooms (5%).

- If admitted as an in-patient, the most frequently preferred type of accommodation would be a single room (41%), followed by people saying that they didn't mind (27%). Smaller multi-bed wards (22%) and larger multi-bed wards (3%) were considered less desirable. Looking at the sample based on their preferences, patterns of response by those who 'don't mind' and those who prefer smaller multi-bedded wards were similar throughout.

Figure 2: Type of accommodation preferred if admitted to hospital

Base: All respondents (990)



- Previous experience of types of hospital accommodation makes little difference to future preferences, although those who have stayed in or visited a smaller multi-bed ward are slightly more likely to prefer to stay in one should they be an in-patient in the future. Preference for single room accommodation increased with social grade (30% of those in the DE group increasing to 58% of ABs), and the younger age groups were also more likely to prefer this type of accommodation. (49% of those aged 16-34 falling to 28% of those aged 65 and over).

- The perceived advantages of staying in a single room were more privacy (75%) and that it would be less noisy (34%) – both more likely to be cited by those who would prefer to stay in a single room. The major disadvantage given was that you would feel isolated or lack company (69%) – in particular from those who would prefer to stay in a multi-bed ward. In conjunction with this, the major advantage of a multi-bed ward given was that you feel less isolated and have more company (78%), and the stated disadvantages were that you have less privacy (56%) and it is more noisy (48%). Those who preferred single rooms were more likely to see disadvantages of multi-bed rooms, and those who preferred multi-bed rooms were more likely to see disadvantages of single rooms.

- The main groups that the sample felt should stay in a single room were those who are seriously ill (57%), those who are dying (27%), and people who have an infectious disease (24%). Only 11% felt that everyone should stay in a single room. The main groups that the sample felt should stay in a multi-bed room were people who were in hospital for a routine procedure (27%) and everyone (26%).

- Despite the fact that the largest proportion of respondents would prefer to stay in single room accommodation, there was an acceptance that resources would not allow everybody to do so. There was little agreement overall about what sorts of groups should stay in single versus multiple accommodation, suggesting that people do not have very strong feelings on this topic. Although they tend to feel that the judgement should be made based on severity of illness, this could reflect the pattern of allocation they have personally observed in the NHS today.

The full text of the Public Attitude Survey is contained at Annex 6

Financial Impact

The financial impact of increasing the provision of single room accommodation can be split into 2 broad categories, namely capital and revenue costs.

Capital Costs

A study was undertaken for NHSScotland prior to the Peer Review Event on the additional capital and revenue costs which would be incurred by increasing the space around hospital beds. This study did not involve consideration of the impact of a higher provision of single rooms but the impact was deemed to be a reasonable proxy as far as the impact of capital costs is concerned, as these are directly attributable to the footprint of the building. It was recognised that the design of ward accommodation would have a significant impact on this and much activity is taking place across the UK and Europe on different models of ward design incorporating single rooms with en-suite facilities.

This paper does not consider these in detail; it is important to recognise however that an increased focus on appropriate design can have a significant impact on the subsequent capital (and revenue) costs.

The study based on increased bed spacing identified capital cost increases which at a hospital level, range from approximately 0.5% to 3% for large hospitals with a cost increase of approximately 1% to 5.5% for small hospitals.

The Group also had the benefit of the outcomes from a Northern Ireland study which supported the general conclusions of the Atkins Report. The Northern Ireland study concluded that the additional capital cost of increasing the ratio of single rooms from 50% provision (the then current policy position in Northern Ireland) to 100% would be between 2% and 4% dependent on the size of the hospital in terms of bed numbers. The higher percentage increase is for the larger hospital.

Although there is inevitably an increase in the capital cost of a hospital associated with an increased level of single room provision it is important to bear in mind that the investment must be measured against the added health benefits which result. As pointed out by the European Health Property Network “lifecycle costing should involve an assessment of a building’s contribution to healthcare over its lifetime by balancing questions of short-term affordability with future needs for adaptability and longer-term functional effectiveness.”

Revenue Costs

The evidence from the Atkins Report on the impact on revenue costs based on increased bed spacing is recognised as being less directly relevant when considering the revenue cost impact from a higher level of single room provision. What is considered crucial is the additional floor area and the services contained in and supplying the additional en-suite facilities that will need to be maintained and cleaned. It is likely, therefore that this report has understated the increase in revenue costs which can be anticipated from a higher level of single room provision..

However it is recognised in all studies into additional revenue costs that as a minimum there will be an increase proportionate to the increased floor area in the ongoing cost of heat, light, power, cleaning, maintenance etc..

The Atkins Report based on increased bed spacing identified the increased revenue costs to be around 0.5% to 1.5%. However, the Group recognises that this assessment is likely to have understated the full impact from additional single room accommodation on, in particular, facilities management/capital charge costs.

As with capital costs the Group were able to draw on the outcomes of studies undertaken in Northern Ireland which suggested that the increased revenue costs associated with moving from a position of 50% provision of single rooms to 100% provision would be around 2% to 2.75% dependent on the number of beds with the greater increases reflecting larger hospitals in terms of bed numbers.

Health Facilities Scotland considered the issues raised by increasing the provision of single rooms. This exercise involved HFS's major stakeholders and a significant number of issues were raised which impact on costs including:

- Individual room controls would add marginally to the cost but may mean better environmental conditions for the patient

- Sanitary facilities will be more numerous increasing both installation and maintenance costs
- With proper design the patient environment is likely to be enhanced with better natural light, views, lower ambient noise levels and some degree of individual control of room conditions;
- Potential increase of general utility costs as a result of increased maintenance lighting, ventilation and facilities .

The paper noted that any additional costs arising from areas of concern such as those detailed above can be viewed as marginal. This paper also looked at examples published by the Department of Health which identify the cost of additional space, cleaning and nursing could range from 0.5% to 1.5% of a typical revenue budget.

The overall view of Health Facilities Scotland was that in developing a new healthcare facility, the percentage of single rooms chosen could have less impact on construction and maintenance costs than other decisions routinely made in the design and planning process. That Group also believed there were grounds for optimism that individual control of environmental conditions would bring a significant improvement in patient satisfaction.

Having considered all relevant information (including the Atkins report, the Northern Ireland study, the examples produced by the Department Of Health, the assessment carried out by Health Facilities Scotland and the high level review of clinical staffing implications carried out in conjunction with Directors of Nursing from across NHS Scotland), the Group has concluded that the potential revenue impact from increased single room provision/bed spacing, could be up to 2.5% of overall running costs. This assessment assumes that any clinical staffing implications will be off-set by savings from reductions in patient transfers, reduced ward closures and better use of patient accommodation.

For refurbishment options where accommodation is having to be extended due to physical space constraints/maintain bed capacity, the Group recognises that the revenue implications are likely to be considerably higher than the overall average of 2.5% of

hospital running costs. The NHS Body concerned will need to determine the extent of the revenue implications as part of the business case justification on how best to address local requirements/needs. In reaching a decision in each particular project the dimensions of existing multi-bed areas will be significant as it may not be possible to conveniently alter the space to take additional en suite facilities and provide the necessary space recommended around the bed. Where the number of beds for a given patient group cannot be accommodated within the physical space available and it is appropriate for that patient group to be accommodated in single rooms it may mean the use of additional space and this could have a significant financial impact.

The Group also recognised that other benefits may be realised. Experience from elsewhere in Europe, America and Canada, tends to support the case that increased provision of single room accommodation will enable increased patient throughput as a result of improved bed utilisation, reduced length of stay and improved infection control. An enhanced level of single room could enable patient throughput to increase by a level greater than the increase in running costs thereby offering the possibility of improved overall hospital performance **.**

The full text of the Health Facilities Scotland paper is contained at Annex 7

THE CURRENT POLICY POSITION IN ENGLAND, WALES AND NORTHERN IRELAND

In order to put this paper into context, the current policy position in each of the other UK healthcare system is as noted below.

England

The Department of Health in England has not yet finalised its policy position on the appropriate level of single room provision and relies on Health Building Note 4 which was issued to Trusts in England and Wales in 2006. This Health Building Note is entitled "In-patient accommodation; options for choice" and offers the choice together of providing single room accommodation at 50%, 75% (80% in certain work configurations) and 100% models. This Building Note describes the advantages and disadvantages of single rooms and allows Trusts to select options which best meet their local priorities.

Wales

The Welsh Assembly Government in 2007 introduced a policy that all new-build hospital projects would be designed on the basis of 100% single room provision. When the project is the refurbishment of a major healthcare facility the target is to provide 80% of the accommodation in single rooms with a minimum of 50% provision.

Northern Ireland

In March 2008, the Department of Health, Social Services and Public Safety introduced new standards regarding the provision of single bedrooms in acute and local hospitals.

The new standards require all new build general ward accommodation to be planned on the basis of 100% single rooms (separate standards are applicable to specialities such as critical care and maternity). Where special local circumstances with regard to new build ward accommodation apply, for example due to clinical or operational issues which require the provision of some element of multi-bed ward accommodation, Trusts should

provide justification for and seek approval to the deviation from the provision of 100% single rooms.

With regard to major refurbishments, the new standards recognise that there may be instances where the physical limitations on an existing building would render the achievement of 100% single rooms impossible, or only possible at disproportionate cost. In these circumstances, Trusts are advised to maximise the number of single rooms which can be provided and to provide a justification for any deviation from the provision of 100% provision.

General Trends in Recent UK Projects

The above policy positions give a relatively clear sense of the general direction of travel across the UK, which has been underpinned by a number of projects which are currently planned or underway where 100% single room provision is being planned. These include:

Gwent Healthcare NHS Trust

Currently developing 2 local General Hospitals in Caerphilly and Blaenau Gwent with 270 and 110 beds respectively. Both these facilities will be developed with 100% single rooms.

Pembury Hospital

Maidstone and Tunbridge Wells NHS Trust have commissioned the building of a 512-bed £300m hospital in Pembury which is the first hospital in England to comprise 100% single rooms.

The new hospital will provide planned and emergency surgery, orthopaedics, a woman and children's zone, day case theatres, outpatient services and a mental health unit. A significant emphasis has been placed on infection control with 100% of the rooms being single with en-suite facilities and clinical processes designed around the patient.

THE STEERING GROUP'S PERSPECTIVE

Having considered the various reports on the evidence supporting the provision of increased levels of single room provision within new-build hospital facilities and on the

refurbishment of major hospital facilities in Scotland members acknowledged that there is a limited number of options. These options are detailed in the next Section but during discussions members also agreed that the question of the appropriate level of single room provision is a complex matter, that there could be different levels appropriate for different patient groups and that the whole design philosophy for each project must be considered in reaching a decision on single room provision. Equally the profile of those patients who would be treated in any new facility must be fully understood through appropriate engagement processes and there must be full engagement with clinicians on the public attitude survey, the "experienced" patient survey and the nurse staffing report.

It was agreed that the broad views of clinicians could be obtained by undertaking a Delphi Expert Consultation exercise. This approach involves identifying experts and obtaining their views, usually anonymously but in this instance it has been agreed that the views of the Chief Medical Officer's clinical speciality advisers are obtained. Each Adviser will initially be asked a single question, namely;

"All (e.g. neurology) patients should be accommodated in single rooms"

Once this initial round has been completed the results will be collated and in a second questionnaire these clinical speciality advisers will be asked to consider the full range of answers in order to gain consensus among them on the likelihood and impact of higher levels of single room provision across patient groups as a whole.

This exercise should be completed by the end of 2008 and will add considerably to the confidence parameters of the Group's final recommendation.

The Group noted that there were major differences in the findings in the surveys between that undertaken of a general cross section of the Scottish public and the survey carried out on patients with first-hand experience of a staying in single room accommodation in hospital. The difference is likely to reflect that those patients who have stayed in single room accommodation have had a good experience of this type of accommodation in a modern, highly specified hospital built with specific patient groups in mind. The Group also recognised that these were likely to have been planned admissions and not emergencies. Those questioned as part of the public attitude survey who had been in

hospital whether in single rooms or multi-bedded wards are likely to have experienced quite different hospital environments and it is this which is likely to have resulted in their views being significantly different from the “experienced patient” survey group.

The Group also noted and agreed with the conclusion reached by the Department of Health, Social Services and Public Safety in Northern Ireland that when the refurbishment of a major healthcare facility is being considered there may be instances where the physical limitations of an existing building or part thereof renders the achievement of 100% single rooms impossible or only possible at disproportionate cost. Such circumstances, where the reduction in bed numbers imposed by the physical limitations of the existing building cannot accommodate the level of single room provision deemed necessary on clinical grounds, may have significant financial impacts and must be considered carefully in the planning for and justification of the preferred option.

OPTIONS FOR FUTURE HEALTHCARE PROJECTS

Having considered the various reports which have been provided, and bearing in mind that the views of clinicians are currently being obtained, the Steering Group identified the following 3 options for new-build healthcare premises:

1. Status quo – as per Interim Statement.

   That it is appropriate to provide an overall single occupancy room level of between 50% and 100%. with the appropriate level within that range a matter for each individual NHSScotland Board to consider based on the 4 broad criteria detailed in the statement.

2 (a) Presumption that all in-patient accommodation will be provided in single rooms with any exceptions to be justified to and have the approval of Scottish Government Health Directorates.

2 (b) Requirement that all in-patient accommodation for specifically identified patient groups must be provided in single rooms with other patient groups to be accommodated in single rooms unless a lower percentage provision has been justified to and approved by Scottish Government Health Directorates.

The distinction between Options 2(a) and 2(b) above is essentially that in option 2(a) there is a default position of 100% provision of single rooms for all in-patient accommodation unless a case is specifically proposed and accepted by Scottish Government Health Directorates for a lower provision whereas option 2(b) will require 100% single room provision for those patient groups/medical and surgical specialities where there is a general consensus among the Chief Medical Officer's clinical speciality advisers. For these groups 100% provision will be mandatory whereas there will be flexibility to justify lower levels of provision for other patient group based on a risk assessment approach.

It must be appreciated that these options, 2(a) and 2(b), must reflect appropriate consideration of issues such as loneliness, lack of human contact etc. and demonstrate that such issues are appropriately ameliorated by the design of the in-patient accommodation.

As stated above a Delphi Expert Consultation is now underway with the Chief Medical Officer's assistance to identify those patient group/medical and surgical specialities

where 100% provision is deemed essential and those where a degree of discretion could be exercised by Health Boards when progressing individual projects.

For the refurbishment of major healthcare facilities the same options as apply to new new-build facilities are deemed appropriate although the Group supports the position that the cost of 100% provision must be weighed against the possibility that it could incur a disproportionate cost dependent on the physical limitations of the building under consideration. Also when considering the refurbishment of part of a major healthcare facility Boards must fully consider the whole life profile of the building involved including those parts not being refurbished at that time but which will require refurbishment at a future date in order that appropriate strategic decisions are made.

CONSIDERATIONS

The Steering Group are conscious that in taking a decision on an appropriate provision of single room accommodation, it is necessary to strike a balance between service quality and the opportunity cost in an environment which is influenced, not only by clinical and “building” interests but also by issues of patient safety and public expectation.

Given the significant capital investment programme which continues to be implemented, it is vital that all decisions made regarding future in-patient accommodation recognise that new facilities must be future-proofed and be able to accommodate the changing standards expected by patients; changing standards already evident in hospital care provision. The importance of these decisions is critical given that hospitals are designed and built with a lifecycle often greater than 50 years.

In summary, a recommendation to move to 100% single room for the majority of patient groups has the following clear advantages:

- It will support measures taken to reduce HAI through caring for the largest possible number of patients in single room accommodation;
- It will enable us to take full advantage of the opportunity to future-proof our estate at a time of continued significant capital investment;
- Implementation should require no significant additional staffing levels to deliver improved patient outcomes which we seek;
- It will entail marginal capital and revenue consequences which could be offset by opportunities for improved patient management, e.g. better bed management, less patient transfers, an opportunity for increased treatment at patient's bedside etc.;
- It will ensure better patient dignity/privacy;
- It will significantly reduce noise disturbance from staff activities or other patients, especially at night; and
- It will facilitate appropriate family involvement in patient care

Taken together the benefits from providing single room accommodation as the norm within our hospitals presents an overwhelming case for change and the introduction of a policy which will support the move to a higher level of single room provision.

Any policy which follows from the findings of the Report will impact only on new-build projects or where major healthcare facilities are being substantially refurbished. The policy will not have any immediate impact on the existing estate although we would expect to see a move towards increasing percentages of single rooms across the entire NHSScotland estate and for this trend to accelerate as new projects are completed

Recommendation

New-build Accommodation

The Steering Group recommends that for all new-build hospitals or other healthcare facilities which will provide in-patient accommodation **there is a presumption that all patients will be accommodated in single rooms** unless a lower percentage provision for specific patient groups has been justified to and approved by the Scottish Government Health Directorate as part of the business case approval process. Those

patient groups for which 100% single room provision is mandatory will be agreed with the Chief Medical Officer.

Such single room provision should take into consideration the social needs of patients and ensure that patients are not socially isolated and lacking human contact. This should be addressed through sensitive design e.g. the provision of social space close to single rooms, social and emotional support mechanisms for patients during their stay and changes to visiting arrangements,

Refurbished Accommodation

For projects where the refurbishment of major healthcare facilities has been approved as the appropriate option to be developed the Steering Group recognise that it is extremely difficult for it to establish a definitive proposal as each of the buildings to be refurbished will present unique problems. However it is the Steering Group's recommendation that in developing proposals for substantially refurbishing healthcare facilities which include in-patient accommodation Health Boards **must seek to provide the maximum number of single rooms consistent with the approach for new-build healthcare facilities** i.e. that the clinical needs of separate patients groups should be identified and catered for within what is technically practical and feasible in the context of the refurbishment proposal and the nature and range of clinical services provided by the facility being refurbished whether in part or as a whole.

The Steering Group also strongly recommends that in developing proposals for single room provision in refurbishment projects the **overall level of single room provision within the refurbished accommodation must be 50% as an absolute minimum.**

Bed Spacing

On bed spacing the Steering Group considers that the advice included in the Interim Statement remains appropriate, namely;

Having regard to ergonomic criteria, primarily the space required for patient handling and other activities which take place in the immediate vicinity of the bed it is recognised that the minimum bed space should not be less than 3.6 m x 3.7m.

N.B. This is the recommendation in NHS Estate 2002. Document – Infection Control in Built Environment.

These recommendations are endorsed by all members of the Single Room provision Steering Group.

Health Finance Directorate
Capital Planning and Asset Management Division

The Scottish Government

CEL 19 (2010)

2 June 2010

Addresses

For action
Chief Executives, NHS Boards.
Chief Executives, Special Health Boards.

For information
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Chief Executive, Architecture and Design Scotland.
Chief Architect, SG Architecture and Place.
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Dear Colleague

A POLICY ON DESIGN QUALITY FOR NHSSCOTLAND: 2010 REVISION

Summary

1. This letter provides colleagues of a revised statement of the Scottish Government's Policy on Design Quality for NHSScotland (Annex A). This policy articulates the Scottish Government Health Directorates ambition for NHSScotland's asset base and to embed the need for well-designed, sustainable healthcare environments as an integral part of high quality service delivery.

2. The Policy also sets out the principles which a NHSScotland Body's strategic Design Action Plan and the supporting project-specific Design Statement should address (Annex B). Two further annexes provide reference to relevant Scottish Government Health Directorates asset-related policies and supporting guidance (Annex C) and, useful references and web links (Annex D).

3. This CEL and the attached policy statement supersedes NHS HDL(2006)58. This CEL also provides information on Design Assessment within the SGHD CIG Business Case process.

Action

4. **Addressees should ensure that a copy of this CEL with Annexes is cascaded to all appropriate staff within their area of responsibility.**

5. **The revised Policy on Design Quality for NHSScotland and associated Mandatory Requirements take immediate effect.**

Background

6. HDL(2006)58, issued in 2006, announced the first publication of a Policy on Design Quality for NHSScotland which provided a policy framework to implement the aims of the then Scottish Executive Health Department, supported by a 3-year Framework Agreement with Architecture and Design Scotland. This Framework Agreement has now ended and therefore a revised policy statement is required to ensure that

the outcomes of development projects meet the Scottish Government's objectives and expectations for public investment. Support for the implementation of the design agenda will be provided by means of a coordinated, tripartite working arrangement between Scottish Government Health Directorates (SGHD), Health Facilities Scotland (HFS) and Architecture and Design Scotland (A+DS) to facilitate the procurement of well-designed, sustainable, healing environments which support the policies and objectives of NHS Boards and the Scottish Government Health Directorates.

7. The attached policy statement reflects consultation with stakeholders in the Scottish Government, Architecture and Design Scotland and Health Facilities Scotland. It provides a concise definition of policy along with details of Mandatory Requirements which must be complied with by NHSScotland Bodies. For those Special Health Boards (and Operating Divisions within) which are not actively engaged in the procurement of new healthcare premises and refurbishment of existing health care premises for the purpose of service provision, the general principles of the attached policy should be applied, such as when considering premises for lease or occupation.

8. The principle upon which this policy is founded builds upon the core principle of the 2006 policy statement - to ensure that all NHSScotland bodies fully integrate design quality and sustainable development principles throughout all stages of the healthcare building procurement process as an integral part of the commitment to deliver a high quality, safe, sustainable environment for patient care.

Implementation

9. SGHD, A+DS and HFS have developed a range of initiatives to assist NHSScotland in addressing design quality issues in the procurement of healthcare building projects, the summary objectives of which are to:

   - raise the level of design quality achieved through infrastructure investment;
   - increase the capacity of health boards and central agencies in respect of the above; and
   - assist in sharing good practices.

10. In order to meet the above objectives, A+DS will deliver 3 main activities on behalf of SGHD.

    Activity 1
    Engaging with partner organisations and central procurement agencies in order to assist them in their work and in raising design awareness of 'external' parties involved in delivery.

    Activity 2
    Providing, in partnership with HFS, a co-ordinated assessment of the potential quality of proposed projects to support those responsible for decision making within the business case process.

    This will involve contributing particular expertise on the aspects of design relating to Government policy on design and place making to a process administered and led by HFS who will, in addition to the administrative elements, provide particular expertise

on the aspects of design relating to functionality, particularly technical and sustainability standards developed by HFS and the Department of Health in England.

Activity 3
Assisting in building a body of knowledge and evidence of good practice in both process and product across NHSScotland.

A strand of this activity is the development and management of a website, '**Healthier Places**', which has been designed to house information on good healthcare design to assist NHS Boards in the development of the project brief and to raise awareness of the good practice being developed and delivered across NHSScotland and elsewhere. In addition to providing guidance on the development of 'Design Statements' and, articles on healthcare design topics, the website holds a project resource - '**Pulse**' - a database of projects and examples of good practice.
http://www.healthierplaces.org/

Design Assessment and the Business Case process

11. An assessment of design quality is now part of the SGHD Business Case process. All projects submitted to the SGHD Capital Investment Group for approval are now subject to an assessment of design quality and functionality, including technical and sustainability standards. This Design Assessment will take place at the Initial Agreement, Outline Business Case and Full Business Case stages of approval.

12. The Scottish Government Health Directorates' purpose in developing and implementing this process is to ensure that the outcomes of development projects meet the Government's objectives and expectations for public investment. The aim of mapping design into the Business Case process is to support the implementation of this Policy by improving the level of design quality achieved across NHSScotland and, ultimately, the outcomes achieved by doing so.

13. To assist NHS Boards in utilising good design to achieve the best outcomes from their development projects, Boards are required to develop and produce a Design Statement prior to the submission of their Initial Agreement. The Design Statement is the first control document produced for a project and should be consistent with the Board's overall vision contained within the strategic Design Action Plan.

14. Additional guidance on Design Assessment and the Business Case process has been added to the Scottish Capital Investment Manual. The guidance also includes advice on the preparation of the Design Statement.

Yours sincerely,

Mike Baxter
Deputy Director, Capital Planning and Asset Management

A Policy on Design Quality for NHSScotland

Scottish Government
Health Finance Directorate
Capital Planning and Asset Management

2010

A POLICY ON DESIGN QUALITY FOR NHSSCOTLAND

Purpose

The purpose of this document is to provide NHSScotland Bodies[1] with a clear statement of policy on design quality. It also provides guidance on how NHSScotland Bodies can ensure that design quality is embedded within the healthcare building procurement process.

Context

In recent years the value of good design has been increasingly recognised and a wealth of evidence based findings has demonstrated that good design adds value, not only from an economic perspective but also in terms of a range of social and environmental benefits. This capacity to add value is particularly important for healthcare environments, where the physical and psychological well-being of patients, staff and visitors is of paramount consideration.

In October 2000, the Prime Minister established a UK-wide 'Better Public Buildings' initiative to achieve a step change in the design quality of publicly procured buildings. Over the last decade, Scottish Ministers have in parallel, through their policies, sought to achieve a culture of quality in the procurement of publicly-funded buildings that embraces good design as a means of achieving value for money and sustainable development.

The Scottish Government has five strategic objectives; it is committed to creating a Scotland that is:

- wealthier and fairer;
- stronger and safer;
- healthier;
- greener; and
- smarter.

It is clear that the design quality of our built environment must, by necessity, play a vital part in our ability to meet all of these strategic objectives. Government, thus, continues to promote and to encourage investment in well-designed buildings and places in both the public and private sectors.

This document responds to Government's quality objectives within guidance and initiatives particular to NHSScotland.

Design quality is especially important in the context of healthcare building, where well-designed health buildings can help patients recover their spirits and their health and have a positive effect on staff performance and retention, as well as improving the efficiency of operational relationships and providing better value for money in the context of whole-life costs. The Scottish Government therefore recognises the importance of good building design as the physical means of delivery for a range of wider policy objectives.

The Scottish Government's Architecture and Place Division which was established to implement policy commitments, can offer advice on design and acts as the sponsor body for Architecture and Design Scotland, an Executive Non Departmental Public Body established as the national champion for good architecture, design and planning in the built environment.

Health buildings can often be the places in which we may feel at our most vulnerable, whether as a patient, relative or friend. The quality of the building environment that we experience can provide us with calming reassurance or, conversely, it can accentuate our feeling of stress and unease.

Many factors can contribute to engendering a sense of ease, for instance: the first impression of the facility from the public realm, the entrance experience, the degree of natural light, brightness and airiness, colour and texture, an easily understood layout with clearly defined focal points, uncluttered signage and a clear distinction between the realms of public and private space, maintaining patient dignity.

In most health buildings, external public spaces are vitally important in that they can also provide the opportunity for positive respite for patients, visitors and staff in periods of stress. Sensitive landscaping and well-defined public space in a healthcare environment can provide far more than simply an attractive setting. Through careful design social or intimate, tranquil spaces can be created, providing an environment where people might want to sit or meet, even spaces for physical therapy and play and which further contribute to the healing process.

Scottish Ministers believe that a concern for the quality of Scotland's architecture must go far beyond the design of individual buildings. Distinctive, high quality places as well as high quality buildings are vitally important to the social, environmental and economic success of our cities, towns and rural communities.

The Scottish Government's National Outcomes set out what Scottish Ministers aim to achieve in the next ten years, and a key objective for the built environment is that “we live in well-designed, sustainable places where we are able to access the amenities and services we need”.

A sustainable community is one which not only makes a positive contribution to mitigating the effects of climate change; a sustainable community is a place which is successful in the way that it continues to flourish socially and economically over time. The quality of healthcare facilities along with other public buildings and places can be a significant factor in making communities successful, because they can offer a great deal to the creation of a wider, attractive environment which people would wish to inhabit.

The overarching Purpose of the Scottish Government is to increase sustainable economic growth, and good place-making supports this Purpose in the following ways:

Good place-making can influence the economy of an area by making it an appealing place to live, to work, and to visit - It can provide environments and infrastructure which function well; link well with surrounding settlements; which attract business; and in which business can flourish;

- Good place-making can provide communities with an important cultural context, a sense of pride and belonging and, a sense of local and national identity;

- Through good design, safe, welcoming places can be created to which people would wish to return frequently, and which would have a greater chance of longevity;

- Good place-making can promote active, healthy, inclusive lifestyles by providing attractive and accessible green spaces, and through layouts which discourage car usage and which provide the right facilities within reasonable walking and cycling distance;

- Good place-making can embed community facilities into our communities in ways which are accessible and which provide a richness of opportunity for social interaction; and

- Good place-making can have a profound effect on the sustainability of our lifestyles, in respect of the impact that we have on the land and other scarce resources; how much energy we use; and, again, through reductions in car usage.

The Planning etc. (Scotland) Act 2006 requires Local Authorities to develop dynamic plans which describe a vision for the local community; establishing ‘what goes where and why’ in order to develop a community structure that supports strategic objectives. Health Boards are encouraged to be active participants in the development of these local development plans in order to:

- embed the principles of healthy urban development into the plan – those aspects needed to support local health promotion and help people make healthier lifestyle choices;

- embed the principle needs for the physical infrastructure needed to deliver on ‘shifting the balance of care’ such as the potential location of new healthcare facilities;

- establish major infrastructure strategies needed to support the delivery of the Single Outcome Agreement; and

- link the board’s strategic asset management plan into the local development plan to consider both the beneficial use of public land assets and the transport implications of major changes in estate strategy.

The creation of a new or refurbished facility can bring with it the opportunity to show a positive civic presence, and the development of a high quality public building can do much to help the creation or regeneration of communities. It is thus also a matter of considerable importance that health buildings respond to the urban or rural contexts in which they sit. This includes considerations such as how they fit within historic contexts, how the approach and entrance act to welcome concerned families and friends, and how they contribute to the quality of their neighbourhoods, both in terms of the buildings themselves and the places they create around them. In considering the provision of healthcare facilities, it is important to also give careful thought to the opportunities for good ‘place-making’.

Healthcare buildings play a significant part in the environment and, increasingly, patients are becoming "empowered" to demand better environments in which they receive healthcare. It is appropriate that we embrace such matters and introduce appropriate policies and initiatives in Scotland.

At the heart of this policy is the recognition that strong client commitment is required to deliver facilities that provide the high quality and sustainable caring environments we desire. We now expect NHSScotland bodies to develop their individual visions for the kind of places in which patients, staff and visitors would wish care to be provided:

- for patients - a welcoming, healing and reassuring place that supports life;

- for staff – a place that supports staff in their work and that will not constrain future work;

- for visitors – a place to meet and discuss, a place that I can leave loved ones.

These environments must be able to support the high quality healthcare services which are to be delivered within.

This aligns with the aims of the **Scottish Healthcare Quality Strategy**. The Strategy reflects the shared ambitions of everyone in Scotland whether a patient, a carer, or whether working for NHSScotland in a community, primary or acute care setting, to create high quality person-centred, clinically effective and safe healthcare services and to be recognised as being world-leading in our approach.

The aim is for everyone in Scotland to work together to ensure better health and higher quality healthcare services which are flexible and reactive to each individual circumstance. These principles are consistent with the aims of this policy, to embed the need for well designed, sustainable and safe healthcare environments as an integral part of service delivery.

The term 'good design' is not merely a question of style or taste but describes what arises from the intelligent and creative synthesis of many interrelated factors such as: strategic planning of healthcare provision; social and physical regeneration; the local urban (or rural) context and forms; links to infrastructure and transport; sustainability agendas; the building's sense of welcome; intelligibility of layout; security; unobtrusive supervision; ease of use and maintenance; efficiency; and, promotion of human dignity. It covers the way in which buildings sit within and, contribute to, their community as well as how they work and look. Successful healthcare design resolves a wide range of functional requirements efficiently whilst, at the same time, exploring the opportunities to provide an uplifting environment for patients, visitors and staff.

Design, therefore, is just as much about process of change management as it is about what the final product looks like. Design is present in all projects - first you imagine what you are looking to achieve and test that this is possible. You then move on to sketching a limited number of possible worlds that, to varying degrees, will house and support your needs. By analysing these and making choices you narrow the options down to the world that you will build. You get the best result by using skill and a spark of creativity to make every element work hard to deliver more than one part of your vision. Therefore good design need not cost more and the difference between achieving good or poor quality outcomes is more often the result of having the right knowledge or advice, understanding, care and commitment.
Good Design is the intelligent application of a scarce resource

Good design can therefore be seen as largely objective. A design proposal can be evaluated through the use of appropriate tools such a Design Quality Indicators (DQIs) to assess whether the proposed building will function efficiently and effectively; whether there is clear evidence of thoughtful, imaginative and even inspirational proposals that will not only work, but will help the people within them to work and feel better; whether the proposed building will integrate with its surroundings in an appropriate manner and create a sense of place and; whether the materials, construction methods and the proposed layout will enhance long-term value for money. Indeed, Scotland's Infrastructure Investment Plan 2008 establishes that good design is key to achieving best value from all public sector investment.

> **"*In developing Scotland's infrastructure, the Scottish Government recognises that good building design should be responsive to its social, environmental and physical context. It should add value and reduce whole life costs. Good building design should be flexible, durable, easy to maintain, sustainable, attractive and***

healthy for users and the public; and it should provide functional efficient adaptable spaces ... Equally important to the design of individual buildings is the design of sustainable places. Well-designed buildings and places can revitalise neighbourhoods and cities; reduce crime, illness and truancy; and help public services perform better".

Design evaluation, in particular Post Project Evaluation and Post Occupancy Evaluation, can contribute to the emerging field of "evidence-based design" which is proving a valuable tool in the design process towards both reducing costs and improving outcomes. Research has shown that evidence-based design methods, introduced early in the process of facility programming and design can improve the experience of patients who will be treated within the healthcare facility and assist in health recovery which results in improving medical outcomes, shorter bed stays, greater throughput and a reduction in patient and staff stress.

The Way Forward

The Scottish Government has set out an ambitious agenda to modernise NHSScotland and its infrastructure. This agenda challenges NHSScotland Bodies to modernise the way in which healthcare is delivered to patients and challenges them to ensure that the infrastructure developed, deployed and maintained is capable of supporting high quality, modern patient care.

The NHS in Scotland has a vision for:

'an estate designed with "a level of care and thought that conveys respect"; buildings that grow from the local history and landscape, that are developed in partnership with the local community. A work of joint learning and jopint responsibility that is particular to that community and that place; "not off-the-shelf show boxes".' [A]

The **Better Health, Better Care Action Plan**, published in 2007, affirms the Scottish Government's commitment to improving the physical and mental wellbeing of the people of Scotland through supporting the provision of well designed, sustainable places. The Action Plan also articulates the Scottish Government's vision of a mutual National Health Service, a shift to a new ethos for health in Scotland that sees the Scottish people and the staff of the NHS as partners, or co-owners, in the NHS.

These policy changes place health and wellbeing and the over-arching issue of sustainability at the centre of the lives of the people of Scotland as the NHS strives to become more accountable and patient-focused. If the commitment to create a healthier, wealthier, fairer, safer and stronger Scotland is to be realised, NHS Boards must ensure that in the context of designing new facilities, they deliver not only high quality solutions but also realise benefits for community development and the wider environment.

(Ref [A]: From an interview with Dr Harry Burns, Chief Medical Officer - *A Vision of Health: NHSScotland's agenda for realising value in the developing healthcare estate*, Architecture and Design Scotland 2009)

Frameworks Scotland

Evidence exists that the traditional approach to construction procurement fails to satisfy clients and does not generate the efficiency improvements delivered in most other industries. With regard to NHSScotland, this means available capital and revenue resources must be used more effectively, to deliver better outcomes and make the best use of 'client-side' skills and capacity.

Health Facilities Scotland has, on behalf of the Scottish Government and NHSScotland, led the development of a collaborative construction procurement initiative. **Frameworks Scotland – Excellence in Healthcare Construction** is a strategic and flexible partnering approach to the procurement of publicly funded construction work and complements other procurement initiatives for the delivery of health facilities in Scotland.

This partnering approach reduces the adversarial attitudes which can make it more difficult to deliver successful project outcomes. Partnering arrangements reduce waste in both the process and product streams, promote quality and also facilitate the sharing of best practice and lessons learned from one project to another.

It should be recognised by anyone involved in planning, designing and delivering NHSScotland's healthcare estate that there is currently an unprecedented opportunity and a need both to ensure and to demand well-designed, sustainable healthcare buildings. Framework Scotland therefore is and, should be, one of the primary vehicles for delivering sustainability in the construction, management and maintenance of the healthcare estate. Delivering design quality and sustainability through the Framework will require a consistent approach with the Scottish Capital Investment Manual guidance, alongside the application of and, proper attention to, AEDET and BREEAM Healthcare requirements at the appropriate stages of a project.

Further information on the Frameworks Scotland initiative can be found on the Health Facilities Scotland website.

The 'hub' Programme

The **'hub' Initiative** is a major programme of the Scottish Futures Trust.

'hub' is a procurement vehicle supporting a long term programme of investment in community infrastructure for local authorities, NHS Boards and other public sector bodies across Scotland. It will provide a mechanism for delivering assets more effectively through a single partner, with continuous improvement leading to better value for money. The opportunity for a private sector delivery partner is to be part of a systemic approach to infrastructure planning and delivery in a territory over an extended time period.

'hub' will deliver projects from a core identified scope and, in future, from wider service development business cases, in particular those projects that promote joint working amongst community planning partners. Projects will focus on new build but could also include the refurbishment and asset management services of existing infrastructure.

The overarching objective of 'hub' is to improve the efficiency of community infrastructure delivery – with a particular emphasis on supporting the provision of more joint services across local authorities, health boards and other community partners. In Scotland there are good examples of joint premises development, but these tend to be one-offs and do not offer a model for the long term strategic planning of joint premises development and joint services delivery. 'hub' should provide a systematic approach to service delivery, from a model predicated on continuous improvement in both cost and quality. This can be achieved by the public sector by working in close partnership with a private sector partner, where both the public and private sector stakeholders have a financial interest in a successful outcome.

The first two Pathfinder Territories are the South East and North. More details can be found at http://www.hubscotland.org.uk/

It is critical that design issues are addressed regardless of the procurement method used to deliver healthcare buildings and, that the outcomes specified for these buildings in terms of the care environment are reflected in their design. However, the implementation of design quality and the procurement route used have a particular relationship and therefore the procurement method used can have a significant bearing on the development of design quality during the process. Although it can be argued that good design is independent of cost, its relationship with design management and procurement in practice needs careful examination. The National Audit Office report "Improving Public Services Through Better Construction" (March 2005) supports this view and advocates that all key stakeholders should be involved and all proposals subjected to independent challenge before key design decisions are made and that design and decision-making be based on "whole-life value".

The concept of 'evidence-based design' has already been mentioned in the context of Post Project Evaluations. There has been a historical assumption that each healthcare building has to be unique in order to fulfil the vision and aspirations of the brief which can, unfortunately, result in the repetition of mistakes, albeit perhaps unintentionally. The starting point for any new healthcare building should, logically, be the successes of one or a number of existing buildings based on a careful analysis of what constitutes the 'good' and what constitutes the 'bad'.

Also of importance is the emerging field of 'supportive healthcare design'[B]. Traditionally, there has been an assumption that the main requirement placed upon a healthcare facility should be the mitigation of infection or the risk of exposure to disease. Additionally, through decades of advances in medical science and technology, many healthcare designers and technicians have been conditioned to create buildings that are successful delivery platforms for new technology. By concentrating on the need for functional efficiency and the pathogenic concept of disease and health, healthcare facilities have been procured which contain environments which can be considered stark, institutional, stressful to their occupants and thus detrimental to the quality of care they are intended to provide. In spite of evidence of the major stress caused by illness and the subsequent traumatic experience of hospitalisation, there has, historically, been comparatively little emphasis on the creation of surroundings which can calm patients, reinforce their ability to cope in such environments and generally address their social and psychological needs.

The process of 'supportive design' begins by eliminating the environmental characteristics which are known to contribute to stress or can have negative impacts on outcomes and, importantly, continues by emphasising the inclusion of characteristics in the healthcare environment which research has indicated have the ability to calm patients, reduce stress and strengthen their ability to cope and promote healthy, healing processes.

(Ref [B]: Ulrich R S, 2000 - 'Effects of Healthcare Environmental Design on Medical Outcomes'
Ulrich R S, 2000 - 'Evidence based environmental design for improving medical outcomes. Proceedings of the conference: *Healing By Design: Building for Healthcare in the 21st Century*', McGill University Health Centre, Montreal)

Due to the length of time that healthcare buildings may be in use, there is potential to constrain changes in delivery practices. It is therefore vitally important that design processes are an integral part of a robust procurement mechanism in order to ensure that buildings are not only functional when constructed but are flexible and adaptable over their entire lifetime.

SGHD will continue to play its part in supporting and implementing wider Scottish Government procurement strategies and policies by setting these within a healthcare-specific context.

Policy Aims

- The purpose of this policy is to articulate the Scottish Government Health Directorates ambition for NHSScotland's asset base and to embed the need for well-designed, sustainable healthcare environments as an integral part of high quality service delivery. It also provides guiding principles which a NHSScotland Body's strategic Design Action Plan and the supporting project-specific Design Statement should address (Annex B) and two further annexes providing reference to relevant Scottish Government Health Directorates asset-related policies and supporting guidance (Annex C) and, useful references and web links (Annex D).

- The Scottish Government is committed through its stated Purpose to encouraging sustainability by the development of infrastructure and place: "providing sustainable, integrated and cost-effective public transport alternatives to the car as well as a planning and development regime which is joined up and geared towards achieving sustainable places and sustainable economic growth". The Government recognises that the Scottish planning and building standards mechanisms have a role in the delivery of a high quality, sustainable physical infrastructure. However, the Government also recognises that everyone connected with the delivery of this infrastructure has a role to play in driving up standards for the planning, design and maintenance of the built and natural environment. The Scottish Government Health Directorates believe that improving the quality of our caring environments is crucial to delivering this commitment and to achieving the Government's National Outcome of ensuring that 'we live in well-designed sustainable places where we are able to access the amenities and services we need'. Improved caring environments also act in support of the 'Healthier' Strategic Objective to help people to sustain and improve their health, especially in disadvantaged communities, ensuring better, local and faster access to health care.

- **Therefore this policy statement requires that all NHSScotland Bodies, as an integral part of the commitment to deliver the highest quality of environment for patient care, ensure that design quality is fully integrated into the healthcare building procurement process and is apportioned appropriate emphasis throughout all stages of this process.**

Scope

This policy must be considered alongside other Scottish Government Health Directorates policies and supporting guidance bearing upon NHSScotland assets including those for capital procurement, asset management, sustainable development, environmental management, fire safety, and, property transactions. Such central policy statements and supporting guidance are intended to inform the formulation and updating of an NHSScotland Body's operational policies and of supporting guidance. Such operational policies and asset strategies are important corporate expressions of a NHSScotland Body's intensions and as such should be a manifestation of integrated service planning and the appropriate involvement of all relevant interests.

This policy must also be considered alongside other relevant Health Directorates, Scottish Government and UK Government policies and commitments.

Policy Statements

Statement 1 All NHSScotland Bodies[1], as clients, must commit to the integration of design quality in the procurement of healthcare building throughout all stages of the process, regardless of procurement route used.

Statement 2 All NHSScotland Bodies must have a strategy for design quality – a Design Action Plan - consistent with and supportive of the Health Directorates and wider Scottish Government asset-related policy and supporting guidance (listed at Annex C) and, with the policy guidance contained within Annex B of this document.

Statement 3 The SGHD must provide guidance on compliance with those aspects of statutory and mandatory requirements which are particular to the procurement, design and delivery of healthcare buildings and guidance on best practice. This will be effected through the support to be provided by Health Facilities Scotland and Architecture and Design Scotland under the tripartite working partnership with SGHD.

Mandatory Requirements

1. Each NHSScotland Board must have a clear, articulated vision for its estate and strategy for using good design to deliver that vision – a Design Action Plan – consistent with Health Directorates and wider Scottish Government policy. The Design Action Plan must be appended to a Board's Property and Asset Management Strategy (PAMS) and reviewed annually as part of the PAMS review process.

2. Each NHSScotland Board must appoint a member of the NHS Board to act as Design Champion at a strategic level to assist in articulating and promoting the Board's design vision and, where not impractical, also a Senior Officer to act as supporting Design Champion at a technical level with knowledge and experience in capital investment procedures and expertise in technical matters.

3. All NHSScotland Bodies engaged in the procurement of both new build and refurbishment of healthcare buildings must do so in compliance with EU, UK and Scottish Government procurement policy and guidance.

4. All NHSScotland Bodies engaged in the procurement of both new-build and refurbishment of healthcare buildings must, prior to the submission to SGHD of the Initial Agreement, develop a Design Statement for each project as a means of establishing the design standards for which the project and how these will be assessed by the Board within the Business Case approvals process. The Design Statement must be consistent with the strategic Design Action Plan.

5. All NHSScotland Bodies, as clients, must ensure the development of a clear project brief which should not only describe the physical requirements of the building but should also articulate the Board's vision and aspiration consistent with the strategic Design Action Plan. The 'Design Statement' may be used or developed for to this purpose, and should be included in briefing and in the HLIP issued to prospective PSCPs

6. All NHSScotland Bodies engaged in the procurement of both new-build and refurbishment of healthcare buildings must carry out independent environmental accreditation for projects. The Scottish Capital Invesment Manual requires that all new builds above £2m obtain a BREEAM Healthcare (or equivalent) 'Excellent' rating and all

refurbishments above £2m obtain a 'Very Good' rating. If the capital costs are less than £2m, projects should undertake a BREEAM pre-assessment to establish whether BREEAM Healthcare is a viable option.

7. All NHSScotland Bodies engaged in the procurement of both new-build and refurbishment of healthcare buildings must use and properly utilise the English Department of Health's Activity DataBase (ADB) as an appropriate tool for briefing, design and commissioning.
[If deemed inappropriate for a particular project and an alternative tool or approach is used, the responsibility is placed upon the NHSScotland Body to demonstrate that the alternative is of equal quality and value in its application.]

8. All NHSScotland Bodies must use Design Quality Indicator (DQI) tools as appropriate to manage their design requirements through the life of a project. The English Department of Health's Achieving Excellence in Design Evaluation Toolkit (AEDET Evolution) and associated supplementary tools such as ASPECT are recognised as the exemplars towards achieving the appropriate level of project design management.

Monitoring

9. SGHD will monitor the integration of design quality into healthcare building procurement through the Business Case approvals process which will be facilitated through a coordinated assessment of the potential quality of proposed projects to support those responsible for decision making within the Business Case process.

This assessment will involve the contribution of particular expertise on the aspects of design relating to government policy on design and place-making from Architecture and Design Scotland and, of particular expertise on the aspects of design relating to functionality, particularly technical and sustainability standards, from Health Facilities Scotland.

10. All NHSScotland Bodies engaged in the procurement of both new-build and refurbishment of healthcare buildings must conduct thorough and, independent, Post Project Evaluations (PPEs) and Post-Occupancy Evaluations (POEs) and make available to SGHD any resulting evaluation data which will be used in the formulation of generic reports to inform future policy and disseminate nationally the lessons learned.

The planning of Post Project Evaluations and Post Occupancy Evaluations is a mandatory requirement of the Scottish Capital Investment Manual for all projects in excess of £1.5 million and should be considered best practice for all projects.

For projects between £1.5m and £5m, the NHSScotland body's internal governance arrangements should ensure the production and reporting of PPEs and POEs. An annual summary report in respect of such projects should be submitted to the Scottish Government Capital Planning and Asset Management Division.

For projects in excess of £5m, PPE and POE Reports must be submitted to the Scottish Government Capital Planning and Asset Management Division. Timescales for the production and delivery of such reports will be monitored by SGHD in common with other key milestones in the project lifecycle.

Full Business Cases for capital projects will not be approved unless Post Project Evaluation and Post Occupancy Evaluation has been properly planned in advance and suitably incorporated into the Full Business Case.

Support

11. Support for the implementation of the design agenda will be provided by means of a coordinated, tripartite working arrangement between SGHD, Health Facilities Scotland and Architecture and Design Scotland to facilitate the procurement of well-designed, sustainable, healing environments which support the policies and objectives of NHS Boards and the Scottish Government Health Directorates.

[1] NHSScotland Bodies in the context of this document means all Health Boards, Special Health Boards and the Common Services Agency performing functions on behalf of Scottish Ministers

Policy Guidance

A NHSScotland Body's **Design Action Plan** and supporting project-specific **Design Statement** should be consistent with and supportive of the guidance contained within this Annex and the policy and guidance documents listed at Annex C.

[The following guidance aligns in part with the Scottish Government "*Construction Procurement Manual: Section 6 – Design quality in building procurement*" but with appropriate additions and amendments in order to apply to the healthcare context.]

Contents:

Design Quality

Establishing and evaluating design quality

General

Boards are required to establish design quality criteria (non-negotiable project aims and benchmarks) for all development projects in the form of a project 'design statement'. As we use buildings, for the most part, to house and support human activity, these criteria are to be built around the needs of the people who the facility will directly impact upon and further expanded to include the elements needed to deliver on the broader responsibilities of using public money – that of addressing local and national needs. The Design Statement then includes the board's proposals for self assessment of the project as it progresses, describing the key stages at which the decisions will be checked against the established design quality criteria, how this will be done and what skills and information will be needed.

Assessing design quality is not a wholey subjective activity. Many other design issues can be assessed objectively - whether a building will function efficiently and effectively; whether there is clear evidence of thoughtful, imaginative and even inspirational proposals that will not only work, but support people to feel and work better; whether it responds positively to its surroundings; whether it provides well-defined and meaningful public spaces for patients and the community; and whether the materials, construction methods and the proposed layout will enhance long-term value for money. The Scottish Government Construction Procurement Manual: Section 6 – Design quality in building procurement lists a number of key issues to be considered in evaluating a design.

General guidance on achieving value for money (VFM) in works procurement, based on seeking to achieve an optimum combination of whole life cost and quality, is set out in Section 2 of the Scottish Executive Construction Procurement Manual. Evaluating and achieving consensus on quality can be facilitated through the use of formal techniques and there are a number of tools which can help. The Construction Industry Council (CIC), for example, has developed its Design Quality Indicator (DQI) to evaluate the design quality of buildings throughout the development and life cycle of a project.

Healthier Places Website

This website has been designed to house information on good healthcare design to assist boards in brief development and to raise awareness of the good practice being developed and delivered across NHSScotland and elsewhere. In addition to providing guidance on the development of 'design statements' and, articles on healthcare design topics, the website holds a project resource - '**Pulse'** - a database of projects and examples of good practice that can be used in two main ways:

- **Search by project type** : to find out about recent and current developments in NHSScotland, and elsewhere, that are of a similar type to the one being considered by the client team. This will provide basic details on the project, the key team members involved and images where available. Key design documents, such as the 'Design Statement' and Post Occupancy Evaluations will be included once they are in the public realm to allow greater learning from what has gone before. It is envisaged client teams will use this search primariliy at the outset of a project to

    - Establish similar works by colleagues in other boards
    - Facilitiate contact to allow shared learning

- Establish possible visit lists for the client team and key stakeholders to raise awareness and understanding.

- **Search by area** : to find photographs of different areas of the healthcare estate (such as entrance areas and consulting rooms) to raise awareness of what has been achieved elsewhere. It is envisaged client teams will use this search primariliy to assist benchmarking within the 'design statement' being developed for projects.

The '**Pulse**' resource will be maintained by A+DS using project information submitted to the NHSScotland Design Assessment Process (once the Business Case is in the public realm), case studies of completed developments, and suplimented by images submitted by users of the site. NHS Boards are encouraged to upload photographs taken during visits to inspirational developments (especially those outwith Scotland) to assist knowledge transfer between project teams.

Achieving Excellence Design Evaluation Toolkit (AEDET Evolution)

However, healthcare building design frequently involves complex concepts which are more difficult to measure and evaluate. In order to address these specifics in a DQI context the Department of Health (England) Estates and Facilities Directorate has developed the **Achieving Excellence Design Evaluation Toolkit (AEDET Evolution)**, the latest version of which is AEDET Evolution and is a tool specifically directed towards achieving excellence in design rather than ensuring compliance with legislation, regulation and guidance. High scores in AEDET do not therefore necessarily guarantee compliance with statute.

The AEDET Evolution toolkit assists NHS Bodies in managing their design requirements from initial proposals through to post-project evaluation. It is a benchmarking tool and forms part of the guidance for PPP, joint ventures including ''hub'' and, conventionally funded schemes. AEDET Evolution contains evaluation criteria which ensure that design takes place within a common, industry wide framework. The toolkit enables the user to evaluate a healthcare building design in a non-technical way that covers the three key areas of **impact**, **build quality** and **functionality**. AEDET Evolution tool is complemented by A Staff and Patient Environment Calibration Tool (ASPECT).

Unpublished research into the use of AEDET Evolution and ASPECT suggests these tools are reliable, presenting high correlations between different judges using them to evaluate healthcare design. More recent independent, unpublished research into the experience of collaboration between designers and clinicians using AEDET Evolution indicates that the tool facilitates improved design quality. It achieves this by further facilitating a recursive discovery and a mutual utilisation of the considerable skills and factual knowledge of the designers and clinicians thus serving to improve their skilled performance.

AEDET Evolution uses ten key criteria that have evolved from sources including the Commission for Architecture and the Built Environment (CABE) and the Construction Industry Council (CIC) to establish an industry-wide framework for assessing design. The ten key criteria are:

Uses
Service philosophy, functional requirements and relationships, workflow, logistics, layout, human dignity, flexibility, adaptability and security.

Access
Vehicles, parking, pedestrians, disabled people, wayfinding, fire and security.

Spaces
Space standards, guidance and efficient floor layouts.

Character and innovation
Excellence, vision, stimulation, innovation, quality and value.

Citizen satisfaction
External materials, colour, texture, composition, scale, proportion, harmony and, aesthetic qualities.

Internal environment
Patient environment, light, views, social spaces, internal layout and wayfinding.

Urban and social integration
Sense of place, siting, neighbourliness, town planning, community integration and landscaping.

Performance
Daylight, heating, ventilation, air conditioning, acoustics, passive thermal comfort.

Engineering
Emergency systems, fire safety, engineering standardisation and prefabrication.

Construction
Maintenance, robustness, integration, standardisation, prefabrication, health and safety.

Using AEDET Evolution

AEDET Evolution is a tool for evaluating the quality of design in healthcare buildings. It delivers a profile that indicates the strengths and weaknesses of a design or an existing building. It is not meant to produce a simplistic single overall score. Because of the nature of design, which inevitably involves trade-offs, it may not be possible to produce a building which would have the maximum score for all the sections. Indeed it may quite often be the case that a high score for one statement reflects a design which inevitably may be scored low on another statement. A single overall score would thus be misleading and uninformative.

AEDET Evolution can either be used by individuals or in workshops by groups. In the latter case it is probably desirable that an independent experienced user of AEDET Evolution should facilitate the group to avoid excessively lengthy debate. AEDET Evolution can be a helpful tool in enabling a group to come to a common understanding with the help of a facilitator who can moderate group discussions.

AEDET Evolution can be used at different ‘scales’ in evaluating the design of a healthcare building, e.g. at a building scale, a department scale or a complete site scale. The level of detailed information available may dictate the scale of the evaluation.

AEDET Evolution is designed to be used by those involved in the commissioning, production and use of healthcare buildings. In particular public and private sector commissioning clients, developers, design teams, project managers, estates/facilities managers and design champions may find AEDET Evolution a helpful and useful tool. User clients such as patient representatives and members of the general public should also be able to use AEDET albeit within a workshop environment alongside other more experienced professionals.

When to use AEDET Evolution

AEDET Evolution can be used to evaluate existing buildings in order to compare them or understand their strengths and weaknesses.

AEDET Evolution can be used on the plans for new buildings in order to evaluate and compare designs.

AEDET Evolution can be used on “imaginary” buildings in order to set standards for preparation of a brief.

AEDET can be used at various stages during the design of healthcare buildings – as the level of detail of the information available increases it should be possible to respond to more of the statements in the tool.

A Staff and Patient Environment Calibration Tool (ASPECT)

To complement AEDET Evolution, the Department of Health (England) Estates and Facilities Directorate has developed the ASPECT toolkit. ASPECT stands for A Staff and Patient Environment Calibration Tool and is based on a database of over 600 pieces of research. That research deals with the way the healthcare environment can impact on the levels of satisfaction shown by staff and patients and on the health outcomes of patients and the performance of staff.

This research and the ASPECT toolkit itself are set out under 8 headings. ASPECT can be used as a stand alone tool, or it can be used to support AEDET Evolution to provide a more comprehensive evaluation of the design of healthcare environments.

When used to support AEDET Evolution it enables the user to score the Staff and Patient Environment Heading of AEDET Evolution in a more detailed, accurate way.

The toolkit has 3 layers which allow users to create a design evaluation profile:

- the SCORING layer on which you score;
- the GUIDANCE layer that gives more detailed help;
- the EVIDENCE layer that points to available research evidence.

Inspiring Design Excellence and Achievements

Inspiring Design Excellence and Achievements (IDEAs) is another useful design tool published by Department of Health (England) Estates and Facilities Directorate to assist in the generation of design briefs, proposals and schemes

IDEAs was conceived and developed by the University of Sheffield as a way of utilising the latest research evidence. IDEAs starts the design of healthcare places with people – patients, staff and visitors – and responds to the emotional and functional requirements of healthcare delivery.

IDEAs deals with activities rather than individual spaces or rooms. Examples of activities that occur in healthcare places include:

- arrival
- bathing

- bed / rest
- circulating
- consulting
- shopping
- sanctuary
- socialising
- waiting

IDEAs can be used either as a standalone tool within a workshop context or as a web-enabled integrated tool by individuals.

Role of Health Facilities Scotland

Health Facilities Scotland (HFS) is a division of National Services Scotland and provides operational guidance to NHSScotland Bodies on non-clinical topics such as:

- estates engineering;
- building and architecture;
- procurement;
- fire safety;
- environment;
- energy;
- property management;
- clinical waste management;
- decontamination
- legionella and other estates related pathogenics;
- hazards and safety action notices.

This assists NHSScotland in meeting the Government's policy and strategic aims and the establishment of professional/technical standards and best practices, including the promotion of new initiatives in the field of healthcare practice and management. Clearly HFS can have a pivotal role to play in generally supporting the implementation of this Policy, through the provision of supporting guidance and through their Continuous Professional Development (CPD) programme which provides essential training to NHSScotland personnel on operational issues as impacted by national policies and objectives.

With particular regard to the objectives of this Policy, HFS will lead the agenda through the central operation of Frameworks Scotland and through the administration of the Design Assessment process now mapped into the Business Case process. HFS will provide technical expertise including those aspects of design which relate to functionality and, particularly, technical and sustainability standards. This will underpin the strands of work identified to support the design agenda in NHSScotland through the coordinated tripartite working relationship between HFS, SGHD and A+DS and with NHSScotland stakeholders.

Role of Architecture and Design Scotland (A+DS)

Architecture and Design Scotland has been established by Scottish Ministers as the National Champion for Good Architecture, Design and Planning in the built environment. Its aim is to operate within the Scottish Government's policy framework on architecture and design, as well as in partnership with a range of bodies in the private and public sector to help turn the aspirations of policy into reality.

The aim is to raise the quality of new development, so that high standards of layout and design are the rule, not the exception. Overall, the development of well designed and

attractive cities, towns and villages will support the Scottish Government's National Outcomes for the built environment.

These Outcomes are designed to ensure that Scotland has the infrastructure, the physical services, the economic ability, the healthy environment, the cultural references and the social networks that allow our current and future generations to achieve their potential in a balanced manner.

SGHD and A+DS have developed a range of initiatives to assist NHSScotland in addressing design quality issues in the procurement of healthcare building projects, the summary objectives of which are to:

- raise the level of design quality achieved through infrastructure investment;
- increase the capacity of health boards and central agencies in respect of the above; and
- assist in sharing good practices.

In order to meet the above objectives, Architecture and Design Scotland will deliver 3 main activities on behalf of the Scottish Government Health Directorates.

Activity 1
Engaging with partner organisations and central procurement agencies in order to assist them in their work and in raising design awareness of 'external' parties involved in delivery. This will be done through actions such as:

- assisting in the development of policy and guidance relating to the procurement of, and design quality in, the built estate;
- participation in steering groups such as those developed for Frameworks Scotland and in the development of strategies and processes (such as team selection and KPIs) for central procurement agencies. Also assisting, as requested by such central teams, in providing advice to client teams on matters effecting design quality, particularly pertaining to preparation for the assessment described in 2 below; and
- assisting Health Facilities Scotland (HFS) and others in the development of training and awareness sessions.

Activity 2
Providing, in partnership with HFS, a co-ordinated assessment of the potential quality of proposed projects to support those responsible for decision making within the Business Case process.

This will involve contributing particular expertise on the aspects of design relating to government policy on design and place making to a process administered and led by Health Facilities Scotland who will, in addition to the administrative elements, provide particular expertise on the aspects of design relating to functionality, particularly technical and sustainability standards developed by HFS and the Department of Health in England.

Activity 3
Assisting in building a body of knowledge and evidence of good practice in both process and product across NHSScotland, through:

- the development and management of the web-based project resource, '**Pulse**';

- the development of case studies of projects on the ground;
- providing dedicated support to 'demonstration projects' where ambitious parties are taking on particular aspects of work, particularly around cross-sectoral working; and
- identifying and commissioning targeted pieces of work by relevant specialists to inform, test, and develop concepts and tools to support Health Boards and their stakeholders in their delivery of good design.

Role of the Scottish Futures Trust

The Scottish Futures Trust is an independent company, established by the Scottish Government with a responsibility to deliver value for money across all public sector investment. SFT operates at arms length from the Government but works closely with the public sector to seek and deliver improved value for tax payers.

Currently the Scottish Government and other public sector bodies in Scotland invest some £5billion annually on infrastructure. By any measure this is a substantial amount of money and spend on investment is recognised to be a strong contributor to economic growth. In today's tight financial environment, improving the value for money of this spend, and finding innovative ways to finance infrastructure investment to enhance economic growth are imperative and are SFT's primary functions.

Recommendations from Audit Scotland, the National Audit Office and others have included the requirement for many of the services that SFT is now providing. The company brings focused commercial and financial skills in infrastructure financing, procurement and delivery into the public sector. SFT retains and grows this knowledge within infrastructure-investing organisations across the public sector.

SFT is leading the £1.25 Schools Investment Programme and has developed a National Housing Trust to deliver an initial £130million of housing. SFT is also involved in a wide range of major transport and accommodation infrastructure projects and by the end of 2010/11 SFT's portfolio of projects are expected to be valued at more than £7billion.

In relation to this policy SFT is responsible for managing the 'hub' programme. Their remit includes:

- Enabling the establishment and development of hub groups
- Help motivate change
- Help promote the strategy and disseminate best practice
- Steer the implementation of the procurements
- Develop processes, procedures, supporting documentation and guidance
- Support the drive for continuous improvement
- Manage the administration of the enabling fund
- Develop and implement methodology for benefits evaluation

SFT may also get involved in an advisory or validation role on other projects, and therefore has an interest across all healthcare work.

NHSScotland Design Champions

The Scottish Government Health Directorates requires that NHS Board Chairs are responsible for nominating a member of the NHS Board and a Senior Officer to take on the roles of Design Champions for the Board. The Senior Officer should have knowledge and experience in capital investment procedures and expertise in technical matters. Both must be in a position to influence the overarching policies, procedures and ethos of the organisation, albeit in their own manner.

A Design Champion should be:

- well respected and an excellent communicator who is able to promote the need for good design to a wide variety of audiences, both within the Health Board and externally. Both appointees should be able to persuade colleagues and the wider community of the benefits of well designed healthcare buildings;
- a consensus builder, able to bring together the various stakeholders both within the local authority and the wider community; and
- able to see the 'bigger picture' and help develop a 'vision'.

The Design Champions, ideally, are in a position to influence the work undertaken by the Health Board but it is important that the roles are not created for status but, for action.

- The role of the Design Champion is not project specific but is to advocate design quality and to ensure that mechanisms are in place within the NHS Board to deliver the design agenda. NHS Design Champions will be supported, where possible, by Architecture and Design Scotland through ad hoc requests for assistance.

Design Champions will be expected to work with all the necessary disciplines. The role of the Design Champion is expected to include a responsibility to ensure that:

- the building promotes civic pride;
- patients and staff are consulted and their views addressed;
- the building fits into the local surroundings and settings;
- the building is fit for purpose;
- the building takes on board modern technology;
- the design considers sustainability issues;
- quality is questioned throughout the process; and
- there is support for resisting change which reduces quality and VFM.

The Design Champion should ensure that:

- aspirations for design quality underpin all projects undertaken across the NHS Board;
- a Board Design Action Plan is produced and delivered;

- a Design Statement is produced for all development projects establishing the design quality criteria for that project, the key points which these criteria must be given value and profile and, the process by which the board shall assess the developing project against those criteria. **The Design Champions must ensure that appropriate skills are utilised in the self assessment. Depending on their own background and role, this may be either by their own personal actions and involvement or through the appointment of others with appropriate skills**;

- an assessment is made of the current environment for patients, staff and visitors;

- the Achieving Design Excellence Evaluation Toolkit (AEDET) is used throughout a project where appropriate;

- the evaluation of tenders is based on VFM and not lowest cost;

- budgets and timetables are realistic;

- the Board has the correct skill mix to deliver the design agenda; and

- the scheme includes the full involvement of the local community and the support of clinical and other staff.

The Design Champion will raise the profile of design excellence by:

- encouraging the selection of designers with a proven track record of good design or design awards;

- promoting awareness of national and international best practice in healthcare design;

- encouraging schemes, either refurbishments or new build, to be put forward for local and national competitions and awards;

- maintaining a forum for regular review and feedback to the Board; and

- recognising the support, guidance and initiatives available.

It is important that NHS Boards acknowledge the fact that the role of Design Champion is one that requires a considerable amount of time. Design Champions are required to understand what constitutes good design across a range of different and, sometimes very technical, disciplines and the amount of time required to do so can easily be underestimated.

Maintaining design quality on site

There is a risk that, once a project moves on to site, the client may underestimate the effort which will continue to be required to maintain design quality. Any shortcuts taken at this stage can put the overall design quality of the project at risk. The client's design advisers must be retained throughout the construction process in order to monitor the quality of design and finishes.

These advisers should also ensure that design aims are not sacrificed in the management of change during the running of the project. If design standards and quality thresholds are clearly defined, then the review process throughout the delivery stage should provide sufficient safeguards against quality dilution. A structured process of quality checks during construction is important to ensure that what has been agreed is actually being provided. All partners should be involved in these checks as the risks of unsupervised changes on site

can affect a wide range of matters, such as the provision of resource areas necessary for facilities management and the quality of finishes, which in turn may affect both cleaning and maintenance.

Public Space

It is important that public space is not considered as an afterthought. New public buildings need to be responsive to their contexts, both in terms of their scale and form, and in the materials they use. It is not enough to simply respond to the appearance of surrounding buildings; it is important to also think in terms of the integrity of surrounding public spaces. In the creation of new public buildings, it is important that the design team is perceptive of the buildings' relationships to the maintenance or improvement of existing public spaces or the potential for new public spaces.

The creation of public buildings can also give something positive to the public realm rather than simply create residual areas around them, and clients may wish to consider whether the location of a building is sufficiently sensitive to merit the inclusion of an urban design specialist on the team. An approach is required which gives due consideration to the way in which the spaces created by buildings will be used, and to the needs of users in terms of accessibility, safety, lighting, shading, shelter, orientation, views, surfaces, seating, planting, and maintenance.

Transport and car-parking

NHSScotland Bodies are required by Scottish Government policy to co-operate with local authorities, regional transport partnerships and other stakeholders in the planning and implementation of local and regional transport strategies towards ensuring that through integrated transport policies NHSScotland facilities, in particular new developments, are accessible to all by public transport, walking and cycling. NHSScotland Bodies operational policies should take into account the strategy for internal NHSScotland systems and car parking. The organisation’s Travel Plan is the integral document to addressing these goals.

Detailed guidance can be obtained from Health Facilities Scotland.

It is important to realise the need to adopt a robust design strategy for on-site car parking and people movement which is consistent with the NHS Body’s Travel Plan. The design strategy should address:

- space utilisation;
- traffic and pedestrian flow;
- access for short-stay visitors, mobility-impaired persons and late night/shift workers;
- wayfinding and markings;
- landscaping;
- security, technology and lighting.

The availability of parking for both cars and cycles can influence transport choices for those using a facility. All new and re-development proposals should be designed for safety and the

convenience of all users. Good design and layout of a development can significantly improve the ease of access by non-car modes, for example:

- entrances to be as close as possible to pedestrian routes and bus stops; and
- links to cycle networks, with secure parking near the main entrance.

Proposals should be specifically tailored to local circumstances, aspirations and priorities, for example speed management strategies, attractive green space and landscaping, in order to bring a wide range of social and community benefits and improve quality of life. Design of public transport facilities should be user friendly and attractive as well as functional to encourage and retain modal shift.

Use of the arts in healthcare

There may be scope for the involvement of artists or craftsmen in a project. When successfully implemented, artworks can help to create more distinctive and attractive buildings and urban spaces and enhance the public's experience of an architectural space. In a healthcare perspective, artwork can have an even more positive effect. NHSScotland can benefit in many ways from the adoption of the arts in healthcare programmes including better patient environments and an improvement in staff morale. It is recognised that art in healthcare can benefit the NHS through the promotion of user and staff involvement in the design of the healthcare environment and can subsequently have an impact on health outcomes. There is growing evidence that patient recovery rates and stress levels are improved by the adoption of appropriately selected art in healthcare programmes. The integration of art can also assist in improving the communication of health information and the redesign of services. The involvement of staff, patients, artists and local communities at the earliest stages of the design process for new buildings and refurbishments can result in innovative, creative solutions.

It is important to also realise that a person’s perception of environmental stimuli is influenced by their feelings or emotional state. Although scientific research has produced evidence that emotionally appropriate art can improve certain patient outcomes, there is also evidence that inappropriate styles and subject matter can have an opposite effect. This is especially pertinent to psychiatric patients, who, by nature of their illness can be vulnerable to disturbing interpretations of visual arts, thus exacerbating their condition.

The use of art in a healthcare setting need not be restricted to the visual arts. Other arts activities which involve music, performing arts, storytelling and patient workshops can have therapeutic benefits and can have great value in certain healthcare environments. Art-related therapy, e.g. dance, music, drama or art creation, is recognised as an integral psychological and creative tool for the improvement of physical and mental well-being.

Some NHS Boards retain the services of “artists in residence”. However, Boards may also wish to seek specialist advice from public art agencies with regard to including artwork within a project.

Boards may wish to consider allocating a specific budget for the inclusion of artwork as an integral element of a project. However, care should be taken to ensure that any resulting expenditure is proportionate to the benefits and is appropriate to the building's status and function, in order to avoiding subsequent criticism of the project for inappropriate use of public funds.

Traditional building procurement allows for a detailed design to be developed prior to building contracts being issued. However, under Public Private Partnerships (PPP) projects contractual commitments are made with the private sector partner before the detailed design is complete and thus once contractual agreements are in place any additions or changes to them will incur significant additional costs. The requirements of the design are defined in advance by identifying the outputs required which in turn set the framework for the design, within which more detailed specifications for the services to be provided can be accommodated. **To ensure that the arts are incorporated into both the building and maintenance contracts they must be part of the output specifications.**

Design quality in building procurement

Key issues

- Good design is not an alternative to value for money (VFM), but is integral to its achievement. A good building project must also contribute to the environment in which it is located, deliver a wider range of social and economic benefits and be adaptable to accommodate the needs of future users. An enhanced built environment which incorporates principles of good design can improve the quality of life of those who use and work in public buildings. Throughout the life of a building, design excellence can improve the standard of public service delivery, make it more efficient and contribute to staff recruitment and retention. Good design can ensure that capital costs are competitive and that savings can be achieved on running costs through reduced maintenance, energy and operating costs without compromising the attractiveness and quality of the building. **Therefore investing in good design can make the most beneficial and effective use of resources, can add value and represents a sound investment in the future. High quality building design is therefore a key mechanism in providing VFM in the provision of healthcare services.**

- As the aim of any procurement exercise should be to achieve Value for Money, it is recommended that the "most economically advantageous" evaluation be employed. Value for Money is defined as the optimum combination of whole life costs and quality (or fitness for purpose) to meet the customer's requirements and can be taken to be largely analogous with "most economically advantageous".

- Using an evaluation based on the "most economically advantageous" offer gives the procuring organisation the opportunity to take factors other than price into account when awarding contracts.

- **Good design is not merely a question of visual style or personal perception but arises from the careful synthesis of many interrelated factors including architectural vision, functionality and efficiency, structural integrity and build quality, accessibility, security, sustainability, lifetime costing, flexibility in use and a sense of space in the community.**

- Clients must be clear about the level of funds available for a project from the outset and ensure that their aspirations for quality are underpinned by realistic and affordable assumptions.

- Clients must carefully assess and define their priorities before appointing design consultants.

- The process must allow for effective consultation with all stakeholders to establish a clear, well-defined brief.

- Sufficient time and resources should be allocated towards establishing the client's design quality aspirations.

- Post Project and Post Occupancy Evaluations of building programmes are mandatory for major projects and any lessons learned must be shared with the Scottish Government and other NHSScotland bodies.

- Quality Based Selection (QBS) is a structured procedure for selecting a design team and professional advisers. Design competitions are a means to primarily select specific design ideas or outline design ideas for a project, rather than the design team personnel.

- All public sector appointments, irrespective of the client's preferred nature of competition or reference to any other guidance on design competitions, must be consistent with EU procurement rules in terms of process and outcome. Generally, public sector clients must ensure that design team appointments follow the procedures described in *Section 3* of the works procurement guidance part of the Scottish Government Construction Procurement Manual. **However, in the NHSScotland context, detailed guidance on the appointment of consultants, conditions of contract and contract guidance in should be sought from Health Facilities Scotland.**

- The role of an informed client is vital in ensuring the successful delivery of the project within the agreed timescale and budget and to the required standards and requirements of all users.

Achieving good design

From the outset, clients must be clear about the level of funds available for a project and ensure that their aspirations for quality are underpinned by realistic and affordable assumptions through establishing the right budget. These quality matters and functional requirements must then be set out in a clear and thorough project brief. In order to monitor and control the procurement, design and construction processes, procedures and responsibilities should be clearly defined (and assigned). Ideally, designers should engage in challenging and constructive dialogue with the client, building users and those involved in supplying and manufacturing materials, goods and services. All concerned should work to a realistic and robust timetable, which gives the design team enough time to develop and achieve a good solution.

An informed, demanding and committed client is vital in ensuring that aspirations for quality are maintained throughout the procurement, design and construction processes.

By nature of their complexity, healthcare buildings can be expensive to manage and maintain due the imposition of build cost constraints during the procurement process in order to adhere to a short-term financial hurdle. The influence of design is fundamental to the successful outcome of a project not only in terms of how the building will deliver its intended functions but also its long-term operational efficiency. An appropriate level of investment in the design stage early in the process incurs a comparatively small capital outlay but ultimately influences the revenue streams associated with the operation of the facility and also influences the successful provision of the services to be delivered. **It is therefore imperative that the process recognises the need to address the whole-life cycle of the building and the integral part that good design can play in mitigating potential future financial and operational penalties imposed by the adoption of short-term vision. Whole-life costing must be the standard for investment decisions. Those involved in the making of such decisions will be ultimately judged on the lifetime VFM of their decisions rather than whether they managed to get a project past the initial financial hurdle.**

Healthcare facilities and the associated equipment used therein must be designed to support all the people who are likely to use them in order to operate effectively. It is therefore vital that all potential users of a proposed facility – staff, public and patients – are involved early in the design process and throughout its progress. Additionally, stakeholders such as regulators, professional bodies, community bodies, etc, should also be engaged throughout the process as this has the potential to provide a valuable source regarding the projected use of the facility, the processes which will be undertaken therein and how the facility's users will work or interact with it. Early user involvement in the design process can help ensure that a planned facility will support the people who are to use it.

The standardisation of systems and processes to be carried out within a proposed facility, layouts, room orientation, human interfaces, wayfinding and even storage can provide many benefits for patients, staff and visitors. Standardisation can help reduce mental workload and thus reduce errors, can make errors and departures from normal working easier to detect and can allow the transfer of skills and staff between departments with reduced training needs. Thus standardisation in conjunction with a wider engagement with users and stakeholders can also enhance safety.

The Scottish Government Health Directorates requires that NHS Boards appoint Design Champions at Board and Senior Officer level to consolidate a commitment to the championing of good design.

Evaluating good design

Design evaluation can be structured around a number of key design issues. To support the continual improvement of the construction and procurement process, Post Project Evaluations (PPEs) and Post Occupancy Evaluations (POEs) of building programmes are mandatory for major projects with a cost in excess of the delegated limits and are an integral requirement of the Scottish Capital Investment Manual. However, it is recognised that all projects would benefit from such evaluation and any lessons learned should be shared with the Scottish Government and other NHSScotland bodies in order to inform best practice and future policies. Independent PPEs should be carried out before the break up of the design team to review the success of the project against its original objectives, its performance in terms of time, cost and quality outcomes and whether it has delivered value for money.

Guidance on Post Project Evaluations and Post Occupancy Evaluations can be found within the Scottish Capital Investment Manual.

Post-Occupancy Evaluations have a significant role. The key advantage of POEs is the opportunity to achieve improvements in the ways future buildings will support operational objectives. Participants often identify areas where design improvements could be made and ways in which buildings and equipment could be used more cost effectively. These may only be minor, but they could produce significant benefits to future designs. The process of evaluation can provide important feedback on whether resources are being targeted at the most important areas. This can also enable poorly functioning or seldom used features to be eliminated from future designs and the repetition of mistakes to be avoided.

The nature of PPE and POE reports must be set out and agreed at the start, and project sponsors must ensure that provision is made for the independent preparation of both when setting budgets and timetables.

PPEs and POEs can be valuable in the formulation of “evidence based design” methodology. As has been stated in the preambles to this policy document, the field of “evidence-based design” is proving a valuable tool in the design process towards both reducing costs and improving outcomes. Research has shown that evidence-based supportive design methods, introduced early in the process of facility programming and design can have significant impact on the design of physical environments which can affect patient medical outcomes and care quality. An important impetus for the growing international awareness of healthcare facility design has been mounting scientific evidence that certain environmental design strategies can promote improved outcomes whereas other approaches can worsen patient health.

The Business Case

The Business Case process must include statements of expectation for design quality. Discussions with professional advisers at the earliest stage will assist in determining and defining design priorities and setting project objectives. Consideration of the design issues must continue throughout the entire process.

Detailed mandated guidance on the preparation of the business case is contained within the Scottish Capital Investment Manual.

Design Assessment

An assessment of design quality is now part of the SGHD Business Case process. All projects submitted to the SGHD Capital Investment Group for approval are now subject to an assessment of design quality and functionality, including technical and sustainability standards. This **Design Assessment** will take place at the **Initial Agreement**, **Outline Business Case** and **Full Business Case** stages of approval.

There are two complimentary areas of consideration in the design of healthcare buildings. These can broadly be described as healthcare specific design aspects – the areas generally covered by guidance issued by Health Facilities Scotland - and general good practice in design considering the human experience of being in and around buildings. These are brought together in this process and in the collaboration between Health Facilities Scotland and Architecture and Design Scotland in the NHSScotland Design Assessment Group which reports to the SGHD Capital Investment Group. This process forms part of the coordinated tripartite working relationship with SGHD and A+DS.

The Scottish Government Health Directorates' purpose in developing and implementing this process is to ensure that the outcomes of development projects meet the Government's objectives and expectations for public investment. The aim of mapping design into the Business Case process is to improve the level of design quality achieved across NHSScotland and, ultimately, the outcomes achieved by doing so.

CEL 19 (2010) which announces this Policy also announces commencement of this requirement and its incorporation into the Scottish Capital Investment Manual. The SCIM also addresses the Scottish Government's sustainability objectives in the context of the Business Case Guide.

The Design Statement

To assist NHS Boards in utilising good design to achieve the best outcomes from their development projects, Boards are required to develop and produce a Design Statement prior to the submission of their Initial Agreement. The Design Statement is the first control document produced for a project and should be consistent with the Board's overall vision contained within the strategic Design Action Plan.

The design statement is a means of setting out a Board's objectives in a series of agreed statements of intent and subsequently then describing a benchmark for how the physical result of the project will help deliver those investment objectives but not by giving a pre-determined design outcome, rather a view of what "success" might look like.

NHS Boards should also use the completed Design Statement as:

- a **briefing tool** to describe the design intention, or design vision, supplemented by more detailed briefing materials such as schedules of accommodation, key adjacencies and room data sheets as and when prepared;

- a **communication tool** to communicate the direction of the project to stakeholders and allow some early view of the benefits to assist both in building momentum/obtaining buy-in and in allaying the concerns that often accompany the commissioning of a new facility;

- an **advertising tool** to build confidence in the market in the direction and, by showing preparedness, viability of the project; and to motivate the market to bring its best and most appropriate skills to the table (in terms of the vision described).

Further guidance on the development and use of Design Statements can be found within the **Scottish Capital Investment Manual** and on the **Healthier Places website**.

Fire safety

Fire safety legislation and standards generally state that all people should be evacuated from a building in the event of fire. In terms of healthcare premises, this is not the case due to certain circumstances. Fire in a hospital or other healthcare building can be especially serious because of the difficulties and dangers associated with the emergency evacuation of patients, many of whom will be highly dependent. Therefore in such buildings the concept of progressive horizontal evacuation is the norm and is cited as so within the Technical Handbooks to the Building (Scotland) Regulations 2004. However, because of other special requirements particular to fire safety in healthcare buildings, guidance and recommendations contained in NHSScotland Fire Safety Management guidance, including NHSScotland Firecode, which is additional to the mandatory requirements set out in the Technical Handbooks to the Building (Scotland) Regulations 2004, must be adhered to. This additional guidance is ratified by the Scottish Government Health Directorates' Fire Safety Policy. The requirements of NHSScotland Firecode must be considered throughout the design process in addition to the requirements of the Building (Scotland) Regulations 2004. NHSScotland Firecode is published by Health Facilities Scotland.

Clients must ensure that there is close collaboration between all those who have an interest in the fire safety provisions of the proposed premises at the earliest stage in the design and, be satisfied that all such premises comply with all statutes bearing upon fire safety.

Designing for equality

NHSScotland, as a provider of services, is subject to equality legislation which requires the provision of services which are accessible to everyone. In a healthcare environment, it is important to recognise the complexity and the number of difficulties with which patients, staff and visitors may have to cope on a day-to-day basis. Sensory impairments, perceptual problems, reduced mobility, chronic pain, communication barriers, are but a few. Informed planning and design plays an important role in enabling people of all abilities access to services and facilities. It is therefore essential that the concept of "access and egress for all" is incorporated early in the design process and throughout its progress and that best practice guidelines are followed. By considering equality issues early in the design process, costs associated with addressing equality issues can be minimised which would inevitably prove more onerous if addressed retrospectively.

Egress for all in the case of an emergency must also be considered during the design process. Everyone rightly expects that if they are in a public building when an emergency occurs they should be subject to evacuation procedures which come into force to ensure their safety. However, in healthcare buildings there may be many persons who, by nature of their presence there or otherwise, may be particularly vulnerable. In particular, in larger healthcare buildings such as hospitals it will not be possible to ascertain the number of people who may have an impairment, let alone the type of impairment, or the number of people who may have cognitive or communication or language difficulties. Addressing the needs of all in the context of emergency egress early and throughout the design process will have significant benefit towards the procurement of a facility which ensures the safety of patients, staff and the general public.

To assist NHSScotland bodies in complying with the current equality and diversity legislative framework, the Scottish Government has produced an Equality and Diversity Impact Assessment Toolkit which was issued under cover of NHS HDL (2005)9.

Designing for dementia

There are over 65,000 people living in Scotland who have dementia and they, in common with other people with cognitive impairment, are users of healthcare facilities on a day to day basis across the country. Most people with dementia (60-80%) live in the community, and many of them have multiple health centre and hospital appointments and admissions in any year. As with designing for equality, designing for people with dementia embraces the concept of 'inclusive' design which tries to ensure that the built environment does not present insurmountable barriers to those who use it. Users will include people with physical, sensory and cognitive impairments, which may be progressive, intermittent or permanent and may also include people who may have temporary disabilities

Considering equality issues and the needs of those with dementia throughout the design process will benefit everyone, including people who use wheelchairs and walking aids, have other types of impairment, older people and families.

The University of Stirling Dementia Services Development Centre published guidance on designing for dementia in 2007. '**Best Practice in Healthcare Design for People with Dementia'** is a resource pack on dementia-friendly design which reflects a growing awareness of the need to create caring environments that meet the needs of people with dementia. Many of the features identified are the result of researched case studies and/or international best practice. The Dementia Services Development Centre at the University of Stirling has a specialist online library and information service and holds a large collection of documents relating to care of people with dementia: **www.dementia.stir.ac.uk** .

A component of the dementia resource pack is a **Dementia Design Checklist** prepared by Health Facilities Scotland and intended for use across all healthcare properties. It covers areas of healthcare premises, including primary care premises and those operated by independent contractors, where people with dementia are likely to attend as patients or visitors. Although the Checklist has been developed primarily for use in existing buildings it can provide a useful reference throughout the project design development process. The Dementia Design Checklist is available from the Health Facilities Scotland website: **www.hfs.scot.nhs.uk** .

Role of the Client

The key role of the client is to develop a clear, well-defined brief. At the beginning of the project, the client will need to establish the nature and scale of what is required. Clients should establish the views and aspirations of all stakeholders, and their aims will become the

reference point throughout the design and construction stages and can be used to test the overall success of the project over the long term. As with any building project, the initial stages are vital and a period when the most value can be added. Providing sufficient time and resources for strategic thinking will produce dividends in the long run. An informed and motivated client is critical to the success of a project.

As part of their responsibilities, the client must:

- fully develop a client strategy which has identified the need for the building whilst setting and securing a budget for the project. Understand that the budget cannot be finally established until the brief is settled;
- set a realistic and achievable timetable allowing sufficient time for consultation, brief development and for design;
- involve their Design Champion throughout the briefing and project delivery and listen to their comments;
- allocate sufficient time and resources to establish the client's design quality aspirations and set out clear benchmarks which the client must reinforce through all stages of the process;
- consider the skills and experience required of individual client team members, assess in-house skills and, where necessary, engage external consultants;
- where appropriate, appoint a Client Design Adviser to aid in the preparation of the brief and the assessment of the schemes that come forward through any competitive design process;
- consult with stakeholders to establish a clear, well-defined brief;
- be informed and demanding about operational requirements and quality objectives to get the best possible outcome from the procurement process;
- articulate the Board's requirements not only through the use of DQIs but in a clearly expressed brief that establishes and communicates their vision for the development;
- show commitment to achieving a well-designed and constructed project by giving design quality a high percentage in the assessment of bids and publishing that ratio. Make sure that bidders understand that poor or mediocre developments are not acceptable;
- establish clear and effective routes for communication between the Client Team and the bidding Design Teams during the bidding process so that the Board's needs and aspirations can be more fully discussed and incorporated into the designs that are brought forward;
- choose a Delivery/Design Team which is committed to achieving the best quality possible within the agreed budget and timetable; allow sufficient fee budgets for the work that the designers must do;
- not allow design time to be squeezed in order to recover time lost in the programme for other reasons – good design takes time; and

- carry out Post project Evaluations (PPEs) and Post Occupancy Evaluations (POEs) and ensure that the reports from these are available to SGHD for formulation of generic reports which can properly feed back into future procurement processes.

Project Brief

A vital factor in achieving high quality design is that clients have a firm and well-developed view of what they want, before appointing design consultants, and that this is clearly stated in project briefs. A well-developed brief, with common consensus on operational and quality priorities, is essential for the provision of better design. A rigorous approach to this stage of work will significantly improve the client's capacity to deliver a quality project.

On the other hand, proceeding with sketchy and under-investigated assumptions can be detrimental to the outcome of the project. Statements that set out the client's aspirations on design in terms of matters such as character and durability should be incorporated into briefs.

Detailed guidance can be obtained from Health Facilities Scotland.

Healthcare Associated Infection (HAI)

Of particular importance in the context of healthcare buildings is the need for the Project Brief to incorporate policy, guidance and best practice in relation to reducing Healthcare Associated Infections (HAI). It is vitally important to have a clear understanding of how the briefing, planning, design, procurement, construction, commissioning and ongoing maintenance of our healthcare property can contribute to the prevention and control of HAI. Guidance to ensure that prevention and control of infection issues are identified, analysed and planned for at the earliest stage of the provision of new or refurbished healthcare facilities Is contained within Scottish Health Facilities Note 30 (SHFN 30): 'Infection Control in the Built Environment: Design and Planning', published by Health Facilities Scotland. Additionally, Health Facilities Scotland has developed a system which aims to assess and manage the risk of infection in the built healthcare environment called HAI-SCRIBE, an acronym for Healthcare Associated Infection System for Controlling Risk in the Built Environment. HAI-SCRIBE has been designed as an effective tool for the identification and assessment of potential hazards in the built environment and the management of these risks. The tool should be applied from the design and planning stages of a project through to the occupation and operation of the facility.

Sustainability

The project brief should also contain statements on the client's desired approach to sustainability. Integral to the design and procurement process, a commitment to sustainable design can bring real benefits in terms of reduced running costs and quality of environment for users. Further general guidance on achieving sustainability in construction procurement is set out in Section 7 of the Scottish Executive Construction Procurement Manual.

Construction of new NHSScotland premises also provides an ideal opportunity to significantly reduce an organisation's environmental footprint. Designing the building and the processes that will be carried out within it with the aim of minimising the whole life costs and environmental impact of the facility can cut costs, improve client satisfaction, improve the healthcare body's public image and help deliver the nation's environmental objectives.

A NHSScotland Body, when setting specifications and letting contracts, should emphasise and promote environmentally preferable features in both the construction and the operation/running of buildings and, in the organisation of the services delivered within them,

to ensure sustainability over the projected property lifespan. The decision making criterion for selection of components and equipment should take into consideration the whole life costs and the environmental impact by setting out all the operational and physical components and risk aspects that contribute to these. Environmentally preferable solutions should be preferred unless there is clear evidence that their adoption would have outweighing disadvantages elsewhere.

To assist NHSScotland Bodies in delivering sustainable solutions and embedding energy efficiency into healthcare building projects, Health Facilities Scotland has developed a **Sustainable Development Strategy for NHSScotland** which provides a framework for sustainability issues in NHSScotland, including new builds and refurbishments. The use of this guidance in the preparation of Business Cases is a requirement of the Scottish Capital Investment Manual. Further useful guidance is also available within the Scottish Ecological Design Association Design Guides on design and detailing for more sustainable construction: **Design and Detailing for Deconstruction; Design and Detailing for Airtightness** and; **Design and Detailing for Toxic Chemical Reduction in Buildings**.
http://www.seda.uk.net/guides/

The Project Brief should also cite the use of the exemplar Environmental Management System, GREENCODE, through which NHSScotland Bodies can continually aim to improve the environmental performance of their property and, the exemplar energy efficiency guidance, EnCO_2de, which aims to ensure that everyone involved in procuring, managing and using healthcare buildings and equipment thinks about the implications of energy use.

Activity DataBase (ADB)

Activity DataBase (ADB) is the briefing, design & commissioning tool for both new-build and refurbishment of healthcare buildings. It is a briefing and design package with an integrated textual and graphical database, an interface with AutoCAD and an extensive graphical library - the complete tool for briefing and design of the healthcare environment.

ADB is produced by the Department of Health in England and is mandated for use in Scotland by the Scottish Government Health Directorates as the preferred briefing and design system for NHSScotland (see Mandatory Requirement 7 of this Policy). It has been developed to assist in the construction, briefing development, design and alteration of healthcare facilities.

Spaces designed using ADB data automatically comply with English planning guidance (such as Health Building Notes (HBNs) and Health Technical memoranda (HTMs) as ADB forms an integral part of the English guidance publication process. Whilst Scottish users can create their own project-specific briefs and designs using ADB's extensive library of integrated graphics and text which includes room data sheets, room layouts and departmental room schedules, extreme care should be taken to ensure that such data generated by the package are consistent and compliant with Scottish-specific guidance* such as Scottish Health Planning Notes, Scottish Health Facilities Notes (SHFNs) and Scottish Health Technical Memoranda (SHTMs) as published by Health Facilities Scotland.

* In the near future, all technical guidance will be available from the ‘Space for health web resource. The Space for Health website will provide a single portal to the knowledge and expertise of the four UK health organisations. It will draw together the technical guidance published by HFS, the DoH and their equivalents in Northern Ireland and Wales. Further information is available from Health Facilities Scotland.

The Design Team

Design Team selection

There are several methods of selecting the appropriate design team for a project, including Quality Based Designer Selection (QBS) which is a structured procedure for selecting a design team and, design competitions, which primarily select specific design ideas or outline designs for a project, rather than the design team personnel.

Where **Frameworks Scotland** is the chosen project procurement method, the design team will form part of the Principal Supply Chain Partner's (PSCP) delivery team and the members of the design team will have been assessed during the process of selecting the PSCP from the Framework. Although the design team will be managed by the PSCP they will work closely with the NHS Client in a collaborative fashion in delivering the design. (Further detail of the PSCP Appointment Process is available in the **Frameworks Scotland** section of the Health Facilities Scotland website).

The Scottish Government Construction Works Procurement Guidance: Section 3 – Procurement Strategies and the Appointment of Consultants and Contractors provides general information on some of the different procurement strategies available and the consultancy roles and professional advice that may be required at the various projects stages. Further general advice can be found on the Office of Government Commerce website.

In the NHSScotland context, detailed guidance should be sought from Health Facilities Scotland, and, for 'hub' projects, Scottish Futures Trust.

Regardless of the procurement strategy adopted, the appointment of a design team, consultants, professional advisers, etc, should be based upon the principles adhered to in Quality Based Selection methodology, outlined below. The Royal Institute of British Architects (RIBA), together with the Construction Industry Council, has published a booklet of Guidance for Clients to Quality Based Selection.

Quality Based Designer Selection (QBS)

QBS looks for an appropriate balance of design skills, experience, innovation, and an ability to perform on schedule to the required standards and within budget. A client, or client committee, selects a team based upon a weighted scoring of a list of relevant factors, including technical capacity, resources, previous experience of similar projects, deliverability of the design and partnering arrangements, aimed at determining which design team is most able to handle the project successfully and deliver a high quality result.

Throughout a building project, designs will be developed through constant dialogue with the design team, so it's essential that a key selection consideration is inter-personal skills; the client must feel that it has the ability to work with the designers.

It is essential to know that a design team's claimed expertise is actually currently available. The question of whether a design team has completed major quality projects within the past five years may give a more fair comparison between long established and new design teams. It is important to ensure that the principal designer responsible for successful past projects is present for the interview, and such individuals should be named in the contract if that design team is successful.

Design competitions

A competition to select an outline design, rather than the design team members, requires the client to have a well-developed brief for the project. Design competitions may be appropriate where there is either a unique problem that will benefit from a wide range of design approaches being explored (along with likely considerable public interest - which may be the case on a major new public building) or where the competition promoter wishes to encourage the development of new talent.

Procedure for appointing the Design Team

All public sector appointments, irrespective of the client's preferred nature of competition or reference to any other guidance on design competitions, must be consistent with EU procurement rules in terms of process and outcome.

The appointment or competition must therefore:

- strike the correct balance between quality and price to achieve whole-life VFM;
- evaluate the quality and price aspects against clear, unambiguous and pre-determined criteria;
- assess the technical and financial capacity of the design team (including design partnership arrangements) to deliver the project to the required standards of quality as well as the project on time and within budget; and
- maintain a full and transparent record of all aspects of the competitive process from start to conclusion, including the evaluation of the pre-qualification questionnaires as well as the selection and award stages.

Generally, as Public Sector clients, NHS Bodies are required to ensure that design team appointments follow the procedures described in *Section 3* of the works procurement guidance part of the Scottish Government Construction Procurement Manual. **However, in the NHSScotland context, detailed guidance should be sought from Health Facilities Scotland.**

Design Team selection criteria

Selection criteria should include design ability, aspiration, financial status, insurance provisions and technical capacity; the last of these enables consideration to be given to resources, technical suitability and past performance. This stage also aids production of an objective and transparent short list of the most suitable organisations, from all those that expressed interest in providing design services.

Selection criteria at the bidding stage

The award criteria enables a further qualitative assessment to be made of the specific proposals for the project - not just technical merit of the design proposals but also other aspects of successful delivery such as proposed team-working, management arrangements, and project team organisation.

Where design partnerships are proposed - perhaps to combine the innovative skills of a new or small design practice with the experience and resources of a longer-established designer - the award criteria enables the client to assess the ability of both parties to fulfil their responsibilities and to evaluate the compatibility of working cultures and practices. Visits to

the design offices of all candidates, including those forming partnerships, should follow a consistent approach and involve the same personnel.

NHSScotland Bodies, as clients, should consider the benefits to be accrued from requesting an Interim Bid Submission from bidders, particularly in a PPP or joint venture (such as 'hub') initiative context. This should be based upon clearly specified requirements within the Invitation To Negotiate (ITN) documentation and should be undertaken at an approximate mid-point stage through the period from release of OJEU to the return of ITN documentation with clear expectations on outputs from bidders that are measured but, not too cumbersome, perhaps structured by means of the use of the AEDET Evolution design evaluation tool.

Client organisations should consider the merits of visiting completed buildings by the shortlisted teams to investigate both their past work and allow the opportunitiy to meet previous clients and hear their experience of working with the team. Although this does take some time, the investment is small in comparison to the necessary investment of time and resources in the new project, and the potential learning in terms of the bidding teams ability and working relationships is invaluable.

Relation of selection criteria to budget considerations

The qualitative criteria adopted at the selection and award stages should be appropriate for the individual project and weighted to suit the circumstances. It is important that these aspects aren't considered in isolation but should be assessed as part of the VFM evaluation which takes account of fee proposals. Section 3 of the Scottish Government Construction Procurement Manual describes other aspects of appointing consultants, including the various ways of paying for professional services. In circumstances where *ad valorem* (usually percentage) fee structures are appropriate, consideration must always be given to the application of an abatement or capping mechanism in order to contain fee costs at a fair and appropriate level.

Criteria used during selection and award stages must be applied consistently by all of those involved in that stage of the procurement procedure. In other words, once selection and award criteria are established, individual members of a sift or tender evaluation panel must not apply different criteria. Furthermore, once selection criteria are established, they should be made available to candidates. Award criteria must be set out in either the OJEU contract notice or the contract documents; however it is recommended that criteria be advertised in the OJUE notice to demonstrate the client's commitment to valuing quality in the selection and hence assist in attracting similarly ambitious teams.

Scottish Government Health Directorates asset-related policies

Scottish Capital Investment Manual for NHSScotland [NHS CEL 19 (2009)]
Scottish Government Health Directorates
http://www.sehd.scot.nhs.uk/mels/CEL2009_19.pdf

Provision of Single Room Accommodation and Bed Spacing [NHS CEL 48 (2008)]
Scottish Government Health Directorates
http://www.sehd.scot.nhs.uk/mels/CEL2008_48.pdf

Fire Safety Policy [NHS CEL 25 (2008)]
Scottish Government Health Directorates
http://www.sehd.scot.nhs.uk/mels/CEL2008_25.pdf

Environmental Management Policy for NHSScotland [NHS HDL(2006)21]
(Currently under review)
Scottish Government Health Directorates
http://www.sehd.scot.nhs.uk/mels/hdl2006_21.pdf

Sustainable Development Strategy for NHSScotland [NHS CEL 15 (2009]
(Currently under review)
Scottish Goverment Health Directorates
http://www.pcpd.scot.nhs.uk/PDFs/CEL2009_15.pdf

NHSScotland Property Transactions [NHS HDL(2001)15]
(Currently under review)
Scottish Government Health Directorates
http://www.sehd.scot.nhs.uk/mels/HDL2001_15.htm

Property Management Policy and Other Related Matters [NHS HDL(1999)44]
Scottish Government Health Directorates
http://www.sehd.scot.nhs.uk/mels/1999_44.pdf

Supporting guidance

Scottish Capital Investment Manual website
Scottish Government Health Directorates

Capital Planning and Investment website
Scottish Government Health Directorates

Healthier Places website
A project resource to assist clients in the development of design statements, the briefing of projects and in learning from what is being acheived across NHSScotland and elsewhere.
www.healthierplaces.com

IDEAS
A design tool to aid NHS clients and their architects and design consultants to develop their briefs and design ideas.
http://ideas.dh.gov.uk/

Achieving Excellence in Design Evaluation Toolkit (AEDET)
The AEDET Evolution toolkit evaluates a design by posing a series of clear, non-technical statements, encompassing the three key area of Impact, Build Quality and Functionality.
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_082089

A Staff and Patient Environment Calibration Tool (ASPECT)
ASPECT is a tool for evaluating the quality of staff and patient environments in healthcare buildings and can be used as a stand-alone tool or in conjunction with AEDET to provide a more comprehensive design evaluation of healthcare environments.
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_082087

Activity Database
The briefing, design & commissioning tool for both new-build and refurbishment of healthcare buildings.
http://adb.dh.gov.uk/

Brief Introduction to the Planning System
http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/

NHSScotland Fire Safety Management / NHSScotland Firecode
Health Facilities Scotland

NHSScotland Asset Management System
Health Facilities Scotland

GREENCODE
Health Facilities Scotland

EnCO_2de
Health Facilities Scotland

Scottish Health Facilities Note 30: Infection Control in the Built Environment: Design and Planning
Health Facilities Scotland

HAI-SCRIBE: HAI System for the Control of Risk of Infection in the Built Environment
Health Facilities Scotland

NHSScotland Property Transactions Handbook
(Currently under review)
Scottish Government Health Directorates

Useful references and web links

General

Health Facilities Scotland
Provides operational guidance to NHSScotland healthcare bodies on non-clinical topics including: building and architecture, procurement, property management, estates engineering, energy & environment.
http://www.hfs.scot.nhs.uk/

Architecture and Design Scotland
The Scottish national champion for good architecture, design and planning in the built environment. This site incorporates sections relating to specific programmes of activity including; Scottisharchitecture.com a network of digital resources relating to architecture and the built environment and SUST - Sustainable Design in Architecture and the Built Environment – which aims to raise awareness of the importance of a sustainable approach to design in the built environment by providing increased access to guidance, tools and techniques for clients, design teams and community-based groups.
http://www.ads.org.uk/

Space for Health
Space for Health provides a single 'front door' portal to the knowledge and expertise of the four UK health organisations. It draws together the technical guidance published by HFS, the DoH and their equivalents in Northern Ireland and Wales.
Note: As of publication of this Policy, Space for Health is under development – further information should be sought from Health Facilities Scotland*.*
http://www.spaceforhealth.nhs.uk/

University of Stirling Dementia Services Development Centre
The Dementia Services Development Centre promotes good practice for those working in the field of dementia care including guidance on designing for dementia.
http://www.dementia.stir.ac.uk/

Centre for Architecture and the Built Environment
The UK government's advisor on architecture, urban design and public space.
http://www.cabe.org.uk/

Construction Industry Council
The representative forum for the professional bodies, research organisations and specialist business associations in the construction industry.
http://www.cic.org.uk/

Art in Healthcare
A forward-looking arts-in-health organisation formed from Paintings in Hospitals Scotland and the Friends of Paintings in Hospitals Scotland.
http://www.artinhealthcare.org.uk/

Scottish Government links

Scottish Government Built Environment
The provision of planning guidance and advice, construction procurement guidance and technical advice for Scottish Government Directorates and other bodies.
http://www.scotland.gov.uk/Topics/Built-Environment

Scottish Government Architecture and Place Division
Promoting and encouraging better architecture.
http://www.scotland.gov.uk/Topics/Arts-Culture/arch/intro

Scottish Government Construction Procurement Manual
Provides the Scottish Government Directorates, Executive Agencies and most sponsored bodies (as well as the Scottish Parliament Corporate Body and the Forestry Commission in Scotland) with mandatory policy and procedures for understanding construction works projects.
http://www.scotland.gov.uk/Publications/2005/11/28100404/04066

Scottish Government Sustainable Development

Sustainable development is integral to the Scottish Government's overall purpose - to focus government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.
http://www.scotland.gov.uk/Topics/Environment/SustainableDevelopment

Scottish Government Capital Planning and Asset Management website

Responsibility for the Health Directorates capital planning policy and strategy for NHSScotland and advice on all asset management matters impacting upon the Scottish Government Health Directorates responsibilities for NHSScotland.
http://www.pcpd.scot.nhs.uk/

Scottish Government Capital Planning and Investment website

Policy and guidance on planning NHS capital developments including those developed through public private partnerships.
http://www.pfcu.scot.nhs.uk/

Department of Health (England) links and publications

The architectural healthcare environment and its effect on patient health outcomes

A research project funded by the Department of Health and led by Professor Bryan Lawson and Dr Michael Phiri of the University of Sheffield School of Architecture, in collaboration with John Wells-Thorpe. The document is available for purchase from The Stationery Office, ISBN 011322480X.
http://www.tsoshop.co.uk/bookstore.asp?Action=Book&ProductId=011322480X

The Healing Environment

English Department of Health report which looks at the components of a healing environment and the effect on patients and staff.
http://www.dh.gov.uk/en/Managingyourorganisation/Leadershipandmanagement/Healthcareenvironment/Browsable/DH_4116478

Other references

OGC Procurement Guide 09: Design Quality

Office of Government Commerce 2004

Part of the OGC Achieving Excellence Procurement Guides
http://www.ogc.gov.uk/assets/images/cp0069.pdf

A guide to quality based selection of consultants: a key to design quality

Published 1998, £15.00 ISBN 1 898671 14 1

Construction Industry Council recommends this Guide as an inclusive guide and method for delivering construction clients with the consultants services they require and to realise the real economies and benefits to be had from good design.
http://www.cic.org.uk/services/publicationsCIC.shtml

Health Finance Directorate
Capital Planning and Asset Management Division

The Scottish Government

CEL 27 (2010)

20 July 2010

Dear Colleague

PROVISION OF SINGLE ROOM ACCOMMODATION AND BED SPACING

1. Chief Executive Letter (CEL) 48 (2008) confirmed the guidance for the provision of single room accommodation. It also advised that further work was being taken forward to advise the Chief Medical Officer.

2. This was taken forward as an Expert Consultation over three stages in which the Clinical Speciality Advisers (designated by the Chief Medical Officer) considered which of the specialities 100% single room provision is appropriate for.

3. That process has now been completed, and a number of conclusions reached, including:
   - the current provision of single room accommodation is not sufficient across NHSScotland; and
   - 100% single room provision is clinically appropriate in most clinical settings.

4. The Chief Medical Officer has reviewed the outcome of the Expert Consultation and taken into account the views of the speciality advisers. He has also considered the impact of increasing multidisciplinary team working and new ways of delivering care during the anticipated life span of new builds and extensive refurbishment.

5. Accordingly, the Chief Medical Officer has concluded that the guidance set out in the above CEL that there should be a presumption of 100% single rooms in future hospital developments, is confirmed as the policy for NHSScotland except for:
   - existing accommodation which is being refurbished, where taking into account the constraints of the existing building, a minimum of 50% single room accommodation would be allowed but as close to 100% as possible would be expected; and
   - in new developments where there are clinical reasons for not making 100% single room provision they should be clearly identified and articulated in the appropriate Business Case. However, each case would be subject to Scottish Government agreement as part of the Business Case approval process.

Addresses

For action
Chief Executive,
NHS Boards, National Waiting Times Centre Board, and State Hospitals Board for Scotland

For information
Chief Executive, NHS NSS

Enquiries to:

James H White
Property Policy Officer
Basement Rear
St Andrew's House
Regent Road
Edinburgh
EH1 3DG

[redacted]

[redacted]

www.scotland.gov.uk

6. In relation to the issue of bed spacing for multi-bedded rooms, the current advice remains unchanged. That is, taking account of ergonomic criteria, primarily the space required for patient handling and other activities which take place in the immediate vicinity of the bed, it is recognised that the minimum bed space should not be less than 3.6m (wide) x 3.7m (deep).

7. When carrying out refurbishment work to existing multi-bedded ward accommodation NHS Boards should seek to achieve this bed spacing. This may require considering reducing the number of beds in the room. NHS Boards should also seek to achieve this bed spacing standard in accommodation which is not being refurbished or replaced.

8. Guidance on the design of single rooms and supporting accommodation can be obtained from Health Facilities Scotland (http://www.hfs.scot.nhs.uk/)

9. For the avoidance of doubt this guidance covers all schemes for the replacement or refurbishment of patient accommodation whether they are within NHS Board's delegated limited or submitted for approval through the process outlined in Scottish Capital Investment Manual.

Next Steps

10. Arrangements have been made for NHS: National Services Scotland (NHS: NSS) to undertake a survey of single room provision in NHSScotland. This is a follow up to the single room census undertaken in 2006.

11. NHS Boards Chief Executives are there requested to ensure that their NHS Board cooperates with the survey. Further information will be available when the survey is issued by colleagues in NHS: NSS. The Census will be issued to the appropriate Information Services Manager(s) in your area and also the Facilities Manager(s) as it will require a collaboration to complete it.

Yours sincerely

MIKE BAXTER
Deputy Director

Health Finance Directorate
Capital Planning and Asset Management Divsion

The Scottish Government

CEL 32 (2010)

19 August 2010

Dear Colleague

Arrangements for the Management of NHSScotland Capital Resources after 2010-11

This letter sets out the recommendations made by the Capital Strategy Group on the future handling of capital resources across NHSScotland.

Background

1.Chief Executives received a presentation on 9th December 2009 at which the key strategic issues regarding capital were described. Chief Executives supported the establishment of a Capital Strategy Group to consider the issues raised. The Group have met on four occasions and considered a wide range of issues. The proposed report has been considered and cleared by the Group. The membership and terms of reference of the Capital Strategy Group is contained at Annex A to this CEL.

2. The Capital Strategy Group considered the following key issues:

- Capital Allocation Formula
- Treatment of Capital Receipts
- Prioritisation and approval of capital projects
- Delegated Limits
- Central budgets
- Revenue Financing

Impact of Recommendations

3. The recommendations from the Group are detailed in Annex B of this CEL. Measures to manage the transition to the new arrangements have been built into revised processes and, in addition to a summary of the recommendations below, an assessment of their impact if implemented is also provided.

4. In moving from an Arbuthnott based formula calculation to an NRAC based formula there will be some small variations in outcome. However, the full effect is mitigated by the much diminished quantum of Formula capital going forward due to the level of existing project commitments which take priority and the

Addresses

For action
Chief Executives, Directors of Finance NHS Boards and Special Health Boards; Directors of Estates and Facilities

For information
Chairs of NHS Boards and Special Health Boards

Enquiries to:
Ian Waugh
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Basement Rear
St Andrew's House
Regent Road
Edinburgh EH1 3DG

Tel: [redacted]
Fax: [redacted]
Point of contact:-
[redacted]

http://www.scotland.gov.uk

new process of bidding for project specific funding over each Board's delegated limits described below.

Capital Formula

a) In allocating Formula capital, safeguards will remain to ensure a continued equitable distribution of resources with adjustments for cross-boundary flows, an Island Board "uplift" to cover planned minor work programmes and a funding top slice earmarked for Boards performing specialist services.

b) The revised approach will see a reduced amount of capital distributed via formula. The formula capital will support more routine capital expenditure and projects which fall within Board delegated spending limits of between £1.5m and £5m. This replaces the current position where high levels of capital are allocated via formula (£279m in 2010-11) and Boards fund locally determined projects via the formula regardless of capital value.

c) In future all new projects with a capital value exceeding Health Board's delegated spending limit will be subject to a bid process for specific project funding. However, should Boards decide to re-prioritise formula capital away from the new purpose of routine and minor works and towards projects in excess of their delegated limit, this will be permitted.

d) It should be noted, however, that Boards will still be required to submit a business case to the Capital Investment Group for approval to proceed if the capital value of the project is above the Board's delegated limit as set by SGHD.

e) The Formula allocation will be calculated starting with the annual health capital budget and deducting central programme budgets and in-year project specific commitments of all Boards. To assist Boards' planning, the expected value of the formula allocation will be established for the Spending Review settlement period in order to allow forward planning, subject to Scottish Parliament approval of the annual budget.

Capital Receipts

f) For those capital receipts not already identified as supporting projects with approved Outline Business Cases the capital element of receipts will accrue to SGHD and be used to support the overall capital programme. Any element of an asset disposal that scores as revenue income (profit on disposal) will be left with the Health Board where the capital receipt arose. Although there may be gainers and losers amongst the Boards in one particular year, over a period of time the central pooling of capital receipts should benefit all Boards.

Project Approvals

g) The project approvals process will phased in over the next two to three years. A transparent and consistent approach will be employed across the whole of NHSScotland which utilises project assessment criteria and applies weightings incorporating factors such as 'invest to save' and taking into account national, regional and local level strategies, policies and objectives. Fairness and participation will be at the heart of the prioritisation exercise where there will be both a regional and central assessment of proposals for publicly funded capital projects going forward. The Capital Investment Group will have Service representation to consider this item. An additional safeguard will be to carry out an annual review of the project assessment methodology by Capital Investment Group, again with service representation.

Delegated Limits

h) Delegated limits will reflect each Board's size operating on a stepped basis as contained in Annex C.

Central Budgets

i) The number of central budgets for national priorities will be smaller and clearly defined. In the case of medical equipment the budget will be allocated from within the base capital formula. Other budgets such as the radiotherapy equipment budget will continue to be based on an agreed national replacement programme with clear parameters for planning, implementation and review and supported by the Technical Sub Group of the Scottish Radiotherapy Advisory Group.

j) Central budgets, including support of the hub initiative, will generally be allocated by a mix of formula and a bidding process subject to a *de minimus* arrangement where equitable to do so.

Revenue Financing

k) For existing PFI schemes, reversionary interest will be taken into account in NHS Board capital allocations through top slice arrangements. For new revenue financed schemes, representations will be made within the Spending Review to address the differential affordability impact of capital charges (depreciation) when compared to publicly funded schemes.

Governance

6. It is proposed that the Capital Strategy Group will remain in place to oversee and provide strategic direction to the implementation of the recommendations. Regular reports on implementation of the recommendations will be provided. The Group will also remain to consider the implications of Spending Review 2010.

Conclusion

7. The projected fiscal environment and the impact on the health programme of a small number of large projects requires a refocusing of the arrangements in place for the distribution of capital resources across NHSScotland. In making its recommendations, the Capital Strategy Group, through its wide representation has sought to put in safeguards and apply principles of fairness to changes to the planning, distribution and management of capital resources.

Action

8. NHSS Board Chief Executives and Directors of Finance are asked to share this letter with all staff involved in capital planning.

Further Information

9. Further information on the content of this letter can be obtained from Ian Waugh on [redacted] or [redacted].

Yours sincerely

[redacted]

John Matheson
Director of Health Finance

ANNEX A

CAPITAL STRATEGY GROUP –

REMIT & MEMBERSHIP

Remit

1. The remit of the Capital Planning Strategy Group (CSG) is to:

a) To consider approaches and make recommendations on the methodology for allocating and prioritising capital resources (including capital receipts) to NHSScotland having regard to:

- the strategic objectives of NHSScotland;
- the projected level of available resources;
- the maintenance and improvement of the NHSScotland asset base in support of service delivery;
- the delivery of strategic projects at national, regional and local level; and
- linkages to broader SG objectives and funding streams.

b) To review current arrangements for central capital budgets in light of the above issues;

c) To review current delegation arrangements for NHSScotland bodies in light of the above issues;

2. To provide an overview and advice to a Capital Planning Systems Sub Group which will:

a) consider options for systems and processes to support the planning, utilisation and control of capital resources

b) consider the appropriate linkages to asset management policies; and

3. It is envisaged that CSG will meet monthly for a six month period (business permitting) with the focus on items 1a, b and c within the main group

Membership

4. The initial membership of CSG is as follows:

Mr John Matheson, SGHD Director of Finance (Chair)
Mr Mike Baxter, Deputy Director Capital Planning and Asset Management
Ian Waugh, Head of Capital Planning (Secretariat)
Mr Douglas Griffin, Director of Finance, NHS Greater Glasgow and Clyde
Mrs Fiona Ramsay, Director of Finance, NHS Forth Valley
Mr Simon Belfer, Director of Finance, NHS National Services Scotland
Mr Craig Marriot, Director of Finance, NHS Dumfries and Galloway
Mr Ian Ross, Director of Strategic Projects, NHS Lanarkshire
Mr Iain Graham, Head of Capital Planning NHS Lothian
Mr Tom Steele, SFG Representative

ANNEX B

CAPITAL STRATEGY GROUP –

RECOMMENDATIONS ON KEY STRATEGIC ISSUES

1. At its meeting of 9 December 2009, the Chief Executives' Group received a presentation covering a range of capital related issues resulting from future projections on public finances beyond 2010-11. It was agreed that a "Capital Strategy Group" would be established to consider these issues and make recommendations.

2. The Group commenced work at the end of January and, through ongoing discussion has agreed a series of recommendations covering the key issues associated with the distribution and management of capital resources across NHSScotland.

3. This report summarises the agreed position of the Group and sets out a series of detailed recommendations.

Replacement of Arbuthnott formula based allocation

4. Currently the capital allocation formula is based on the Arbuthnott formula adjusted for cross boundary flows and top sliced by 10% for specialist services flows relating to Medical and Clinical Oncology, Neurology and Cardiothoracic Surgery. For all Island Boards an uplift is applied equivalent to the difference between their formula allocation and their planned minor work programmes. This methodology has been in place since 2002.

5. The Group have recommended that the target NRAC formula should replace Arbuthnott as a basis of the capital formula and that this should be adjusted for cross boundary flows.

6. The CSG have also considered whether there is a need to retain a specialist service top slice and what the basis of any specialist services top slice should be. The quantum of 10% has not been revisited since 2002 with the allocation rising from £15m in 2002-03 to £29.7m in 2010-11.

7. The CSG consider that the principle of a specialist services top slice is accepted but that further work is required to determine the quantum to be top sliced. This will be achieved by surveying the equipment held by Boards in respect of specialist services to establish the ongoing replacement requirements for the same.

8. Subject to the outcome of the spending review (and the approval by the Scottish Parliament of the annual budget), it is proposed to fix formula allocations for the period of each spending review.

The nature of expenditure to be supported by a formula based allocation

9. The CSG consider that the formula based allocation should provide funding to cover expenditure on routine medical equipment replacement, routine health and safety improvements and other improvements driven by statutory change, routine IM&T related improvements/upgrades, minor improvements/refurbishments/enhancements to buildings…i.e. all "locally driven" expenditure items below a Board's delegated expenditure limit.

10. The formula allocation would be expected to cover projects with a total capital value that are within the Board's delegated limit. Any new projects in excess of that delegated limit are outwith the scope of the formula and will be subject to bidding for specific project funding unless Boards decide to prioritise formula funding to support projects in excess of their delegated limit.

11. Boards will have discretion on the prioritisation of projects supported by the formula allocation but will be expected to demonstrate that they have undertaken appropriate risk assessments to decide on where and how their allocations are to be applied. This risk based approach will require to be demonstrated within a Board's Property and Asset Management Strategy.

12. In order to ensure resources are managed in the most effective manner in respect of backlog maintenance, indicative allocations of future capital for investment should be set out over a Spending Review period. This would help Boards undertake their risk assessment in a more structured approach.

13. There is support for the need for better information regarding management of the backlog maintenance costs on a risk based approach. The establishment of the new Property and Asset Management system will support Boards in managing their estate but should provide appropriate information to be viewed centrally. However, it is essential that Boards still require to make appropriate decisions based on their own risk assessments using nationally developed guidance.

The basis of establishing an initial quantum for allocation of formula

14. It is proposed that the formula allocation is initially based on the available budget less the sums identified for central budgets and contractual commitments of Boards to date. It is proposed that the expected quantum of the formula allocation will be set out for the spending review period in order to allow forward planning.

Treatment of receipts when considering the allocation of capital resources to Boards

15. A common problem is the accurate forecasting and timing of capital receipts. Processes are required to track key stages in generation of receipts and highlight risks associated with realising receipts. National processes to be further developed regarding tracking of receipts and their impact on the overall capital programme.

16. It was generally agreed that there needs to be the right incentivisation to generate receipts. There are four options considered by CSG. These are:

    - Boards should continue to receive full benefit as assets are disposed of (capital and revenue).

    - Create a central land bank to which all surplus assets would be notified and central responsibility is taken for the disposal of the land. This could then mean any income received from sales would be available to distribute on a national basis within the final agreed formula allocation.

    - The capital element of the receipt should accrue to SGHD and be used to support the overall capital programme while the revenue element should be left with the Health Board where the capital receipt arose.

    - As an extension of the third option it was suggested that any sum received above/below the net book value will require to be treated as revenue and be retained by the Board to improve the backlog maintenance position

17. In considering the above options it was recognised that where Boards retain the benefit of receipts there is often a timing problem where replacement facilities are required before surplus land can be sold. A brokerage mechanism would be required at national level to support such cases.

18. The CSG therefore propose that the third option be adopted where the capital element of the receipt should accrue to SGHD and be used to support the overall capital programme while the revenue element should be left with the Health Board where the capital receipt arose.

19. This would assist in spreading the risk associated with receipts across all Boards whilst retaining incentives locally and ensure that project funding was allocated on a priority basis rather than being skewed by the ability of individual Boards to generate receipts. The decision would rest with Boards regarding the application of revenue proceeds.

20. In such cases project specific funding could be allocated on the condition that all or a proportion is repaid within a particular time period from anticipated receipts. Clearly if such receipts are not realized then subsequent projects in other Board areas will be cancelled/ delayed.

Proposals for the basis of prioritising and allocating project specific funding (new approvals)

21. The process for approving projects will need to operate on a transitional basis given the flow through of existing projects over the next two to three years. It is recognised that the scope for new projects will be limited in the short to medium term.

22. Project proposals should be based on assessment against key and consistent criteria. Criteria such as “Invest to Save” should feature prominently and strategies, policies and objectives will need to be ranked to create a consistent decision making framework based on relative priority. Within project proposals there needs to be clear links to clinical strategies at national regional and local level. This would link to such issues as improvements in HEAT targets, avoidance of backlog maintenance, Shifting the Balance and where other key government targets can be met with clear measurables identified.

23. In order to deliver this process it is proposed that the Initial Agreement is further developed to incorporate a consistent basis of assessment and could be expanded/developed with stronger evaluation on measures/outcomes of the planned project.

24. It is proposed that the prioritisation exercise be conducted on a six monthly or annual basis for public capital funded projects with a call for Initial Agreement proposals. It is further proposed that the process be overseen by the SGHD Capital Investment Group but that for this purpose only, the CIG membership be expanded to include Service representation.

25. In order to ensure that priority cases are developed the CSG recommend that Initial Agreement proposals require to be assessed at Regional level before submission to CIG. Additional clearance procedures require to be developed for Special Board proposals.

26. In order to ensure that the prioritisation methodology is consistent with Government objectives it is proposed that the methodology be reviewed by CIG (with service representation) on an annual basis and that the decision making criteria and weightings be made available

Delegated Limits

27. Given the anticipated reduction in available capital and the reduced flexibility CSG propose that delegated limits be established on a stepped basis as for Special Boards. The proposed limits for Boards are attached as part of the tabulation at Annex c.

28. Approval and funding would therefore be allocated for projects whose value exceeds the delegated limit for the relevant Board except where Boards decide to prioritise projects in excess of their delegated limit from within their formula allocation.

Principles for the handling and allocation of central budgets

29. The Group considers that there should a small number of central budgets supporting very clear national priorities. In establishing such budgets more interaction is required in establishing and providing for the revenue consequences of such investment. For each programme there should be clear definition regarding whether national and local funding is complementary (e.g. matched funding) or exclusive.

30. The allocation of ring fenced money for equipment has been welcomed by Boards. It has supported planned programme replacements. However there is no reason why Boards again should not be able to develop a clear investment strategy for equipment using a risk assessment process. Whilst the allocation should be on a NRAC basis the Boards should be able to demonstrate how expenditure has been allocated and how decisions were reached. In light of the limited available capital one option is that equipment could be part of the Board's general formula allocation and it would be up to individual Boards to decide whether the risk lies more with investment in equipment or property. This again pushes the management of risk to individual Boards but they must still be able to demonstrate why particular investment decisions were made.

31. On radiotherapy equipment there will be a nationally defined and agreed replacement programme with clear parameters for planning, implementation and review. It is proposed that such proposals are developed and implemented by the Technical Sub Group of SRAG. Such proposals would be founded on the basis of establishing and implementing a programme consistent with the Spending Review Period.

32. It is suggested that handling central budgets should be via a mix of formula and bidding. Where applied on a formula basis the target NRAC based capital formula will be applied subject to any deminimus arrangements made for small and/ or islands Boards business cases, using same approach as applied to the proportion of the capital funding earmarked for Health Boards.

Handling funding for investment through revenue finance

33. The lack of available capital does mean that use of private finance must be an option for Boards to test. For new build stand alone projects in excess of £20m revenue finance will be tested. Hybrid financing involving public and revenue finance should also be tested. Revenue finance will be applied on a value for money basis.

34. For NHS Boards participating in the hub initiative, revenue finance will be tested for projects below £20m.

35. Representation will be made within SG on the differential affordability impact of private finance in relation to capital charges (depreciation).

36. There is a need to establish a maximum % of revenue budgets committed in Boards to Unitary payments to ensure a sustainable revenue position over the long term.

37. It is recognized that existing capital budgets contain long term commitments regarding the reversionary interest of existing PFI schemes. The capital cover for such commitments requires to be top sliced and ringfenced.

Conclusions

38. On the key questions asked the following conclusions can be drawn:

39. The use of target NRAC is supported with further analysis required to validate the top slicing for specialized services.

40. Consensus that the formula should support capitalised maintenance/ rolling replacement programmes and projects contained within Board delegated limits. Clear and consistent views that Boards should be utilising risk based approaches to prioritisation of expenditure supported by the formula and that this prioritisation should be locally controlled.

41. The quantum for capital formulas should be established after taking into account existing committed projects and central priorities.

42. That there is a need for incentives around the generation of capital receipts and for brokerage to be available recognizing the timing expenditure on replacement facilities and subsequent receipts for surplus assets.

43. That clear and consistent approaches are required to support prioritization of project funding. Suggestion also that the role of CIG should be assessed to have service input.

44. Stepped approach to delegated limits required recognizing different size of Boards and formula allocations.

45. There should be a small number of central budgets which should have clear priorities and could be distributed on formula or business case basis.

46. Difficulty identified regarding affordability given differential revenue impact following removal of cost of capital charge.

Recommendations

47. The Capital Strategy Group recommends that:

Capital Formula

a) Target NRAC should be used as the basis of the formula allocation adjusted for cross-boundary flows.

b) For Island Boards an “uplift” should be applied equivalent to the difference between their formula allocation and their planned minor work programmes (adjusted pro rata for upwards/downwards revisions to the national settlement).

c) A top slice adjustment for specialist services be retained but that further work, concentrated on the equipment held by Boards in respect of specialist services be surveyed and reported to CSG.

d) Formula capital should be used primarily to support routine capital expenditure and projects within Board delegated limits unless Boards decide to prioritise formula capital for projects in excess of their delegated limit.

e) New projects with a capital value exceeding Health Board’s delegated spending limit should be subject to a bid process for specific project funding, unless the Board propose to finance from within its formula capital. If the latter pertains, it should still require to submit a business case to CIG for approval to proceed, on the basis that the capital value of the project concerned is above the Board's approval limit as set by SGHD.

f) Formula allocation should be calculated on the annual available budget less the central programme budgets and in-year project specific commitments of all Boards.

g) Where practicable, the expected quantum of the formula allocation should be consistent with the Spending Review settlement period or the next three year period whichever is the longer in order to allow forward planning (subject to Scottish Parliament approval of the annual budget).

Capital Receipts

h) For those capital receipts not already identified as supporting projects beyond Outline Business Case approval the capital element of receipts should accrue to SGHD and be used to support the overall capital programme while the revenue element should be left with the Health Board where the capital receipt arose.

Project Approvals

i) A transitional process should be developed for the approval of projects over the next two to three years.

j) Project assessment criteria and weightings should be developed which incorporate factors such as 'invest to save' and take account of national, regional and local level strategies, policies and objectives.

k) The Initial Agreement should be developed to incorporate a consistent basis of assessment incorporating a stronger evaluation of the proposal's contribution to outcomes and measures thereof.

l) The prioritisation exercise should be conducted on a six monthly basis for publicly funded capital projects with a call for Initial Agreement proposals.

m) The prioritisation process should be overseen by the SGHD Capital Investment Group with membership expanded for this item to include Service representation.

n) Proposals for Initial Agreements should be assessed at regional level before submission to CIG. Specific clearance arrangements should be put in place in respect of Special Boards.

o) The project assessment methodology should be reviewed by CIG (with service representation) on an annual basis and the decision making criteria and weightings should be made available.

Delegated Limits

p) Delegated limits should be applied on a stepped basis as contained in Annex A

Central Budgets

q) The number of central budgets for national priorities should be small and well-defined. Such budgets, should they be accepted would clearly articulate the revenue consequences of the investment proposal.

r) The medical equipment budget should be allocated from within the base capital formula

s) The radiotherapy equipment budget should be based on an agreed national replacement programme with clear parameters for planning, implementation and review. The programme would be supported by the Technical Sub Group of the Scottish Radiotherapy Advisory Group.

t) Central budgets should be allocated by a mix of formula and a bidding process. Where applied on a formula basis the Target NRAC based capital formula will be applied subject to any de minimus arrangements made for small and/ or islands Boards business cases. This would include capital funding in support of the hub initiative

Revenue Financing

u) Representation should be made within SG on the differential affordability impact of revenue finance in relation to capital charges (depreciation)

v) Reversionary interest on existing PFI schemes to be taken into account in NHS Board capital allocations through top slice arrangements

w) The Capital Strategy Group remain in place to provide strategic oversight and also direction to the work of the Capital Systems Sub Group as it takes forward the development of systems and processes to support the above recommendations. The Group will also remain to consider the implications of Spending Review 2010.

ANNEX C

ILLUSTRATIVE ALLOCATION OF £150m VIA FORMULA

NHS Board	90% Allocation on NRAC share (£m)	10% Allocation from Specialist Services	Total Allocation (£m)	Final NRAC Adjusted Shares	Delegated Limit (£m)
Ayrshire & Arran	9.58		9.579	6.39%	1.5
Borders	2.58		2.581	1.72%	1.0
Dumfries & Galloway	3.94		3.942	2.63%	1.0
Fife	8.37		8.375	5.58%	1.5
Forth Valley	6.84		6.840	4.56%	1.5
Grampian	12.79	0.996	13.791	9.19%	3.0
Greater Glasgow	35.45	9.668	45.122	30.08%	5.0
Highland	8.21		8.214	5.48%	1.5
Lanarkshire	13.73		13.726	9.15%	3.0
Lothian	20.74	4.198	24.938	16.63%	5.0
Orkney	0.41		0.411	0.27%	1.0
Shetland	0.45		0.453	0.30%	1.0
Tayside	11.12	0.138	11.260	7.51%	3.0
Western Isles	0.77		0.769	0.51%	1.0
Total	**135**	**15**	**150**	**100%**	

ROYAL HOSPITAL FOR SICK CHILDREN – DELAY AND DELIVERY THROUGH REVENUE FINANCE

TOP LINE: **Scottish Government is fully committed to the delivery of the Royal Hospital for Sick Children in Edinburgh as soon as is possible**

KEY POINTS:

1. Argument 1 – The use of revenue finance will delay the delivery of the Royal Hospital for Sick Children

- UK Government has applied 36.5% cut in real terms over the CSR period, meaning difficult choices not only as part of this budget, but also for future budgets. The UK Government has cut Scotland's capital budget by more than a quarter in real terms next year. This is cutting too far, too fast.
- We are using every lever to maintain capital investment – through the NPD model, tax incremental financing and the National Housing Trust. These investments will protect jobs and services next year and in future years.
- We will minimise any delay on the delivery of the Sick Kids preparing for procurement as quickly as possible and by providing support to NHS Lothian through the Scottish Futures Trust

2. Argument 2 – Public Capital Funding secured for New South Glasgow Hospitals Project but not for Royal Hospital for Sick Children in Edinburgh

- The business case for the New South Glasgow Hospitals Project demonstrates that public capital represented better value for money than PFI and NPD (by £118.86m and £105.47m respectively).
- We wish to progress the Sick Kids in Edinburgh as quickly as possible and can do this most effectively through NPD.

3. Argument 3 – The Scottish Government are dependant on the use of revenue finance to support their investment programme

- For the first time Scotland has a clear and sustainable approach to NPD investment, to ensure affordability over the medium to long term.
- We are setting an additional 1% of future revenue budgets to support £2.5 billion of new capital investment.

4. Argument 4 The Scottish Government have not protected health spending

- In the current spending review period we have invested £1.676 billion in health capital, a 19.9% increase on the previous three year period.
- Excluding the £20m additional funding provided to support pandemic flu in 2010-11 the reduction in the net capital budget of £69.5m matches the consequential impact of the Department of Health Capital reduction.

SUMMARY OF ISSUE

36.5% real terms cut in capital funding mean that not all planned projects can proceed on planned timescales or using public capital. Within health, the net capital budget is £488.2m for 2011-12 and contains provision for the New South Glasgow Hospitals Project (£178.3m), legal commitments of circa £200m and maintenance/ replacement programmes of circa £110m. Whilst the projected costs of the RHSC project are projected to be £169.4m with £37.2m falling due in 2011-12, the main element of spend is £85m in 2012-13. This spike in expenditure is set against a background where after all of the actions already taken by the Scottish Government there is still an over commitment of circa £200m on the 2012-13 capital budget to be resolved. There is therefore no headroom to absorb such a large commitment without a radical reprioritisation of the whole capital budget.

NHS Lothian are in procurement for the RHSC and have appointed a Principal Supply Chain Partner (PSCP), BAM Construction, from the NHS National Framework "Frameworks Scotland" to deliver a final design proposal to support a Full Business Case for the RHSC. No construction contract has been signed and the PSCP will be paid for design development work undertaken. It is not clear what the implications of this decision will be for BAM Construction and its' supply chain members. Given the stage of detailed design we would propose that design development is completed and the design could be novated under an NPD procurement.

There is likely to be criticism over a delay in the project and the impact on the Principal Supply Chain Partner. There is also likely to be staff side concern regarding the extension of private finance on the ERI site. There may also be a negative reaction from charitable organisations who support the project and are fund raising to support the new building. In responding to these issues the use of revenue finance, and revenue support for unitary payments will give certainty over the delivery of the project and existing health policy is that Soft FM is excluded from NPD type projects. NHS Lothian are already pursuing a revenue finance solution for the Department of Clinical Neurosciences as a variation to the exiting PFI contract at Royal Infirmary of Edinburgh.

BACKGROUND

The need to build a replacement for the Sick Kids in Edinburgh was recommended by the expert Ministerial Advisory Group on child health, the Children and Young People's Health Support Group. The project will ensure that all acute inpatient children's services in Scotland will meet the gold standard of triple co-location of children, maternity and adult services. This complements the existing children's hospital in Dundee, the new children's hospital in Aberdeen and the new children's hospital development in Glasgow.

The Capital Investment Group approved the Outline Business Case on 15 August 2008 which allowed NHS Lothian to proceed with its preferred option to develop the new hospital on the Little France site using public capital, supported by university and endowment funding. A preferred bidder, BAM construction was appointed from the NHSScotland National Framework, Frameworks Scotland on 30 April 2009.

A full business case is being prepared by the NHS Board and was scheduled to be considered by the Capital Investment Group in January 2011 following completion of design and costing work with the construction partner. Even with a change in funding route it would be sensible to conclude detailed design work, sign off for which is expected by end of November 2010.

There have been a series of complex issues to resolve throughout the projects' development including revised car parking arrangements, land transactions and planning issues. NHS Lothian have been pressing hard to move the project forward and resolve these issues. A revised submission date of March 2011 has been confirmed for the Full Business Case within the last few days, subject to planning approval.

NHS Lothian advise that the capital cost of the project is £169.4m including enabling work and equipment. The scheduled start on site was expected to be March 2011 and practical completion by end of September 2013. Following commissioning a fully operational date of first half 2014 has been reported to the Projects' Steering Group on 12 November 2011. These timescales are also dependent upon successful negotiations with Consort, operators of the existing PFI contract regarding undertaking of enabling works.

This timetable would have been challenging at best given the revised submission date for the full business case and the requirement for other NHS Boards to sign up to the revenue consequences of the project. It is unlikely that construction could have commenced before April 2011 at earliest.

In moving to a NPD finance route the current procurement will require to be halted and a new procurement commenced as soon as possible. The Scottish Futures Trust have been requested to prepare a proposal, due within the next two days, on how it could support NHS Lothian to develop a NPD procurement strategy as soon as possible. SFT have been given a clear brief to develop a proposal and strategy that minimises any delay in the delivery of the project. It is expected that, with appropriate input from both SFT and NHS Lothian that a new procurement strategy could be ready within 4-6 weeks. An assessment of revised timescales would be possible at that point.

Contact Details

Mike Baxter
Ext [redacted]
Mobile [redacted]

From: Kinnear N (Norman)
To: Sansbury, Jackie
Cc: Baxter M (Mike) (Health)
Subject: RE: DCN
Date: 11 January 2011 13:37:00

Jackie, Before we get back to you it would be helpful to know whether you saw the email and document I sent to Iain Graham following considerable time Mike and I had spent on an earlier draft.

Norman

From: Sansbury, Jackie [redacted]
Sent: 11 January 2011 12:07
To: Kinnear N (Norman)
Cc: Goldsmith, Susan; Graham, Iain; Currie, Brian
Subject: DCN

Norman hi, thanks for the chat earlier on today. I just thought it would be helpful to confirm what we discussed given Susan asnd I are taking a paper to F and PR tomorrow re the above.

The position of NHS Lothian regarding DCN is that in Nov 2009 NHS Lothian approved an OBC for DCN identifying a joint build with RHSC funded through capital as our preferred option. At that time Mike asked us by email not to submit the business chase to CIG, indicating there was no capital available.

The joint build remains our preferred option clinically but you have advised that in order for us to proceed we must now redo the financial modelling demonstrating the costs under NPD (joint build with RHSC) and PFI (at the end of the wrad arc) with some sort of alteration to the PFI contract.

This will not only delay the project due to the requirement to complete the modelling but on reflection this will also require some funding support from you for advisors as the posts can no longer be capitalised. I do know however Susan has already written to Mike re financial support for advisors.

You agreed to run this past Mike so I could report your position on this at the meeting tomorrow. I am very grateful for your continued support. I also attach the f and pr paper for your info.

Best wishes

Jackie <<RHSC DCN Update Dec 2010 v8.doc>>

Jackie Sansbury

Chief Operating Officer

Lothian University Hospitals Division

Royal Infirmary of Edinburgh

51 Little France Crescent

Edinburgh

EH16 4SA

Tel: [redacted]

Mobile: [redacted]

Email: jackie.sansbury[redacted]

From: Halcrow, Fiona
To: Cosens, Sorrel; Mackenzie, Janice
Subject: RE: Single rooms appendix

Hi - with further reading - the RHSC paper on single bed room accommodation is sited as an appendix in this report
Fiona

Fiona Halcrow
RHSC Re-Provision Project Manager
Royal Hospital for Sick Children
Sciennes Road
Edinburgh
EH9 1LF

Telephone: [redacted]
Fax: [redacted]
Mobile: [redacted]

From: Cosens, Sorrel
Sent: 26 October 2011 09:30
To: Mackenzie, Janice; Halcrow, Fiona
Subject: RE: Single rooms appendix

Hi
The only reference needed now is Scottish Government (2008); *Single Room Provision Steering Group Report* as it supersedes all others.
S

From: Mackenzie, Janice
Sent: 25 October 2011 17:38
To: Halcrow, Fiona
Cc: Cosens, Sorrel
Subject: RE:

Hi Fiona
Yes happy to discuss further on Thursday.
Janice

From: Halcrow, Fiona
Sent: 25 October 2011 13:33
To: Mackenzie, Janice
Cc: Cosens, Sorrel
Subject: RE:

Janice
I have entered a footnote stating this paper was prepared in 2007 and that the findings remain robust. However, we mention in this paper 'draft report Scottish Nurse Directors etc ' ..
There has been other reports since then - one being - Single Room Provision Steering Group Report October 2008. Should we be mentioning this?
Janice, you next provision day is Thursday - can we sort this out then. Sorrels deadline is Friday, so lets make ours Thursday.
BW
Fiona

Fiona Halcrow
RHSC Re-Provision Project Manager
Royal Hospital for Sick Children
Sciennes Road

Edinburgh
EH9 1LF

Telephone: [redacted]
Fax: [redacted]
Mobile: [redacted]

From: Mackenzie, Janice
Sent: 25 October 2011 07:49
To: Halcrow, Fiona
Cc: Cosens, Sorrel
Subject: RE:

Hi Fiona
This paper was written in Sept 2007 and whilst it is 4 years old, the views expressed by staff at that time overall have not changed. We have not done further consultation with children, young people and their families on this issue.
I think the paper is still relevant as we would still want the ability to cohort patient groups. I would suggest that the date the paper was written is acknowledged and if necessary we can say that the clinical staff feedback remains the same.
Happy to discuss further.
Janice

From: Halcrow, Fiona
Sent: 24 October 2011 11:19
To: Mackenzie, Janice
Subject:

Janice

I've met with Sorrel this morning with regard to a few items in the joint OBC. Can we discuss the below and update so that we have reviewed and considered this all still stands in 2011. We need to do this, this week. Fiona

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SECTION 6: FUTURE SERVICE PROVISION

Appendix 6.3

6.3 Single Room Accommodation Report

Introduction

This paper will provide information on the issue of single rooms and bed bays within the proposed new Children & Young People's Hospital in Edinburgh. A recent draft Report 'Single Room Provision in Scotland', produced by NHS Scotland on behalf of the Scottish Executive Nurse Directors Group (March 2007) proposes that all new hospital builds should provide a 100% single room accommodation. This recommendation was made following consultation with patients and nursing staff, however this does not appear to have specifically involved consultation with children, young people and their families and the nursing staff caring for this patient group.

Consultation with Children, Young People & their Families

As part of the Reprovision Project to replace the Royal Hospital for Sick Children in Edinburgh, a number of consultation initiatives have taken place. One of the questions that was asked was:
'Should the patient areas have single rooms or rooms of 4/6 beds or a mixture of both?'

Responses

A wide range of groups as detailed below completed questionnaires: -
Contact a Family, a UK wide Charity providing advice, information and support to the

parent of all disabled children no matter what their disability and health condition, sent questionnaires in June 2007 to their Local Co-ordinators and parent members from across Scotland. Through Contact a Family links some questionnaires were also sent to parent members of 'One Parent Families' a UK charity dedicated to providing information and advocacy to lone parents. Of the 47 completed questionnaires, 39 respondents (83%) stated that the wards should have a mixture of both and only 5 (11%) supported all single rooms.

At the annual Sick Kids Friends Foundation Street Fair in May 2007, 'Roving Reporters' randomly selected adults and children who were attending. Of the 33 questionnaires completed, 20 (61%) respondents were in favour of a mixture of both and only 2 (6%) respondents felt it should be all single rooms.

The Hospital and Outreach Teaching Service in June 2007 asked children and young people to complete one of the questionnaires.

All of the children who responded were taken from the following groups: -

Appendix 6.3 Young people sick at home

- Young mums'/pregnant schoolgirls
- Gypsy/travellers
- Looked after and accommodated children/young people
- Children and Young people with mental health difficulties in Forteviot and Young Person's Unit.
- Children/young people excluded from school.
- Children experiencing difficulty at school
- Young people going through the criminal justice system

Of the 74 questionnaires completed, 41 (55%) felt that the patient areas should be single rooms and 22 (30%) supported a mixture of both. 50 (68%) of the respondents were 12 years and over.

In June 2007 the Looked After Children Nurses asked children and young people who are accommodated (foster care, residential and secure units) for their views. 12 responded of which 9 (75%) were in favour of a mixture of both and 2 (17%) felt it should be all single rooms.

Also at a consultation event in March 2007 for Young People who currently attend the hospital they said that they wanted to have the choice of a single room or bed bay.

Overall from the feedback we have received to date it is being proposed that there will be a minimum of 50% single room accommodation for patients. However it is important to note that the single room accommodation requires to have en-suite facilities. There should also of sufficient space for one parent to sleep overnight with the child/young person.

Clinical Staff Feedback

Currently children and young people are allocated single rooms prioritised on the following criteria: -

- Infection requiring isolation
- Mothers who are breastfeeding
- Terminally ill
- Adolescents

It is acknowledged that currently there are not sufficient single rooms within the existing hospital.

Not all parents will stay with their child overnight or are here all the time during the day. Children and many young people often feel very isolated and alone when they are in cubicles and enjoy the social interaction of being in a ward area beside other children.

Appendix 6.3

In addition younger children and babies, unlike adults, are not able to use nurse call systems and therefore observation of them is more difficult if all were to be nursed in single rooms.

Children as part of their development require social interaction and for those who are unable to mobilise and are confined to their bed and therefore not able to use the playroom, benefit from being nursed beside other children. This is a particular issue for children who are in hospital for a very long time.
100% single rooms would compromise the management of groups of babies and young children with the same infection e.g. bronchiolitis.
At a recent meeting of senior nurses across the U.K (Association of Chief Children's Nurses) there was discussion about whether there should be 100% cubicles and this was not supported, as it is recognised that children find great comfort from sharing with others, especially when their parents are not with them.
It was recognised that many adolescents would wish to be in a single room for privacy, however equally many of them also wanted to share and that consideration needs to be given in relation to segregation of male and female patients.
In addition it was felt that having a 100% single rooms would require higher patient: nurse staffing ratios because of the dependence of babies and young children on nursing staff, which is different to the dependence and support required by adult patients.

INDEPENDENT DESIGN REVIEW BY SCOTTISH FUTURES TRUST
ACTION PLAN AT 29 NOVEMBER 2011

NO	Recommendation[1]	Action/Current Situation	Lead By	Complete

1	**Links between the RHSC/DCN and the existing Royal Infirmary**
	
	A detailed specification of the requirements of the linking buildings between the new build and the existing RIE should be prepared, outlining the number and types of patient and staff journeys that will take place, both on first opening the building and as can be foreseen in the future. The termination points of the corridors in RIE and the routes to lifts and stairs should be identified and the design should avoid routes transiting clinical areas which are not served by the link or which are sensitive patient management areas. Other physical links such as pneumatic tube and IT links should also be carefully specified.
		Linking Buildings
		
		• Design Brief / Output specification to be prepared detailing:
		  ○ No Pt Journeys
		  ○ No Staff Journeys
		Expected on opening and 5 years post commissioning
		
		• 1:200 Drawings to show termination points of the corridors in the RIE
		
		• 1:200 Drawings to show routes to lifts and stairs in RIE, avoiding transiting clinical areas
		
		• PTS physical links to RIE to be shown. The number of PTS stations and locations identified 16 Jan 2012 and forwarded to Technical Advisors.
			AMcD
			FH
				March 2012
				
				Feb 2012
				
				Feb 2012

2	**Planning for Future Change**	Areas that may require adaptation or expansion in the future include:	FH GG	March 2012

[1] Recommendation summary only provided in action template

NO	Recommendation[1]	Action/Current Situation	Lead By	Complete
	Any elements of the building that are likely to require adaptation or expansion in the future should be detailed within the output specifications.	• Radiology • Theatres The detail will be captured in the clinical out put based specifications		
3	**Clinical Planning** The functional units for out-patients and therapies require to be under-written by a capacity-modelling exercise similar to the Bed Modelling Exercise to provide certainty that the departments are sized correctly.	To undertake an OPD/Therapies capacity modelling exercise for both DCN and RHSC to determine the size of planned departments are correct.	FH/DS	Jan 2012
4	**Clinical Planning** Add detail to specifications in the Departmental Design Briefs indicating what output activities are required to be delivered from all parts of the facilities.	Patient/Staff/Carers/Family average numbers/activities to be added to design briefs that are missing this information to ensure the appropriate space is provided This information will now be captured in the clinical out put based specifications	FH/JMacK/AWJS	March 2012
5	**Space Planning – In-Patient Beds and Ward Planning** Review the current out-turn percentage of single rooms within	Review of single room		

NO	Recommendation[1]	Action/Current Situation	Lead By	Complete
	the SoA as it is less than the stated target. Record the rationale for the proportion of single rooms within the design brief to assist bidding teams in understanding the derogation from guidance.	accommodation within the RHSCE has been undertaken in tandem with the recent Bed Modelling review. The ratio of single bed provision remains. Short paper written explaining rationale on decision prepared. The rationale for the proportion of single rooms to be included within the clinical out put based specification.	FH/JMacK/AJWS	Complete
6	**Space Planning – Bedrooms and en-suite areas** Test the feasibility of the briefed areas for bedrooms/ensuites at 1:50 scale in the context of a typical ward plan to ensure the designed areas do not exceed the assumptions in the schedule of accommodation and that they provide adequate functionality.	Following further discussion with the Technical Advisors and Capita Health Care Planner the 'single room' has been increased to 17 sqm. Generic and Key Rooms being tested at the 1:50 scale design to ensure functionality. Information has been obtained from Glasgow, Yorkhill, Project with regard to their single room accommodation mock up study. This is being further tested in Edinburgh.	NMcL NMcL	Complete March 2012
7	**Ward Planning** Test the distribution of support accommodation within a run of	Distribution of support accommodation within a run of	NMcL/JMacK	Feb 2012

NO	Recommendation[1]	Action/Current Situation	Lead By	Complete
	flexible beds on a ward floor plan at 1:200 to ensure the bed distribution is sufficiently flexible to deliver the utilisation assumptions and that the support accommodation is not over-specified.	flexible beds on a ward plan at 1:200 being assessed at the 1:200 Scheme Design stage. The distribution of support accommodation has been assessed at 1.200 scheme design phase (internally NHSL and by the Technical Advisors FM) and amendments made where relevant.		Complete
8	**Emergency Department**			
	1. Consider modelling projected activity beyond 2013	• RHSCE Emergency Department activity to be projected beyond 2013 to ensure overall space allowance is correct. RHSC ED Activity Modelled up to 2017. Average annual activity expected to be 50,000.00 and should plateau. Further activity scoping up to 2021 currently being undertaken	FH/DS FH/JMacK/AJWS	Complete
	2. Provide more detail within the brief on intended operational policies and patient flows within the department.	• More detail to be added to brief on the intended operational procedures and patient flows within the department (the 1:200 Scheme Design is currently determining the patient and staff flow).	FH/PL	March 2012
	3. Review the brief for the Emergency Department in terms of staff rest rooms, offices, size of staff changing, storage, waiting, staff seminar/study areas and indicate within the	• Clinical Output Based Specification will provide detail and assist the bidding teams.	FH/NMcL	March 2012

NO	Recommendation[1]	Action/Current Situation	Lead By	Complete
	design brief where these are to be provided elsewhere in **RIE** to assist bidding teams in understanding the requirements. 4. Resolve the issue of the Paediatric outpatient department not being adjacent to the Emergency department for use in a Major Incident as currently described in the design brief.	• The issue surrounding the OPD not being adjacent to the ED with regard to Major Incident planning has been resolved. An area identified in the adjacent Paediatric Acute Receiving Ward has been identified.		Complete
9	**Out Patients Department**			
	1. Provide more detail within the design brief on the operational policies for the out-patient areas. 2. Consider standardised consulting/exam and treatment rooms to provide maximum opportunity for the introduction of new methods of treatments and specialist clinical staff.	• Detail of procedures to be carried out within the OPD's to be included in clinical out put based specification. • Consultant Examination and Treatment Rooms all a standardised size.	FH/JMacK	March 2012 Complete
10	**Therapies**			
	Provide more information on how the Therapy departments are to operate, for example, how patients are to be received, logged into the system and how the therapist is alerted to their arrival. Also detail what the intended purpose of each clinical room is and what large items of equipment each will contain.	• Clinical Out Put Based Specification brief to include operational policies. Function of each room to be detailed and items of large equipment within.	FH/Therapy Team	March 2012

NO	Recommendation[1]	Action/Current Situation	Lead By	Complete
11	**Clinical Space Planning Generally** Identify key clinical rooms – likely to be 15-20 different types of room in total and provide an indicative 1:50 layout (straight from ADB or even in sketch form) in order to under-write the proposed square metre area for each room. Utilise these standard areas throughout the schedule of accommodation	• Generic (29 Rooms) and Key Rooms (75 Rooms) being drawing at the 1:50 scale design.	NMcL	March 2012
12	**Support Services Planning** Undertake an option appraisal to determine the optimum catering methodology for patient and non-patient catering to deliver best value for money.	Non-financial options appraisal of the catering methodology options completed and reported to the Director of Facilities on 13 January 2012. FM presentation planned for Project Steering Board 10 February 2012.	SC/GC	Feb 2012
13	**Support Services Planning** To ensure that best value for money will be delivered, the Board may wish to review the derivation of the scheduled areas and to record more detail on the proposed operation of the various areas. This will assist the design teams in understanding how the detailed design should be approached.	Facilities Management Work Stream operational and developing out put specifications. 1:200 Scheme Design meetings progressing and determining functional operational layouts to service building.	SC/GG	March 2012
14	**Departmental Circulation Allowance** The Board may wish to review this element with its technical	Circulation allowance continually being reviewed with Technical	NMcL	On-going

NO	Recommendation[1]	Action/Current Situation	Lead By	Complete
	advisors and healthcare planners to be confident the departments can be designed within the target areas.	Advisors i.e. 1:200 Scheme Design and 1:50 Key Rooms/Generic Rooms, to ensure operational functionality and to meet infection control guidance.		March 2012
15	**Net to Gross Areas** The allowance for communication and plant within the current NHSL schedule is 38%. This is higher than the standard pre-design range assumption of 24%-35% 1. NHSL need to continue to target reduction in the figure for main corridor communication, lifts, stairs and plant by value engineering of the developing design. 2. NHSL to check whether Glasgow Southern General has a separate energy centre or whether the plant rooms are integrated into the building which could explain the higher 38.3%	The Technical Advisors have produced a report 'Plant Communication Allowance Analysis – Technical Advisory Paper – Nov 2011', This report provides information and justification with regard to the allowance for communication and plant in this building and has benchmarked with other new build programmes in the UK. This will be further reviewed on the completion of the 1.200 scheme design drawings.	BC/NMcL	Feb 2012
16	**Reference Design** 1. Provide clinical planning diagrams now to determine the communication and circulation strategy as well as department adjacencies. 2. Resolve the circulation strategy within the Reference Design. 3. Match the adjacency matrix to the developed plan	• 1:200 Scheme Design drawings now available for each department within building • Circulation Strategy as action point 14 • Adjacency matrix to be updated	FH NMcL FH	March 2012 See above Feb 2012

NO	Recommendation[1]	Action/Current Situation	Lead By	Complete
		to reflect 'signed off' 1:200 drawings		

17	**Reference Design**
	
	To provide as much detail as possible on the site diagram including the definition of the following elements:- pedestrian access to both services; public transport routes made clear, detailed ramps and turning circles for the basement; vehicle traffic routes to be well-segregated from pedestrian walkways and entrances.
		• Much detail provided in the projects CEC Planning in Principle application.
		• Site Traffic Transport Strategy
		• 1:200 Scheme Design Drawings
		  o Hospital Main Entrances detailing pedestrian access to both services
		  o Basement – detailing turning circles and ramps
			RDT Project Team	Complete

18	**Reference Design** The departmental planning at 1:200 scale to be well-resolved prior to issue within tender documentation.	• 1:200 Scheme Design to be signed off end at the end of January 2012	NMcL/FH	March 2012
19	**Design Quality and Design Output Specifications** Provide within the brief an indication of the Board's aspirations towards the required quality of the design. This may be by a Design Statement similar to that recommended by Architecture and Design Scotland including an indication	• The Project Initiation Plan application document submitted to City of Edinburgh Council, planning department details NHSL Board aspirations towards the required quality of	JMacK/AJWS	March 2012

NO	Recommendation[1]	Action/Current Situation	Lead By	Complete
	of "What success looks like" and detailing of the non-negotiables for patients, staff and relatives.	the design.		
20	1. Post Financial Close NPD Co design development fees included at 10% by NHSL which are considered higher than other projects benchmarked. 2. Review the Risk Register as the design develops and reduce accordingly as risk are mitigated and costs become more certain.	1. Ernst and Young have prepared an explanation of overall design fee. This has been reviewed again with NHSL Financial Team. 2. AECOM setting up Risk Register review	BC BC	March 2012 March 2012
	3. Review design shape, specification and elemental cost plan against overall cost per square metre as the design develops during the next stage 4. Gross to Net floor area – target communications and plant area reduction and measure against South Glasgow Hospital with regard to the energy centre	3. TA to undertake cost analysis on communication of 1.200's 4. Communication Allowance Analysis – Technical Advisory Paper – Nov 2011', this report provides information and justification with regard to the allowance for communication and plant in this building and has benchmarked with other new build programmes in the UK. This will be further reviewed on completion of the 1.200 scheme design.	BC BC	Feb 2012 Feb 2012

Rationale for Proportion of Single Rooms within Children's Wards in New Build

In reaching the decision of the proportion of single rooms the Reprovision Team along with clinical staff took account of the following:-

- children and young people's feedback
- clinical opinion
- reviewing current single provision and where this needed to increase as recognised that currently not sufficient number of single rooms especially within some ward areas which requires 'boarding' of patients
- seeking views from other children's hospitals
- increase in age range to 16th birthday

The Scottish Government; CEL 48 (2008) and CEL 27 (2010) on *Provision of Single Room Accommodation and Bed Spacing* is targeted at adult services and there is a recognition that the needs of children and young people are different and NHS Lothian as part of the Scottish Government's consultation of single room accommodation submitted evidence to support not having 100% single rooms in children's inpatient areas and this was accepted.

The table belows outlines the proportion of single rooms as agreed by the Children's Clinical Management Team and UHD Senior Management Team as per the agreed bed model for the new hospital.

Specialty / Department	**Number of beds**		**% in single rooms**
	To build	**To open in 2016**	
Paediatric Acute Receiving and Assessment Unit	34	26	65%
Surgical / Medical / Neurosciences	64	63	47%
Oncology	10	9	100%
Critical Care	24	24	42%
Child and Adolescent Mental Health	12	12	100%
Total inpatients beds	**144**	**134**	**58%**
Day Case Beds	22	22	-
Total bed spaces	**166**	**156**	-

There are a number of reasons for not having 100% single rooms within the Children's Inpatient Wards of the new build which are detailed below:-

- children, especially younger children, feel isolated and alone when in single rooms and this is further compounded if parents are not resident
- children as part of their development need social interaction with other children as this is more difficult to achieve if in a single room

- younger children and babies, unlike adults, are not able to use nurse call systems and therefore observation of them is more difficult if nursed in single rooms
- hospital acquired infection rates amongst children and young people are significantly lower than that of adults
- 100% single rooms would compromise the management of groups of babies and young children with the same infection e.g. bronchiolitis. Ability to cohort this group of patients allows for greater observation and patient safety
- a combination of single rooms and 4 bedded bays gives greater flexibility
- whilst there is an issue of mixed sex accommodation this is within the adolescent age group and to address this there are dedicated adolescent rooms within wards based on activity projections. The use of 4 bedded bays offers ability to have age segregation e.g. babies and toddlers separate from over 5s

Janice MacKenzie
Clinical Director
RHSC + DCN Reprovision

January 2012 ver 1

Rationale for request for 2 x 4 bed wards and 16 isolation/single bedrooms and en-suites within the new DCN Acute Care Ward

This summary report sets out the rationale for the number of isolation/single bedrooms and en-suites for patient accommodation to be provided within the new DCN Acute Care Ward in the new build. (See Table 1 below).

Table 2 outlines the patient cohort expected to be treated in this ward.

The DCN Acute Care ward will provide care for emergency admissions and patients requiring intensive observation and/or monitoring. All the beds in this ward are level 1 beds.

Table 1. Rationale for number of single bedroom and en-suites to be provided within the DCN Acute Care Ward

Total No of Beds	Single Bed Cubicle	% Single Room	Isolation room	Open Plan Bay	En-suite, Wheelchair accessible WC, Shower & Wash	Assist/ Shower Room	WC – WHC A	Rationale The inclusion of 2 x 4 bed bays within this new unit is to ensure:
24	15	66.6%	1	2 x 4 bed	16	2	2	The provision of 2 x 4 bedded bays within the acute care area would be appropriate for the patients who would benefit from invasive monitoring following major or complex surgery and neuro radiology invasive procedures. Deterioration in neuroscience patients can be rapid and catastrophic and intensive close observation is essential for early

								detection. This is more easily achieved in a 4 bedded area. In some cases patient safety could be compromised by the use of invasive monitoring in single room accommodation. Patients undergoing neuroradiological invasive procedure may be given large doses of anti platelet medication which can significantly increase the risk of post procedure haemorrhage – close observation of the patient and the femoral sheath site is required. The provision of 16 beds in single room accommodation will improve the patient experience and contribute to a reduction in hospital acquired infection. All bed spaces are 26m^2 and have hand wash basin at each entry point However for a small number of patients who require closer observation the delivery of safe patient care will be enhanced by the

								provision of 2 x 4 bedded areas. • Maximise staff support – junior staff can look after a patient in an open bedded bay if the nurse in the next bay is more experienced. This makes best use of the unit skill mix and optimises training opportunities for more junior nurses whilst utilising the skills they have.

Table 2 types of patients needing cared for in level one area

Post coiling	Post operative observations increasing from 1/2 to 4 hourly. Arterial line
External Ventricular Drains / lumbar drains,	1 hourly neurological observations, drain checks, 1-4hourly TPRBP
Head injury/Subarachnoid haemorrhage	1-4 hourly neurological observations and vital signs.
Blocked shunt	1-4 hourly neurological observations and vital signs.
Chronic subdural haemorrhage (GCS <14)	1-4 hourly neurological observations and vital signs.
Anterior Cervical Decompression & Fusion	Post operative observations increasing form 1 to 4 hourly. Arterial line
Biopsy of Space occupying lesion	Post operative observations increasing form 1 to 4 hourly. Arterial line
Tracheostomy	Oxygen saturations. Frequent neurological observations and vital signs (depending on stability) Arterial line
Deteriorating patient –with stable GCS i.e sepsis	1 hourly vitals/neurological observations. O2 Saturations. Arterial line, Central line
GCS < 11 (ACUTE) clinically significant drop in GCS (< 2 points)	½ to 1 hourly neurological observations and vital signs

	Arterial line, Central line
Patients requiring >50% oxygen	Arterial line, O2 saturations. Vitals, neurological observations
Traction or cervical injury	Arterial line, O2 Saturations/vital signs
Pre existing co morbidities	1 hourly vitals/neurological observations. O2 Saturations. Arterial line, Central line
Post elective embolisation	Arterial line
Transphenoidal hypophysectomy	Arterial line Drain- see above.
Complex Back surgery	Arterial line.(depends on what the underlying medical conditions are)
Craniotomy	Post operative observations increasing from 1/2 to 4 hourly. Arterial line

From: Jackie.Sansbury[redacted]
To: Baxter M (Mike)[redacted]
Subject: JUSTIFICATION FOR DERROGATION FROM SINGLE BED GUIDANCE
Date: 15 July 2013 13:32:31
Attachments: Rationale for single rooms July 2013 (final).doc

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Dear Mike, please find enclosed a short paper outlining the justification for requesting a derogation to the existing single bed guidance.
As you know the OBC for the new children' and DCN hospital included provision of 77 neuroscience beds all of which were in single room accommodation.
The configuration was 19 neurology ward beds
24 neurosurgery ward bed
24 level 1 beds for acute assessment and immediate post op care prior to transfer to the inpatient wards with a planned LOS likely to be up to 24/48 hours.
(11 level 2 and 3 beds in RIE critical Care Unit).
The area we would wish to make changes to is the DCN Acute Care ward.
The clinicians wish to have 2 four bed wards in this are to allow for greater observation of agitated patients. The document gives details of the case mix and required observations.
As you know this change was supported by David Farquharson and Melanie Hornett.
It would be very helpful to have Harry's position on this soon as this is an alteration to the reference design and has to be communicated to Bidders.
I am grateful to you for your help.
I am also happy to chat to Harry if at all helpful.
Best wishes
Jackie

Jackie Sansbury
Head of Redesign and Commissioning
RHSC + DCN - Little France
NHS Lothian
56 Canaan Lane
Edinburgh
EH10 4SG
Tel:[redacted]
Mobile:[redacted]
Email: jackie.sansbury[redacted]

********** **********

****

From: Mike.Baxte[redacted]
To: Sansbury, Jackie
Cc: Sizeland B (Bettina); Summers Y (Yvonne); Summers M (Malcolm)
Subject: RE: JUSTIFICATION FOR DERROGATION FROM SINGLE BED GUIDANCE
Date: 16 July 2013 09:13:35
Attachments: JUSTIFICATION FOR DERROGATION FROM SINGLE BED GUIDANCE.msg

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Dear Jackie
I can confirm that I have consulted the Chief Medical Officer on this matter and he has confirmed that he is satisfied with the rationale underpinning the derogation request. The request is therefore approved.
Kind regards
Mike Baxter
Deputy Director (Capital and Facilities)
Directorate of Finance, eHealth and Pharmaceuticals
Scottish Government Health and Social Care Directorates
Tel [redacted]
Mob [redacted]

From: Sansbury, Jackie[redacted]
Sent: 15 July 2013 13:32
To: Baxter M (Mike) (Health)
Subject: JUSTIFICATION FOR DERROGATION FROM SINGLE BED GUIDANCE
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I am grateful to you for your help.
I am also happy to chat to Harry if at all helpful.
Best wishes
Jackie
Jackie Sansbury
Head of Redesign and Commissioning
RHSC + DCN - Little France
NHS Lothian
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Anna Falconer

From: Burns H (Harry) Dr (Chief Medical Officer)
Sent: 16 July 2013 09:10
To: Baxter M (Mike) (Health)
Subject: RE: Immediate: FW: Justification for Derogation from Single Bed Guidance

Mike

The clinical arguments seem perfectly fair to me and I would support the case

Harry

From: Stuart ER (Eileen)
Sent: 15 July 2013 15:51
To: Burns H (Harry) Dr (Chief Medical Officer) [redacted]
Subject: Immediate: FW: Justification for Derogation from Single Bed Guidance

CMO, David Farquharson is calling you tomorrow at 8.30 about single rooms in DCN Unit. Do you need briefing? Eileen

---

From: McGowan M (Mariane) **On Behalf Of** Baxter M (Mike) (Health)
Sent: 15 July 2013 15:15
To: Burns H (Harry) Dr (Chief Medical Officer); Stuart ER (Eileen)
Subject: Justification for Derogation from Single Bed Guidance

Dear colleagues

Can you please consider the case of a derogation from 100% single rooms.

Please respond to Mike Baxter.

Thanks

Mariane McGowan/Personal Secretary to Mike Baxter
Capital and Facilities
Area BR
St Andrew's House
Edinburgh
EH1 3DG

☎ tel: [redacted]
fax: [redacted]
email: [redacted]
Mike

From: Sansbury, Jackie [redacted]
Sent: 15 July 2013 13:32
To: Baxter M (Mike) (Health)
Subject: JUSTIFICATION FOR DERROGATION FROM SINGLE BED GUIDANCE

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I am also happy to chat to Harry if at all helpful.
Best wishes

Jackie

Jackie Sansbury
Head of Redesign and Commissioning
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EH10 4SG
Tel: [redacted]
Mobile: [redacted]
Email:_[redacted]

From: Harry.Burns [redacted]
To: Sansbury, Jackie
Subject: RE: NEUROSCIENCES - Potential derogation from single room guidance
Date: 16 July 2013 09:12:49

Jackie
I've already been in touch with Mike Baxter to let him know of my support for the clinical arguments
Harry

From: PS/CMO
Sent: 16 July 2013 09:07
To: Burns H (Harry) Dr (Chief Medical Officer)
Subject: FW: NEUROSCIENCES - Potential derogation from single room guidance

From: Sansbury, Jackie [redacted]
Sent: 16 July 2013 09:05
To: PS/CMO
Subject: NEUROSCIENCES - Potential derogation from single room guidance
Dear Sir Harry, I gather David Farquharson spoke with you yesterday or Friday regarding our request to include two 4 bed bays in the acute care and assessment ward in the new hospital in Edinburgh.
I submitted a table to Mike Baxter outlining the likely case mix of patients who would be in the ward and the observations they would require. I attach it again for your ease.
I also spoke again today to Prof Siddarthan Chandran who leads the redesign group in DCN along with James Steers. He (and James) strongly supports this and he wanted me to stress how much clinical buy in there is to this change. He feels he has the full support of the Consultant and Nursing staff.
Is there any further information you need from us?
Regards
Jackie

Jackie Sansbury
Head of Redesign and Commissioning
RHSC + DCN - Little France
NHS Lothian
56 Canaan Lane
Edinburgh
EH10 4SG
Tel: [redacted]
Mobile: [redacted]
Email: [redacted]

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Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Riaghaltas na h-Alba.

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Scottish Hospitals Inquiry

Hearing Commencing 9 May 2022

Bundle 4 - Single Bed Derogations