SCOTTISH HOSPITALS INQUIRY

CLOSING SUBMISSIONS CHAPTER ONE

On behalf of

MOLLY AND JOHN CUDDIHY

INTRODUCTION

The Chair to the Inquiry has requested that Core Participants identify, in so far as they differ from Counsel to the Inquiry, what themes have emerged from the evidence which are relevant to the terms of Reference. The Cuddihys observe that whilst it is correct to describe the evidence provided in the first chapter as perceptions of patients and their families there is external evidence to robustly support the vast majority of those perceptions, which we believe will become evident as the Inquiry progresses.

The Cuddihys are in agreement with the themes identified and are of the view that the following themes also emerged from the evidence:

1. Problems identified such as communication, poor equipment e.g. broken televisions, water quality concerns are ongoing concerns. In consequence, an additional theme, is the failure of issues/concerns to be addressed despite the passage of time. This includes the fact that Wards 2A and 2B remain closed.
2. The impact on patients and their families from having to provide statements and in many instances oral testimony to the Inquiry. This should be considered against the recent commentary by GG and C, and in the Scottish Parliament by various politicians, including the First Minister who stated that the hospital was safe.

As regards the additional Glasgow Questions posed:

1. The Cuddihys accept the accuracy of the summary of the accounts given by witnesses. They note that the following aspects of Professor Cuddihy's evidence are not referred to:

    - The report by Intertek dated 11th July 2018 – this is significant as the concluding statement is "this would seem to indicate that the contamination is not localised but is widespread through the system".
    - Paragraph 110, p.41 – Professor Cuddihy produced the letter from Dr Armstrong in the data bundle referenced in his written statement;

- At para 248, p.85 reference is made to Tom Brown, however the Chairman of GGC is John Brown;
- There is no reference to the Paediatric Treatment Tool (PTT) – which evidences an ongoing absence of effective governance, corporate memory, corporate knowledge and failure to disclose information timeously. Following reference to the PTT in Professor Cuddihy's written statement and Counsel's Opening Statement, contact was made with him as regards the PTT report on the Friday prior to him giving evidence.
- At page 111, the Cuddihy's feel it is important to highlight that not only was there a failure to identify Mycobacterium Chelonae but had the planned surgery proceeded as intended they were advised by the anesthetist that this would have been catastrophic for Molly. This should also be included within Appendix 3 at page 116.

2. The Cuddihys are able to agree the evidence given by witnesses as their perception of events. It should be noted that many of these perceptions are supported by external independent evidence. Notes on aspects of their own evidence are provided above.

3. The communication received by John Cuddihy on 4th July 2019 from John Brown CBE, Chairman of the Board of NHS GGC expressed regret and apologised on behalf of the Board, that Molly had contracted Mycobacterium Chelonae while she was an inpatient in the Royal Hospital for Children.

TIMELINE

Appended is a Timeline which combines those issued by various bodies and that produced by the Inquiry team.

CONCERNS OR QUESTIONS WHICH ARISE FROM THE EVIDENCE AND HOW THEY SHOULD BE INVESTIGATED

1. What contingency planning was in place in the event that part or all of the hospital could no longer accommodate patients for whatever reason?
2. Infection monitoring – was the response to reported infections to regard each in isolation rather than building up a global picture of all infections and from that conduct source tracing.
3. Is there evidence of effective corporate governance either historically or presently?
4. Why were microbiologists told to ignore historical reports such as those prepared by DMA Canyon in 2015?
5. There remains an absence of effective communication, for example the PTT report.

6. Were Children's Rights and Well Being Impact Assessments submitted by GC and C to the Scottish Government? Was the response to the crisis informed by or governed by the rights of the child? No impact assessment was carried out relative to patients and families. This issue was raised during oversight board meetings.
7. What is the impact of the whole of QEUH and RHC being serviced by the same water supply that has been shown to be contaminated? What is the contingency plan for resolving the water contamination issue? Why is the second water source not being used? Has the second water source been tested?
8. Internal communications. Professor Cuddihy has had access to some internal communications and referred to these in his written and oral evidence. These internal communications, referenced in the Timeline produced, evidence corporate knowledge, corporate memory, broader environmental issues, communication and attempts to deter microbiologists from referring to historical reports such as the 2015 DMA Canyon Report. Details of these emails can be provided together with identification of those staff involved. All internal communications from 2015 relative to the elements of water, air-conditioning, drainage and broader environmental issues relative to wards 2A, 2B, 6A and those other areas of RHC and QEUH should be recovered and examined by the Inquiry team.
9. Professor Craig Williams who was involved in the commissioning and validating of the water systems for QEUH and RHC. He is a significant witness who may enhance understanding of the water issues in April 2015 and what mitigation measures were adopted. He was involved in reviewing the water test results for the hospitals as part of the hand over process. He has stated that in doing so, he reviewed a spreadsheet of results with Ian Powrie. He and Mr Powrie observed and approved the methods used by the contractor to sample water outlets. He states that he was not involved as Lead ICD with the sign off of the water systems at QEUH/RHS at handover. It remains unclear who was involved in the sign off of the water systems at hand over.
10. Were those in charge of testing the water at QEUH/RHC appropriately trained to do so? Was there a robust system of testing and recording? Did the testing profile change over time in line with detected infections? Other hospitals test for Mycobacterium Chelonae (MC), why doesn't the QEUH/RHC? Reference is made to a case of MC in 2016 in ward 2A. What was done to investigate this and why was this never referenced in any corporate documentation and therefore used to influence and shape decision making? The Cuddihys were repeatedly told that there had only ever been 4 MC cases in last ten years - ALL in Adult population. Does this include the 2017 identification of MC in ward 7A of QEUH. What was done about the identification of MC at this time? Did this influence the decision making going forward? Was this linked to the 2016 case of MC in ward 2A? If not why not?
11. Are all HAI incidents in QEUH/RHC that may have a potential water link, being managed by current IMT?
12. Has NHSGGC recorded and provided the Scottish Government with details of all HAI incidents, increased incidence of infection outbreaks (including all HIIAT Green) that have occurred in the RHC since 2015 until present? If so, where and when were they reported?

13. Exclusion of Teresa Inkster in or around July 2018 from the internal review which is related to the DMA Canyon report. The internal review was conducted by Tom Walsh, Mary Anne Kane, Jonathan Best and others at the instance of Jane Grant.
14. Maintenance - from 2015 the same debris is still in the water tanks 2 years later – so not just contaminants but reveals poor maintenance – every time DMA Canyon asked for maintenance records, they were not given any.
15. Intertec were comissioned by QEUH to consider a number of issues, primarily consider flow straightener taps. They reported in 2018. Microbiologist had expressed concerns about flow straighteners when QEUH was commissioned. This was due to a problems experienced in a Belfast children's hospital where bacterial infection had been sourced to the use of flow straighteners. Flow straighteners should have been withdrawn but were not. Intertec also examined controlled samples that were reported to have been found to be free without bacteria. 17 of the samples were found to be positive for bacteria with 12 of those heavily contaminated. Inter tec were also asked to examine 2 sponges recovered from the cold water tank that were estimated to have been in situ for over 2 years. The 2015 and 2017 DMA Canyon Reports recorded the same debris.
16. Ventilation - Innovative Design Solutions- Report October 2018 – reported that air conditioning system in Wards 2A and 2B was not fir for immunocompromised patients. The air conditioning system should have been reviewed in all areas of the hospital, particularly those treating immunocompromised patients such as Ward 6A.
17. What was the state of knowledge of patients as to HAI, the treatment being offered, the risks associated with that treatment and in some cases the impact of the infection on mortality. Were patients misled? If so why and under whose direction?
18. Was the Case Note Review comprehensive? Why was patient feedback not passed on to the Review team, such as was experienced by Professor and Molly Cuddihy?
19. Did the Oversight Board have the power to compel GG and C to co-operate and disclose all relevant information? Price Waterhouse Report – timeline of events from 2015- 2020 to consider and overlay aspects of infection and communication – suggest that not all information was made available by GG and C to the Oversight Board. As a result the Oversight Board was not given comprehensive information on all infections, all infection types nor the governance structures in place to manage water, air-conditioning and associated infections. The failure to report Gram Positive and fungal infections. GG and C have stated that they have implemented the recommendations in the DMA Canyon reports but where is the evidence of this?
20. Approach to infection outbreak was focused on single patients as individual events rather than being seen as mutually supportive of a larger crisis amongst immune suppressed patients. This approach, combined with the absence or deliberate ignoring of historical reports, allowed a fragmented picture of infection outbreak to dominate rather than a holistic view of the issues around, for example, water in the DMA canyon reports and the development of water borne infection by patients.

21. Failure to investigate source of infection when they occurred which allowed further patient infections from the same source. This added to an incomplete record of infection contraction and source. By 2018, Molly Cuddihy did not appear on the timeline of acquired infections and neither did incidents of Mycobacterium Chelonae in 2016 and 2017. Review of internal governance documents demonstrate the lack of comprehensive recording and investigation of infections in immunocompromised patients. Focus on Gram Negative infections contributed to incomplete record of infections being compiled.
22. What was the communication strategy both externally and internally? What the GG and C were communicating was at odds with what they knew, for example, the claim that the water was wholesome or that the opportunity was being taken to upgrade the ventilation system.
23. Was appropriate and robust scrutiny and evaluation carried out at handover of the QEUH and RHC?
24. Was there a business continuity plan in place – who owned this- what was it? Was it implemented? What contingency plans were in place for infection outbreak? If this included a requirement to decant patients due to ward closures, what provisions were in place to ensure that protocols and clinical expertise followed and continued to be available to patients? Did this plan anticipate/plan for HPV cleaning and patients constantly having to move room?
25. As matters progressed was there an effective crisis management team in place that showed leadership rather than organizational chaos?
26. Did the QEUH/RHC fulfill its reporting obligations to Scottish Government?

    If so where did statements like that made by Shona Robinson emanate from? Had she misinformation or was she misleading?

    An Independent Review was ordered by the then Health Secretary Jean Freeman. Report. This report lacks scope and depth reflecting the failure of those conducting the review to interview appropriate individuals, including patients/family. Only Professor Cuddihy was included. The report fails to reference issues raised by microbiologists and other experts. The conclusion of the report is ill-founded as it fails to deal with the risk and experience of immunocompromised patients. What investigation was carried out into the allegation that Professor Cuddihy was not being told the truth relative to the out break of MC? Specifically when Dr Inkster stated- ‘ tell Professor Cuddihy the truth”. In addition, who provided that instruction to Dr Inkster and Mr Redfern? Who updated the IMT that Professor Cuddihy had been updated when he had not been?

The investigation of the foregoing issues will require consideration of internal governance documents and communication. In respect of external bodies, such as the Independent Review, once again communication with GG and C and external bodies will assist in any investigation.

Clare Connelly
Advocate
16 December 2021

FUSION OF INFORMATION LEADING TO TIMELINE OF KEY EVENTS – GLASGOW

Yellow- relates to information derived from Case Note Review
Black – relates to information derived from PI Closing Statement
Green- relates to information derived from statement/oral evidence of John Cuddihy

Date	Event	Issue	Witness
2015			
27 January 2015	Handover of QEUH and RHC buildings to NHS GGC	Handover	Case Note Review/Oversight Board
April 2015	Water supply to QEUH interrupted.	Water	John Henderson
April/May 2015	Report prepared by DMA Canyon Ltd provided to QEUH Estates and Facilities Department.	Water	Professor John Cuddihy
10 June 2015	Move from Royal Hospital for Sick Children (Yorkhill) to Royal Hospital for Children (Govan)	Handover	Case Note Review
2016			
Feb 2016	Infection of a child with Cupriavidis pauculus[1]. Investigation linked the infection to a sink in the aseptic pharmacy suite	Infections	Case Note Review
2016	Rare Mycobacterium Chelonae infection identified in paediatric haemato-oncology patient.	Infections	Professor John Cuddihy
2016	Restrictions on drinking tap water within the NICU and Ward 2A. Filters on taps in Ward 2A.	Water	Karen Stirrat; Witness 6
2017			
February 2017	Report of Staphylococcus line infection on Ward 2A.	Infection	Suzanne Brown
March 2017	Concerns raised by staff on Ward 2A about high instance of line infections.	Infection	GGC post to Facebook Group. Appendix to statement of Mark Bisset
March 2017	Concern emerging within NHS GGC about increased bacteraemia rates in Paediatric Haematology Oncology patients. The first PAG for a Gram-negative environmental bacteraemia is convened. Concern also emerged about incidence of Aspergillus spp. infections at the same time. Quality improvement group established to work on reducing CLABSI	Infection	Case Note review

	(Central Line Associated Blood Steam Infection) rates		
April 2017	Power supply to NICU interrupted. Back-up generators required. Restrictions on use of tap water in the NICU. MSSA-PVL infection in the NICU.	NICU Power supply Water Infection	Matthew Smith Theresa Smith
April 2017	Ward 2A shut down for infection control reasons.	Ward 2A closure IPC	Louise Cunningham
August 2017	Investigations into two cases of Stenotrophomonas. Death of Schiehallion patient. Death certificate lists Stenotrophomonas Maltophilia.	Infection	GGC post to Facebook Group. Appendix to statement of Mark Bisset

	Further line infections reported. Enterobacter Cloacae identified as cause of at least one line infection.		Lynndah Allison; Rachel Noon Crossan; Kimberley Darroch
Autumn 2017	Restrictions on use of water on Ward 2A for both drinking and washing. Increased presence ofICT on Ward 2A. Sinks doused and wash hand basin removed. Preventative medication prescribed to protect against the 'environment'.	Water IPC Preventative medication	Stevie-Jo Kirkpatrick; Alfie Rawson; Annemarie Kirkpatrick; Sharon Ferguson
Sept 2017	Microbiology staff raised concerns about the facilities in the QEUH and RHC and the structure of IPCT Service in NHS GGC. (SBAR in October 2017). An action plan was agreed to address these issues	Environment	Case Note Review
October 2017	Second DMA Canyon Ltd report prepared and provided to Estates and Facilities Department.	Water	Professor John Cuddihy

Late 2017	High incidence of line infections, including Enterobacter Cloacae infection. Green caps introduced for Hickman lines due to concerns about line infections. Deep cleaning of patient rooms on Ward 2A.	Infection Deep cleaning IPC	Louise Cunningham; Sharon Ferguson; Annemarie Kirkpatrick
2018			
Jan 2018	DMA Canyon Ltd "Gap Analysis" prepared.	Water	Professor John Cuddihy
February / March 2018	Escalating concerns about water supply on Ward 2A. Signs warn families to run showers before use and not to drink tap water. Bottled water is provided for drinking. Subsequent instructions issued not to use the showers and to use bottled water for washing. Plastic basins provided. Bacteria are identified. Preventative medications are prescribed to immunocompromised children. Filters are installed on taps. Increased ICT presence on Ward 2A.	Water Infections Preventative medication IPC	Suzanne Brown; Molly Cuddihy and others. Lynn Kearns LK/01 (photo)
2 March 2018	Water Incident Management Team IMT convened.	Infection	Case Note Review
13.03.18	Portable sinks provided on Ward 2A.	Water Communication	Lynn Kearns LK/02 (photo) LK/03 (note)

	Written note provided to parents informing them that they could shower at Marion House.		
16.03.18	Written note provided to parents on Ward 2A informing them that the water supply to Ward 2A would be shut off "again". Water supply is shut off completely.	Water Communication	Lynn Kearns
20.03.18	Shona Robison, Cabinet Secretary for Health, makes a statement to the Scottish Parliament in response to questions about "contaminated water" in the QEUH. GGC issue a press release on the same topic.	Scottish Ministers Communication	Professor John Cuddihy

22.03.18	The water supply is restored to Ward 2A and patients are permitted to shower. Filters remain on taps. Patients are instructed to use bottled water for drinking.	Water	Lynn Kearns; Professor John Cuddihy
March 2018	Report prepared by DMA Canyon Ltd in 2015 "surfaces".	Water	Professor John Cuddihy
March 2018	Health Facilities Scotland (HFS) and HPS were asked by NHS GGC to investigate ongoing issues with the water supply.	Environment	Case Note Review
26 March 2018	CNO invoked the National Framework: this offers additional support to to NHS Boards in responding to HAI incidents/outbreaks and ensures assistance from HPS.	Infections	Case Note Review
Approx. Easter 2018	Ward 2A is shut to visitors as a result of unexplained infections. No visitors are allowed for around two weeks.	Ward 2A closure Infection / IPC	Senga Crighton SC/01 (photo)
17 April 2018	Shower Room- ward 17 Flooding- moved rooms	Drainage	Statement of John Cuddihy
April / May 2018	Further outbreak of infections on Wards 2A and 2B. Infections are thought to be linked to drains. Multiple infections reported by witnesses during April and May 2018. Some, but not all, are linked to Enterobacter Cloacae bacteria. Preventative medications are prescribed to patients. Some parents are informed these are to protect against "environmental issues" and that the ward is "under investigation". Continued instruction not to use tap water for drinking.	Drains Infection Preventative medications Water	Professor John Cuddihy Examples include: Haley Winter; Sharon Ferguson; Molly Cuddihy; Denise Gallagher
May / June 2018	Drains on Ward 2A are treated with chemicals. Work is carried out on wash hand basins in Ward 2A to replace sinks traps and pipework. Drains in showers are not replaced at this time.	Drains IPC	Professor John Cuddihy; Leann Young

	HPV room cleaning introduced.		

01.06.18	Rare Mycobacterium Chelonae infection on Ward 2A. Diagnosed from blood cultures taken on 9 May 2018.	Infection	Molly Cuddihy
05.06.18	Parents on Ward 2A are provided with a note explaining the "new method of cleaning" in relation to drains. Chilled beams are also mentioned. Press release issued relating to drain cleaning on Ward 2A. It notes that as an "extra precaution" some patients have been prescribed preventative medications. GGC apologises for the "disruption" caused.	Drains Chilled beams Communication	Professor John Cuddihy; Sharon Ferguson
June 2018	Letter from Professor Cuddihy to the then Chief Medical Officer for Scotland, Catherine Calderwood, outlining concerns about outbreaks of infection on Ward 2A in March and May 2018.	Communication	Professor John Cuddihy
July 2018	A large glass panel falls from height close to the entrance of the QEUH. The Chief Executive of GGC, Jane Grant, responds to a letter from Professor Cuddihy about this incident reassuring him that "windows" are safe and that what fell was a decorative glass panel designed to shatter on impact. Ms Grant agrees to let Professor Cuddihy know the outcome of the investigation into the glass panels.	Glass panels Communication	Professor John Cuddihy
July 2018	GGC completes a plan to address the recommendations in the report by DMA Canyon Ltd dated 2015.	Water	Professor John Cuddihy
11 July 2018	Report from Intertek to GGC regarding investigation into contamination of Flow Straighteners and other areas of suspected contamination	Water	Oral Evidence John Cuddihy
23.07.18	Letter issued from the Medical Director of GGC, Dr Jennifer Armstrong to Professor Cuddihy providing assurance about the safety of Wards 2A and 2B.	Communication	Professor John Cuddihy
August 2018	Instructions continue to be provided not to drink tap water on Wards 2A and 2B. Filters remain on taps.	Water	Charmaine Lacock; Denise

	Reports of infections continue. Dyson fans are removed from the ward due to infection prevention and control concerns. Drains are still being treated with chemicals. HPV room cleaning continues.	Infection IPC Drains	Gallagher; Annemarie Kirkpatrick; Sharon Ferguson;
13.08.18	Scaffolding erected at RHC in connection with cladding works.	Cladding	Leann Young
August 2018	Meeting with parents to discuss infection prevention and control protocols.	IPC Communication	Aneeka Sohrab
07.09.18	Note to parents informing them of alternative access arrangements to RHC due to ongoing cladding works. Note is not issued to all parents on 07.09.18.	Cladding Communication	Colette Gough; Professor John Cuddihy CG/03 (note)
September 2018	Meeting among Professor Cuddihy, Mr Redfern and Dr Inkster to discuss concerns about a lack of proactive communication and risks posed by the discharge lounge entrance, cladding and falling glass panels.	Communication Building risks	Professor John Cuddihy
Early to mid-September 2018	Line infection incidents on Ward 2A. Parents of affected children are called to one to one meetings to be informed of likely link between infections and drains on Ward 2A. Infections include Stenotrophomonas and Serratia Marcescens.	Infection Communication	Cameron Gough; Denise Gallagher
17.09.18	Infection outbreak involving 6 patients on Ward 2A. Closure of Wards 2A and 2B is under consideration although there is no general communication with families to that effect.	Infection Communication Closure of Wards 2A and 2B.	Colette Gough
18.09.18	A number of families learn of the closure of Wards 2A and 2B from news reports, social media and text messages.	Closure of Wards 2A and 2B. Communication	For example, Leann Young; David Campbell, James Gallagher and Charmaine Lacock

18.09.18	A written note entitled "Ward 2A and 2B Update", dated 18.09.18, refers to disruption caused by a new cleaning process intended to deal with Biofilm in drains. It explains that because Wards 2A and 2B house immunocompromised children, the wards will be transferred to another ward in the QEUH whilst a permanent solution is identified. Not all families receive this note on 18.09.18 despite its date.	Closure of Wards 2A and 2B. Communication	Colette Gough; Leann Young CG/02 (note)
Mid-end September 2018	Meetings between some families and Dr Inkster / Mr Redfern. Meetings are at the request of individual families who express concern about the closure of the Wards. At one such meeting, Professor Cuddihy is informed that Ward 6A has a different water supply from Wards 2A and 2B but that precautions would be taken to prepare Ward 6A to receive Schiehallion patients in any event. He is told that an SBAR has been prepared.	Closure of Wards 2A and 2B. Communication Suitability of Ward 6A	James Gallagher; Professor Cuddihy
23 – 26 September 2018	Further line infections reported in immediate run up to the closure of Ward 2A.	Infection	Senga Crighton; Charmaine Lacock
26.09.18	**Closure of Wards 2A/2B and move to Ward 6A**		
September 2018	Preventative medications are prescribed to patients transferred to Ward 6A.	Ward 6A Preventative medications	Charmaine Lacock
Autumn 2018	A problem is identified with inadequate seals around panels in patient bedrooms. HEPA filters are placed in Ward 6A.	Wall panels HEPA filters	Witness 4; Denise Gallagher
Autumn /Winter 2018	Additional chlorination of the water supply implemented.	Water	Case Note review
October 2018	Innovated Design Solutions report commissioned by GGC advises that the ventilation on Wards 2A and 2B is not suitable for immunocompromised patients.	Ventilation	Professor John Cuddihy

Nov/Dec 18	Sewage leak in Atrium / link corridor. Part of roof blows off QEUH.	Sewage leak. Roof	Annemarie Kirkpatrick
Early December 2018	GGC briefing to the effect it is "taking the opportunity" of Wards 2A and 2B being closed to "upgrade the ventilation" and that the decant to Ward 6A will last for another year.	Ward 6A – long term Ventilation Communication	Cameron Gough and others
December 2018	Death of Schiehallion patient who had contracted Cryptococcus.	Infection Cryptococcus	
25.12.18	Difficulties encountered in urgent transfer of patient from Ward 6A to PICU.	Transfer Ward 6A to PICU	Annemarie Kirkpatrick
Dec 2018	Rooms are closed off for works or cleaning in Ward 6A. Line infections continue.	Ward 6A Room closures Infection	Charmaine Lacock; Denise Gallagher
2019			
Early 2019	Instructions given to drink bottled water in the Maternity Unit.	Maternity Unit Water	Samantha Ferrier
January 2019	Professor Gibson, Mr Redfern and Dr Inkster meet with family of patient who contracted Cryptococcus. A likely link to pigeon droppings is confirmed.	Infection Communication	
January 2019	Patients on Ward 6A are prescribed preventative medications. Handout issued to parents. HEPA filters are present on Ward 6A.	Preventative medications HEPA filters	Cameron Gough, Molly Cuddihy, Annemarie Kirkpatrick
19.01.19	Ward 6A inpatients are decanted to the Clinical Decisions Unit in the RHC. The day care unit is moved to Ward 1A within the RHC. Mould has been found in en-suite bathrooms as a result of flawed seals. The closure of Ward 6A is reported in the press. Some families find out about it that way.	Closure of Ward 6A Communication Ward 6A bathroom defects	Mrs Gough; Charmaine Lacock; Annemarie Kirkpatrick

	Parents request an open meeting with representatives of GGC/hospital management to discuss the issues which have arisen on Ward 6A but the request is refused.		

22 Jan 2019	The Cabinet Secretary for Health and Sport announced in Parliament plans for an Independent Review.	Environment	Case Note review
23.01.19	Letter from the Chief Executive of GGC, Jane Grant, to parents about the issues on Ward 6A. Parents are informed that the source of two unusual infections has been identified and dealt with. The letter also references a separate issue with bathrooms on Ward 6A requiring some patients to be transferred out of Ward 6A.	Communication Infections Ward 6A bathroom defects	Colette Gough CG/04 (letter)
February 2019	Ward 6A re-opens.	Ward 6A reopens	Professor John Cuddihy
22 Feb 2019	HPS publish its report: Summary of Incidents and Findings of the NHS Greater Glasgow and Clyde: Queen Elizabeth University Hospital/Royal Hospital for Children Water Contamination Incident and Recommendations for NHS Scotland3.	Water	Case Note Review
Feb / March 2019	Concerns continue about the high incidence of line infections through to the summer of 2019.	Infections	Charmaine Lacock and others
March 2019	Rare Mycobacterium Chelonae in paediatric patient. Sampling confirms infection is linked to the hospital environment.	Infections	Annemarie Kirkpatrick
March 2019	HFS finalised (although never published) its report: Water Management Issues Technical Review: NHS Greater Glasgow and Clyde - Queen Elizabeth University Hospital/Royal Hospital for Children	Water	Case Note review
5 March 2019	Drs Fraser and Montgomery appointed to lead the Independent Review	Environment	Case Note review
14.04.19	Samples on taken on Ward 2A (where no patients are resident) show Mycobacterium Chelonae in 4 locations.	Infections	Professor John Cuddihy
25.06.19	Minutes of IMT meeting record that until the recently identified case, there have been no paediatric cases of Mycobacterium Chelonae reported in last decade.	Infection reporting	Professor John Cuddihy

July 2019	Parents contact the office of Jeane Freeman, the Cabinet Secretary for Health to express concerns that the environment is putting patients at risk. Ms Freeman agrees to the request for a meeting.	Scottish Ministers	Charmaine Lacock
August 2019	Room moves and deep cleaning in Ward 3A.	Ward 3A Deep cleaning	Samantha Ferrier
August 2019	Further outbreak of infections in Ward 6A. Ward 6A closed to newly diagnosed patients and infusional chemotherapy patients.	Ward 6A closure Infection	GGC post to Facebook Group. Appendix to

	Paediatric patient on Ward 4B suffers two infections. Meeting with parents to discuss infection outbreak. Note issued to parents informing them that there are two different infections on Ward 6A and that patients are being prescribed preventative medications.	Communication	statement of Mark Bisset Sharon Ferguson; Karen Stirrat; Mark Bisset
05 Aug 2019	Email to John Brown Chair NHSGGC from John Cuddihy	Communication	Witness Statement John Cuddihy
08.08.19	Professor Cuddihy meets with Mr Redfern and Dr Inkster to discuss the failure to inform him of the new Mycobacterium Chelonae infection.	Duty of candour Communication	Professor Cuddihy
29 Aug 2019	SBAR issued by Consultant Microbiologists raising persisting concerns about the microbiological safety of Ward 6A: subsequently reviewed at IMT 6.9.2019 and options for resolution were discussed (also in relation to the refurbishment of Ward 2A).	Environment	Case Note review
September 2019	Meeting between families and the Cabinet Secretary for Health, Jeane Freeman at Grand Central Hotel in Glasgow.	Scottish Ministers Communication	
Autumn 2019	Significant mould discovered in staff kitchen on Ward 6A thought to have been caused by a long term leak.	Ward 6A Mould	Professor John Cuddihy

September 2019	Closed Facebook Group set up to aid communication between GGC and families.	Communication	
04.10. 19	John Brown, Jane Grant and Jennifer Armstrong visit Ward 6A.	Communication	GGC post to Facebook Group. Appendix to statement of Mark Bisset
4 Oct 2019	Cabinet Secretary for Health and Sport appoints Professor Craig White to review concerns articulated by families and liaise with families as appropriate.	Communication	Case Note Review
5 Oct 2019	Every Thank You Counts Ball with 70 invited staff members	Engagement Fund Raising	Statement John Cuddihy
23.10.19	Professor Cuddihy meets with Professor Craig White and separately with Jeane Freeman and the Chief Nursing Officer, Fiona McQueen.	Oversight Board Scottish Ministers Communication	Professor Cuddihy
November 2019	Meeting among representatives from GGC, hospital management and parents. Parents are informed that the water supply is “wholesome”. Patients continue to be prescribed preventative medications and filters remain on taps.	GGC Communication	Colette Gough; Karen Stirrat; Alfie Rawson
12.11.19	Meeting among Professor John Cuddihy, Professor John Brown, Dr Jennifer Armstrong and Jane Grant.	Communication	Professor John Cuddihy

12.11.19	Letter from Kevin Hill posted on Facebook Group. Addressed to Parents/Carers of patients on Wards 6A and 4B. Provides overview of timeline and of steps taken by GGC in relation toenvironmental issues and "enhancements" on Ward 6A. The water supply is reported to be "safe and effective".	Communication	GGC post to Facebook Group - Appendix to statement of Mark Bisset
22 Nov 2019	Scottish Government's Health and Social Care Management Board escalated NHS GGC to 'Stage 4' of its escalation ladder and a new Oversight Board, led by the CNO, Professor Fiona McQueen, was established.	Infection Communication Governance	Case Note review
23.11.19	Ward 6A reopens to new patient admissions following "a detailed investigation by the IncidentManagement Team and a review by Health Protection Scotland".	Ward 6A reopens. Communication	GGC post to Facebook Group - Appendix to statement of Mark Bisset
24 November 2019	Email to Jane Grant & subsequent response from her	Communication	Statement of John Cuddihy
25 November 2019	Email to Jane Grant & subsequent response from her, including attached letter.	Communication	Statement from John Cuddihy
27 November 2019	Email communication from Jane Grant & reply from John Cuddihy to Jane Grant	Communication	Statement of John Cuddihy

26 Nov 2019	HPS published its report: Review of NHS GG&C Paediatric Haematology Oncology Data (see section 1.2 for further commentary).	Water Infection Environment	Case Note Review
Nov 2019	Letter from Jane Grant regarding Ward 6A re-opening	Communication	Statement of John Cuddihy
12.12.2019	Professor Cuddihy meets with Independent Review team and provides statement	Communication Environment Infection	Statement of John Cuddihy
12.12.19	Professor Cuddihy meets with Mr Jonathan Best,Dr Scott Davidson, Dr Alistair Leonard.	Communication	Professor John Cuddihy
24.12.2019	Email from Independent Review advising Authors wished to speak further; invited to provide further statement	Communication Environment Infection	Statement of John Cuddihy
2020			
06.01.2020	Letter from parent to Chief Operating Officer Acute Services of GGC, Jonathan Best regarding use of prophylactics and environmental issues. Mr Best responds to say that he was not aware of any issues on wards before 2018 and that prior to 2018 there was no indication of any infections outwith the norm.	Infections Communication	David Campbell
21-23 Jan 2020	Molly Cuddihy- Prep in ward 6A for Stem Cell Transplant- concerns re impact on kidneys due to treatment for infection	Infection impact	Statement of John Cuddihy

29 January 2020	Molly Cuddihy attends 4B for Stem Cell Transplant		Statement of john Cuddihy
28 Jan 2020	The Cabinet Secretary for Health and Sport announced in Parliament the plans for a Case Note Review.	Infection Environment	Case Note review
08 February 2020	Overdose of Etoposide Phosphate	Impact of Infection Overdose	Statement of john Cuddihy
11 Feb 2020	Molly Cuddihy Transferred to PICU	Overdose Infection	Statement of John Cuddihy
12/13 Feb 2020	Molly Cuddihy- Delirium	Infection	Statement of John Cuddihy
17 Feb 2020	Molly Cuddihy- contaminated Platelets Propionibacterium Acne	Infection Duty of Candour	Statement of John Cuddihy
24 Feb 2020	The Case Note Review commenced.	Infection Environment	Case Note Review
June 2020	Independent Review published.	Independent Review	

June 2020	BBC airs Disclosure: "Secrets of Scotland's Super Hospital". Patients and families are given no advance notice of the programme.	Communication	Professor John Cuddihy
15 June 2020	ToR published for the Independent Inquiry into the construction of the QEUH, Glasgow and the Royal Hospital for Children and Young People and Department of Clinical Neurosciences (RHCYP/DCN), Edinburgh.	Public Inquiry	Case Note review
21 Dec 2020	The QEUH/NHS GGC Oversight Board published its Interim Report.	Infection Communication Governance	Case Note Review
2021			
Jan 2021	Completion of the review of cases and episodes within the Case Note Review.	Infection	Case Note Review
22.03.21	Final Oversight Board report published.	Oversight Board	
22 March 2021	Case Note Review Overall Report and QEUH/NHS GGC Oversight Board Final Report both published.	Infection	Case Note review
Spring 2021	Individual CNR reports issued.	CNR	
05 April 2021	Individual Case Note Review- Molly Cuddihy- missing information	CNR Communication	Statement of John Cuddihy
17 May 2021	Supplementary Report Case Note review following series of emails between John Cuddihy, Scottish Government & Case Note review team	CNR Communication	Statement of John Cuddihy
02 July 2021	Meeting Chaired by Marion Bain involving members of Oversight Sub, NHSGGC, Case Note Review Team and Paediatric Treatment Tool Authors (PTT)- resulting in exposure of non- disclosure of PTT	Communication	Statement of John Cuddihy