SCOTTISH HOSPITALS INQUIRY

CLOSING SUBMISSION ON BEHALF OF GREATER GLASGOW HEALTH BOARD (NHS GREATER GLASGOW AND CLYDE)

Following May 2022/ April 2023 Hearings on Evidence

1. Evidence has been led before the Scottish Hospitals Inquiry in May 2022 and April 2023 in relation to the Royal Hospital for Children and Young People/ Department of Clinical Neurosciences at Edinburgh. It is understood that, in May 2022, evidence was led in relation to the background to the project for the RHCYP/ DCN (with which NHSGGC is not concerned). More general evidence regarding the theory and practice of ventilation in hospitals was led before the Inquiry at the first part of the May 2022 hearing.

2. Whilst no evidence has thus far been placed before the Inquiry specifically in relation to ventilation arrangements within the QEUH and RHC, examination of issues in relation to the adequacy of ventilation within the QEUH and RHC is a matter within the Inquiry's terms of reference. Further, the most recent Positioning Paper from Counsel to the Inquiry (PPP5) invited submissions from core participants as to the validity of any concerns about the safety of building systems, including ventilation, within the QEUH and RHC.

3. On this basis, it is expected that, in due course, specific evidence will be led before the Inquiry relating to the ventilation at the QEUH and RHC and that reference will be made at that time to the evidence of ventilation theory and practice as put forward in the May 2022 hearing. Therefore, brief submissions are made at this time on behalf of NHSGGC, restricted to this discrete chapter of evidence.

Status of SHMT 03-01

4. The Closing Submission from Counsel to the Inquiry discusses the evidence in relation to the theory and practice of ventilation in hospitals at para 33- 60 and, in particular, sets out certain points relative to SHTM 03-01 from para 46 onwards. However, the status of the SHTM 03-01 guidance is not addressed in Counsel to the Inquiry's submission: it is important to note from the evidence that, in terms of its status, SHTM 03-01 is peer produced guidance which is there to support, rather than replace,

appropriate management and engineering expertise, and compliance with its guidance is not mandatory.[1]

5. This is an important point to note, given that it is stated at para 59 of Counsel to the Inquiry's submission:

> *"If the ventilation requirements set out in SHTM 03-01 are to be departed from, this should be based on a risk assessment. It is submitted that a ventilation system that does not comply with published guidance, and for which there has been no individual risk assessment, is "defective" for the purposes of the TORs."*

6. Whilst it would appear that this statement is put forward in support of the proposed finding at para 304 specific to the RHCYP/ DCN, the general proposition that a ventilation system with no individual risk assessment would be "defective," in any sense of adversely affecting patient care, by virtue of its non-compliance with SHTM 03-01, is not one which is supported by the evidence led at the May 2022 hearing.

Standards set out in SHTM 03-01

7. With reference to the evidence of Professor Hilary Humphreys, and as is recognised in Counsel to the Inquiry's Closing Submission, it would be something of an over-simplification of matters to state that if air change rates in SHTM 03-01 are not followed there will always be a risk to patients: in particular, the question of whether there would be an increased risk of infection to any particular patient as a result would be highly dependent on specific facts and would be challenging to quantify.

8. Further, Professor Humphreys questioned the evidential basis for the standards as set out in SHTM 03-01 from a microbiological perspective in any event. In particular, he questioned what scientific basis exists for the rate of air changes being as they are in the guidance and advised the Inquiry that there is no precise science that he is aware of which sets rates of air changes per hour as they appear in SHTM 03-01. There is no evidence to support why SHTM proposed minimum ventilation requirements are as they are, and there is nothing to suggest that particular rates of air changes themselves have any direct impact upon rates of infection.

9. It is acknowledged that no evidence has been led thus far in relation to the specific lay out and composition of the wards within the QEUH and RHC. However, it is of note that Counsel to the Inquiry's Closing Submission fails to make any reference to the evidence given by Professor Humphreys of the significance of single rooms on wards.

[1] Edward McLaughlin, HFS engineer; statement May 2022 hearing.

Professor Humphreys noted that the relevant ventilation standards appear to have been derived from research carried out by Dr Owen Lidwell in 1972, at a time when hospital wards tended to be configured as Nightingale wards and long before the more recent prevalence of single bedrooms on wards, which is preferred from an infection prevention and control perspective.[2]

10. Whilst acknowledging the importance of ventilation in preventing infection, Professor Humphreys encouraged a more holistic view should now be taken in relation to infection prevention and control and emphasised that ventilation is just one aspect in what should be a series of measures in place to prevent infection, including the use of prophylaxis and, ideally, single bedroom accommodation.

"Best Practice" guidance

11. SHTMs have been described as a "best practice framework." It is submitted that, given the relative antiquity of the research which underpins what is reflected in SHTM 03-01, there must be a question arising as to whether these standards can, some 50 years later, properly be considered as best practice guidance, particularly given the significant impact of single bedroom accommodation that has become a feature in modern hospitals. Indeed, Professor Humphreys highlighted in his evidence that there was now a need for a review of ventilation quality in healthcare facilities in light of various developments in recent years, including in the type of hospital accommodation now provided, and the availability and prescription of prophylaxis

Conclusion

12. Therefore, where there is a departure from the guidance as set out in SHTM 03-01, it is far from clear, on the evidence, that any such departure would, of itself, justify a finding that a ventilation system was "defective," in any sense of adversely impacting upon patient safety and care. It is submitted that the evidence as put forward in the May 2022 hearing does not, of itself, allow for such a finding to be made.

13. In particular, the relevance of the recommended specification of SHTM 03-01 applied in the context of the layout and circumstances of the QEUH and RHC was not a matter explored with the experts, nor was opinion sought on whether any departure from SHTM 03-01 in that specific context would give rise to an increase in risk of infection. For example, the experts were not asked whether a reduced rate of air changes per hour would have any significant impact on risk of infection to a patient who is accommodated in a single bedroom, nor whether there were, in any event, other measures which could be taken which would be equally or, potentially, even more

[2] Professor Hilary Humphreys statement and parole evidence to Inquiry, May 2022 hearing.

effective than those recommended in SHTM 03-01; in this regard, it is important to recognise that the UK health and safety regime as set out in the Health and Safety at Work Act 1974 and associated regulations is one which is goal-setting as opposed to prescriptive.

14. Finally, it is noted that the findings proposed by Counsel to the Inquiry at paras 304-321 are all specific to RHCYP/ DCN and, that being so, no submission in relation to these proposed findings is offered by NHSGGC.

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On behalf of NHSGGC

16 June 2023