

Scottish Hospitals Inquiry

Witness Statement of

Professor Marion Bain

Introduction

1. I am Professor Marion Bain. I am Interim Deputy Chief Medical Officer for Scotland. I have held this role since May 2020. As Interim Deputy Chief Medical Officer I work with the Chief Medical Officer to: provide the Scottish Ministers and Scottish Government policy colleagues with clinical, healthcare and public health advice to inform decision making; and provide leadership to medical and public health professionals across NHS Scotland. My current role has no responsibilities related to Infection Prevention and Control (“IPC”) or NHS Greater Glasgow and Clyde (“NHSGGC”).
2. Between 6 January 2020 and 10 May 2020, at the request of Scottish Government within the Stage 4 Escalation of NHSGGC, I was appointed to the role of Director IPC at NHSGGC. In terms of my formal contractual employment arrangements, I remained an employee of NHS National Services Scotland (“NSS”) throughout this post.
3. Between January 2020 and 2 July 2021 I acted as the principal “sponsor” of the Case Note Review with overall responsibility for delivering a report on its findings to Professor Fiona McQueen as chair of the Queen Elizabeth University Hospital Oversight Board (“the Oversight Board”).

4. I address the following in this statement:
 - a. My Professional Background and Education;
 - b. Appointment to NHSGGC as Director of IPC;
 - c. IPC Governance at NHSGGC;
 - d. IPC concerns raised by NHSGGC staff;
 - e. Escalation of NHSGGC on the NHS Scotland Performance Escalation Framework;
 - f. The work of the Oversight Board;
 - g. My response to questions posed by the Inquiry in relation to:
 - i. The presence of Cryptococcus at QEUH;
 - ii. The “culture” within the NHSGGC IPC team; and
 - h. The Case Note Review.

Professional Background and Education

5. A copy of my CV is appended to this statement. However, by way of short summary, I qualified in medicine from Edinburgh University in 1988, then worked across a range of clinical areas (including in Microbiology) and hospitals in Scotland before specialising in Public Health Medicine. My career developed increasingly over time into senior clinical leadership roles and medical management.
6. I have held a range of senior medical leadership roles at strategic and national levels in Scotland including:
 - Medical Director of Information Services Division of NHS National Services Scotland (2003-09);
 - Board Executive Medical Director, NHS National Services Scotland (2009-17);
 - Delivery Director and Senior Medical Adviser for Public Health Reform in Scottish Government (2017-19); and

- Interim Deputy Chief Medical Officer for Scotland (since May 2020).
7. Between 2014 and 2017 I was the elected Chair of the Scottish Association of Medical Directors (“SAMD”). SAMD comprises all the NHS Scotland Board Executive Medical Directors and is also open to Deputy and Associate Medical Directors with the agreement of their Executive Medical Director. Advice and formal representation from the group is routinely sought when senior medical management expertise and advice is required by the Scottish Government and for cross NHS Scotland work.
 8. I held the role of Director of IPC at NHSGGC from 6 January 2020 to 10 May 2020. I discuss my appointment to that role and my responsibilities below.

Appointment to NHSGGC as Director of IPC

9. On 22 November 2019 NHSGGC were escalated by the Scottish Government to Stage 4 of what was then known as the NHS Scotland National Performance Framework. The NHS Scotland National Performance Framework is now known as the NHS Scotland: support and intervention framework. Despite the name change, the “framework” is substantially similar now to that which was in place in November 2019. The framework provides a model by which the Scottish Government can provide Scottish health boards with support and interventions designed to improve performance. My appointment as Director of IPC was a direct consequence of NHSGGC’s escalation to Stage 4. I was not involved in the Scottish Government’s decision to escalate NHSGGC, or any of the events leading up to that decision. Accordingly, I am not a position to assist the Inquiry in relation to whether the Scottish Government should have made its escalation decision sooner than it did.

10. In late December 2019 I was contacted by Professor Fiona McQueen who was, at that point, the Chief Nursing Officer for Scotland. Professor McQueen explained that the Scottish Government wished to make an external appointment to the Director of IPC role at NHS GGC (within the Stage 4 Escalation) and asked whether I would be willing to take on that role. Professor McQueen's approach followed an initial conversation I had with the then Chief Medical Officer for Scotland, Dr Catherine Calderwood. During this conversation with Professor McQueen I was advised of the background to the proposed role and asked if I would consider taking it on. Having taken time to think about matters, I advised Professor McQueen that I was willing to take on the role and would deliver it to the best of my abilities. By letter dated 23 December 2019 I was appointed as Director of IPC at NHS GGC. A copy of that letter is produced at **Bundle 52, Volume 2, Document 34.1, Page 446**. I took up post on 6 January 2020.
11. I was asked by Professor McQueen to undertake the role to provide senior clinical leadership and to set the strategic direction for IPC improvement. As set out in the letter of appointment, the role of Director of IPC had the following responsibilities:
- Responsibility for leadership of Healthcare Associated Infection at NHS GGC.
 - Lead on any transformation work required in NHS GGC to ensure improvements to the systems, processes and governance in relation to infection prevention and control (IPC) within NHS GGC, with a particular focus on QEUH and RHC.
 - Where required, to put in place relevant staffing support in NHS GGC to take forward this work in agreement with the NHS GGC Board.
 - Work with the IPC sub-group of the Oversight Board to ensure timely provision of information (and, where required, to the Oversight Board).
 - Work with the Scottish Government programme management team and others in their assurance roles in supporting the work of the Oversight Board.

- Work with the Chair of the Incident Management Team (IMT) to ensure actions arising have been acted on and ongoing assurance from the IMT members regarding outbreak investigation and applied rigour.
 - Support the development of an improvement culture with robust IPC risk management among clinical and IPC staff, including any necessary steps to improve relevant joint working between different Directorates within NHS GGC.
 - Oversee the development and conduct of a case review of relevant cases for the Oversight Board.
 - Provide advice to CNO as Chair of the Oversight Board and Jane Grant as CEO of NHS GGC.
12. I reported jointly to Ms Grant, Chief Executive of NHSGGC and Professor McQueen as Chair of the Oversight Board. I reported in terms of my employment accountability to Ms Grant at NHSGGC; and I had briefing and advisory reporting obligations to Professor McQueen as Chair of the Oversight Board. I had no direct line management responsibilities, but I worked on a regular basis with Sandra Devine as Interim Infection Control Manager and Professor Alastair Leanord as acting Lead Infection Control Doctor. There was a collaborative and professional approach from all those with whom I engaged at NHSGGC and I do not consider that an absence of direct line management responsibilities inhibited the effective performance of my role.

13. I have been asked by the Inquiry whether, in consequence of my reporting requirements to Ms Grant, I considered myself to be independent in my decision making when undertaking the role of Director of IPC. The role I was asked to undertake was not an independent one. I was appointed by the Scottish Government within a Stage 4 Escalation context specifically in response to the concerns that resulted in the escalation. I was appointed to the role of Director of IPC within the then existing NHSGGC system. Within that context, in delivering my responsibilities, I made independent decisions based on my professional judgement. I appreciate that some may have the perception that, as part of the NHSGGC executive structure, I was inhibited from making independent decisions, however, that was not my experience.
14. My priorities were: ensuring a strong focus on practical delivery of high-quality IPC, both at the time and to advise on requirements going forward; and contributing and providing insights to the Oversight Board and its IPC Sub-Group set up as part of the Stage 4 Escalation in ensuring IPC systems and processes were fit for purpose. Separately, and as discussed further below, I had responsibility for overseeing the Case Note Review.
15. I focused on: ensuring the day to day delivery of effective IPC was being delivered; identifying and addressing needs in terms of additional capacity and resources for IPC delivery; putting in place organisational development to improve the joint working that is needed for effective IPC; hearing the concerns raised by the microbiologists Dr Teresa Inkster and Dr Christine Peters; meeting with them regularly (generally weekly) to ensure I understood those issues; working with other NHSGGC colleagues to discuss these concerns and agreeing where action was needed; feeding back to Drs Inkster and Peters; keeping both the Chief Executive of NHSGGC and the Chair of the Oversight Board updated, including with more general views, based on my experience of working in the board, of how to improve the effectiveness of the IPC system in NHSGGC.

16. From 17 February 2020 Professor Angela Wallace, Director of Nursing at NHS Forth Valley, was seconded three days per week to NHSGGC as the Operational Director of Infection Prevention and Control following my recommendation to the Chief Executive of NHSGGC and the Chair of the Oversight Board that such an Operational Director be put in place. Professor Wallace took responsibility for the practical delivery of IPC at that time, working with me. Following our joint work, and discussions with the Chief Executive of NHSGGC on the best ways to support work going forward, Professor Wallace subsequently took on full executive lead responsibilities for IPC from 14 April 2020.
17. My role was intended to be time limited and the provisional time agreed with Ms Grant and Professor McQueen following me starting in the role was for six months. I demitted my direct role in NHSGGC on 10 May 2020 as I was asked at that point to take on the Interim Deputy Chief Medical Officer role in Scottish Government in response to the Covid pandemic. I continued to oversee the Case Note Review work until July 2021 following publication of the Case Note Review report on 22 March 2021 and the final meeting of the Case Note Review Core Project Team which I chaired on 2 July 2021.
18. I discuss my involvement in the Case Note Review later in this statement. For clarity, although my formal letter of appointment to Director of IPC at NHSGGC indicated "Oversee the development and conduct of a case review of relevant cases for the Oversight Board", as one of my responsibilities, the work I undertook in overseeing the Case Note Review was separate to my role as Director of IPC at NHSGGC. My reporting responsibilities on the Case Note Review were directly to the Oversight Board and Professor McQueen. As indicated above I continued to oversee the Case Note Review until its completion beyond the time I demitted the role of Director of IPC.

19. Professor McQueen advised me of the issues with IPC and the built environment at NHSGGC that had led to their escalation prior to my taking up post as Director of IPC. Those issues are summarised at paragraph 11 of the Oversight Board's Final Report (**Bundle 6, Document 36, Page 795**). For ease, I have copied para 11 of the report below. I had not had any prior involvement with IPC and the built environment at QEUH and RHC prior to my appointment as Director of IPC.
20. Escalation came against a background of a series of infection issues affecting children and young people in the paediatric haemato-oncology service at the QEUH and the RHC over a number of years, combined with rising concerns about the source(s) of those infections and how they were being handled.
- While cases were reported in 2016 and 2017, concerns significantly mounted between January and September 2018 when the number and diversity of type of infections substantially increased. According to Health Protection Scotland (HPS), there were at least 23 cases, involving 11 different organisms.
 - From Spring 2018, there was a succession of outbreaks, including one in September in the RHC which led to the de-canting of patients into the QEUH and extensive (and continuing) refurbishment of Wards 2A and 2B. In 2019, there was a further major outbreak in Ward 6A in the QEUH, into where the children and young people had been moved after de-canting.
 - The organisms associated with these outbreaks were unusual and often linked to environmental bacteria. In 2018, water testing results suggested that there was systemic water contamination in the QEUH, prompting the introduction of a site-wide chemical dosing solution later that year.
 - Concerns had been raised about the fitness of the new hospitals by several clinicians and microbiologists with respect to environmental infections at various points over the period, dating back to the completion and handover of

the building. Some QEUH/RHC clinicians and microbiologists did not feel that their concerns – particularly about water and ventilation safety – were being effectively addressed, and in some cases, formal whistleblowing procedures were triggered.

- Concerns were also raised by families of the patients involved about how the Health Board was communicating and engaging with them in light of their increasing anxieties about the safety of the hospitals. (These issues have been discussed in the Oversight Board’s Interim Report.)
 - It was not until summer 2018 that senior management were made aware of the existence of external reports highlighting the risks of water contamination as early as 2015, but which had not been acted upon at the time. These reports were discussed publicly for the first time in November 2019.
21. Prior to taking up my post Professor McQueen had explained to me that some clinicians and microbiologists in NHSGGC did not feel that their concerns, particularly about water and ventilation safety, had been previously, or were currently, being listened to or effectively addressed. Two microbiologists, Dr Teresa Inkster and Dr Christine Peters, had been in touch with the then Cabinet Secretary for Health and Sport, Jeane Freeman, to raise their concerns, and this had been followed up by discussions between Professor McQueen and Drs Inkster and Peters.
22. When I commenced my role it was evident that there were significant issues in terms of working relationships between Drs Inkster and Peters and NHSGGC senior management. There were also issues in the working relationships between Drs Inkster and Peters and the core IPC Team. I discuss these issues further below. I had no prior knowledge of the IPC teams at QEUH and RHC preceding my appointment so cannot comment on its culture before that time. My task, once appointed, was forward facing. My responsibility was to ensure effective delivery of IPC and to inform future plans, not to review past actions.

23. I am asked if I can assist the Inquiry in relation to what action was taken by NHSGGC once senior management were made aware of the DMA Canyon water reports (referenced as external reports highlighting the risks of water contamination at paragraph 19 above). In particular, I am asked whether disciplinary action was taken or whether an investigation was instigated to understand how recommendations of these reports had not been actioned. The delayed disclosure of these reports was not within my remit as Director of IPC. Therefore, I cannot assist the Inquiry with this question. As I discuss in the preceding paragraph, my role was “forward facing” and did not cover the matters suggested in the Inquiry’s question. I am asked whether any work was undertaken by NHSGGC to identify whether any other similar reports/concerns about the hospital environment had been “hidden/ignored”. For completeness, I confirm that as far as I am aware, no such work was undertaken during my time as Director of IPC.

IPC Governance – NHSGGC

24. When I took up my post as Director of IPC, there was a central IPC team, which included the interim Infection Control Manager, the acting Lead Infection Control Doctor and the Acting Associate Nurse Director for IPC. There were also local IPC teams covering the different NHSGGC sectors such as South, Clyde and North. There were IPC Groups covering the acute and community sectors and a Board Infection Control Committee.

25. In my opinion, at the time of, and throughout, my appointment, NHSGGC undertook its IPC functions in line with the guidance provided in the National Infection Prevention and Control Policy Manual (**Bundle 4, Document 7, Page 50**). The overall governance and structures in place at the time were as set out in the draft NHSGGC Infection Prevention and Control Assurance and Accountability Framework document 2019 (**Bundle 27, Volume 8, Document 1, Page 9**), however within the Stage 4 Escalation process I undertook the Executive Lead for Infection Prevention Control role from 9 January 2020 and subsequently this transferred to Professor Wallace on 14 April 2020.
26. More generally in relation to IPC delivery and governance, my views, as shared with Ms Grant and the Oversight Board in 2020, were that:-
- IPC services were under considerable pressure to respond to the ongoing IPC challenges (even ahead of Covid-19) within NHSGGC. IPC services were continuing to deal with outbreaks and unusual organisms. They were also dealing with and monitoring the changes that had been made in response to the water issues, and dealing with the increased concern and focus around IPC, including ongoing media focus;
 - That pressure was felt more acutely in relation to the QEUH and RHC than other areas of the NHSGGC estate. The majority of the complex IPC work related to QEUH and RHC and the issues that arose following migration to the new building;
 - The complex and evolving IPC environment within QEUH and RHC presented challenges which required broader approaches to problem solving beyond what was sometimes adopted. There were agreed approaches to IPC which were being followed by NHSGGC, but the particular challenges being faced also required consideration and thinking beyond the routine guidance available to fully consider the potential broader picture around infections and outbreaks that were occurring; and

- There was a need to strengthen effective linkages and joint working for IPC, with clarity about respective roles and responsibilities. I refer to the breakdown in relationships between IPC staff later in this statement.

These views were based on my direct observations and assessment as Director of IPC in NHSGGC, and are also reflected in the Final Report of the Oversight Board, to which I contributed my views.

27. A Healthcare Associated Infection Report which included a summary of the Healthcare Associated Infection Reporting Template (“HAIRT”) and was informed by the work of the groups in para 23 above was presented by the Executive Lead for IPC at Board meetings. The HAIRT report routinely included details on key Healthcare Associated Infection (“HAI”) performance indicators along with details of any incidents and outbreaks. It would be the responsibility of the IPC Executive Lead to decide what additional matters should be reported. I attended one Board meeting on 25 February 2020 during my time as Director of IPC and included an additional (i.e. beyond what would routinely appear in the HAIRT) update on an increased incidence of gram negative cultures in patients in the Paediatric Intensive Care Unit and the work underway to further investigate and address this. The minutes of the board meeting are found at **Bundle 42, Volume 4, Document 73, Page 1461**. The HAIRT presented at that meeting is found at **Bundle 52, Volume 2, Document 35.3, Page 459**.
28. The presentation of a HAIRT occurs at every NHS Scotland Board meeting as a standing agenda item and, as far as I am aware, NHSGGC adhered to this practice. The report also went to the NHSGGC Board Clinical Governance Forum.

29. I have been asked by the Inquiry why any matter of relevance to IPC would not be reported to the NHSGGC Board. As I discuss above, it is the responsibility of the IPC Executive Lead to bring matters of relevance to IPC to the Board's attention. I do not know, and am not able to speculate as to, why a matter relevant to IPC would not be reported to the NHSGGC Board. From my own experience, I attended a single board meeting during my time as Director of IPC and ensured that all matters of relevance related to IPC were reported to the Board at that meeting.

IPC Concerns Raised by NHSGGC Staff

30. As I discuss above, I was aware from discussions with Professor McQueen prior to taking up my post that concerns had been raised in relation to QEUH and RHC. I was aware that some of those concerns originated from NHSGGC staff and dated back to completion and hand over of the building.
31. Shortly after taking up my post, I met with Drs Inkster and Peters, who provided me with comprehensive details of their concerns. Their main concerns were that: issues they had previously and consistently raised around patient safety relating to environmental infections, in particular relating to water and ventilation, had not been adequately addressed; issues they had raised around lack of clarity of the Infection Control Doctor ("ICD") role, alongside the structures to support effective ICD input, and concerns around the cultural environment had not been resolved; and, there were inaccuracies in public media statements that they had historical and ongoing concerns around. I found this initial meeting helpful in understanding more of the background to the IPC issues in NHSGGC and the specific areas where Drs Inkster and Peters had particular concerns. I also met with other NHSGGC colleagues in the core IPC team and members of senior management soon after I started, who also provided me with helpful details from their perspectives of the IPC issues and how they had been addressed. At the initial meeting I asked Drs Inkster and

Peters to email me with any IPC concerns they had moving forward. Thereafter, I met with the doctors on a regular (usually weekly) basis to discuss any concerns raised. These meetings covered Drs Inkster and Peters' historical concerns as well as any novel (current) issues. Such novel issues included; when a new infection/ organism of IPC concern had been identified; when they were aware of a potential environmental risk; and concerns about accuracy of public statements. As expanded on below, I followed these up with other relevant NHSGGC colleagues. I discuss how I responded to concerns raised by Drs Inkster and Peters later in this statement.

32. I have been asked by the Inquiry to provide my views on the adequacy of communication and information sharing between staff within the QEUH and RHC. In this regard, I can only assist the Inquiry from my own observations during my appointment as Director of IPC.

33. From my perspective, there was clear evidence of a breakdown in positive working relationships between Drs Inkster and Peters with both senior management and the core IPC Team. There was a lack of trust from Drs Inkster and Peters. The doctors did not feel that their concerns were being addressed. In return, the core IPC Team and senior managers in NHSGGC had a feeling of constant challenge and criticism from Drs Inkster and Peters. As a result, open and constructive communication was not evident. In my role as Director of IPC I was concerned to ensure that any and all issues of concern were adequately considered and addressed. As a short-term solution I met regularly with Drs Inkster and Peters to hear their concerns and follow them up as required with other colleagues in NHSGGC. The longer-term aim was to resolve the underlying issues as described below.

34. I am asked to respond to the suggestion that if there was a lack of trust of senior management and the core IPC Team from Drs Inkster and Peters that this might, to some extent, have its roots in their perception that those senior management and the core IPC Team had failed to respond to their concerns about culture within the IPC team and the safety of the water and ventilation systems of the building raised by them as far back as their attempts to resign a sector ICDs in July 2015. I agree, based on my conversations with Drs Inkster and Peters that this is very likely. I am not in a position though to comment on to what extent this perception of failure to respond to concerns was justified as it relates to a time prior to my appointment as Director of IPC at NHSGGC.
35. I am told by the Inquiry that both Dr Inkster and Dr Peters sought clarification on their role as ICD on several occasions. During the period of my appointment as Director of IPC neither Dr Inkster nor Dr Peters had formal roles as ICDs. However, as I explained above, I had regular meetings with Drs Inkster and Peters. During these meetings the doctors raised a range of historical IPC concerns. These included the doctors' concerns around how the IPC team had been working, the place and authority of the ICD within this working construct and the general culture around IPC.
36. As Director of IPC I considered all the concerns that were raised with me by Drs Inkster and Peters. The steps taken to deal with them depended on the specific issue. For example, if an issue which was raised related to a current IPC concern, then I ensured that the core IPC team were aware and were dealing with it and that it was appropriately followed up. If an issue was raised regarding a policy or lack of policy, I took forward development and agreement of the policy. If an issue related to communications, I discussed that with the Director of Communications and Public Engagement to ensure messages were clinically accurate. If a concern around facilities was raised, I discussed with the Director of Facilities to ensure that it was being addressed. In the midst of this, there were, sometimes strongly held, differences of opinion between the views of Drs Inkster and Peters and others involved in both direct IPC roles,

other microbiology roles, and associated roles such as communications and facilities. For some of Drs Inkster and Peters' concerns there was a straightforward route to address it (e.g. by ensuring the IPC team were aware and addressing a specific identification of an organism/organisms or progressing delivery of a specific policy). For others, there was a need to improve the working relationships to facilitate sharing and constructive discussions to come to agreement. I used my professional judgement to assess what needed to be, and could be, addressed as a matter of urgency in the short term, while also putting in place the organisational development work intended to develop constructive joint working that is required for effective IPC.

37. In delivery of the Director of IPC role I was focused primarily on current IPC issues and improvements for the future. As a member of the Governance Subgroup and as an attendee at the Oversight Board I was also able to bring my direct reflections, including those gathered from my meetings with Drs Inkster and Peters to the discussions.

38. Differences of opinion in complex clinical matters require open and constructive discussion between experts to inform the best advice in caring for patients and their families. In my view, this open and constructive discussion was not happening. Therefore, through my direct discussions with others, I ensured that concerns being raised were being considered and addressed. This was intended as a short-term solution to ensure effective IPC was delivered. There was a need to create and strengthen positive working relationships across the wider IPC function. This was discussed and agreed throughout January 2020 with Ms Grant and Professor McQueen. Specialist external Organisational Development support was agreed and was commenced during my time with NHSGGC. I discuss this support more fully at paragraph 40 below.

39. I am asked to explain what should happen when a Lead ICD and/or Consultant Microbiologist is of the view that there is a real risk that a particular building system may be the source of infections being suffered by highly immunocompromised patients and they are challenged at an IMT by managers with no experience in microbiology and consultants from other medical specialisms as to whether there is any merit in that hypothesis?
40. I would always expect the views of clinical experts to be listened to and fully considered when assessing infection incidents. Overall, patient safety should be the primary consideration when making IPC decisions. Membership of an IMT will vary depending on the specific circumstances of the incident but the value comes from having a range of relevant specialists and experts, including those with different backgrounds. For example if there are concerns about the risks relating to the built environment, I would expect facilities managers to be involved and contribute their understanding and expertise. IMTs should provide an opportunity for views to be put forward by all present as well as constructive discussion to agree the required actions. I am not in a position to comment on the IMTs prior to my appointment as Director of IPC in NHSGGC. During my time with NHSGGC my expectation and my experience was that IMTs fully took into account the views of the Lead ICD.

41. **Bundle 13, Volume 10, Document 16, Page 99** is email correspondence between myself and Drs Inkster and Peters dated 20 January 2020. This email correspondence (and those in the email chain that preceded it) followed from my first meeting with Drs Inkster and Peters on 10 January 2020. In the last paragraph of my email of 20 January I express a desire to "...get GGC back into a positive and collaborative place for the benefit of patients." As described above, the breakdown in positive working arrangements amongst those involved in delivering IPC within NHSGGC meant that the usual processes of open and constructive discussion were not taking place. My email is clear that work was needed to get 'positive and collaborative' approaches to IPC in place, and that I was intending to work with Drs Inkster and Peters (and others) on this.
42. In order to improve working relationships to support effective IPC I agreed with Ms Grant as Chief Executive of NHSGGC and Professor McQueen as Chair of the Oversight Board that a programme of Organisational Development ("OD"), involving external expertise, would be put in place. I developed this further with Professor Wallace when she took up her role as Operational Director for IPC and the work started in February 2020. A very experienced OD practitioner, Jenny Copeland, was identified to lead the work. The 'discovery phase' of this work was undertaken during my time with NHSGGC. This involved interviews with a wide range of NHSGGC staff involved with roles relevant to IPC and was intended to shape the next stages of a detailed OD plan. This phase of the work was just coming to an end when I left the Director of IPC role however, the work continued to be taken forward under the leadership of Professor Angela Wallace.

43. At paragraph 200 of her witness statement (**Witness Bundle – Week Commencing 2 September 2024 – Volume 3, Document 2, Page 63**) Dr Redding states:

“Mr Ian Ritchie began looking at the bullying culture within GGC and said he was keen to address this. He spoke with Professor Marion Bain who planned to get some external advice on the cultural issues within the IPC and Microbiology teams within GGC.”

44. Dr Redding is referring to the “discovery phase” of the agreed external Organisational Development work described above. Jenny Copeland was appointed in February 2020 to take forward the work. Jenny Copeland worked with Professor Wallace and me to develop a tailored programme of OD. I had left NHSGGC by the time the initial review was completed and I have not had sight of the final report. It was not part of my remit or role to consider issues of bullying.
45. The Inquiry has asked me about my involvement in whistleblowing processes at NHSGGC. I had no involvement in any whistleblowing process at NHSGGC and cannot assist the Inquiry in relation to this. It was not part of my role as Director of IPC to consider the whistleblowing procedures in place at NHSGGC.

Escalation of NHSGGC on the NHS Scotland Performance Escalation Framework

46. I was not involved in the decision of the Scottish Government to escalate NHSGGC to Stage 4 of the NHS Scotland Performance Escalation Framework. I describe my understanding of the reasons for the Scottish Government's decision at paragraph 19 above. I was not involved in setting up the governance structures that accompanied escalation but was made aware of them as my appointment was discussed. The Oversight Board and three subgroups were established as set out in Chapter 1 of the Oversight Board Final Report (**Bundle 6, Document 36, Pages 795-921**).

The Work of the Oversight Board

47. The Final Report of the Oversight Board (**Bundle 6, Document 36, Pages 795-921**) describes how the Oversight Board was established and constituted. I was not involved in those arrangements.
48. During the time that I was Director of IPC at NHSGGC, I attended the Oversight Board. I was a member of the Infection Prevention and Control and Governance Sub-Group. Between January and May 2020, I contributed to the discussions by providing, amongst other things, direct insights from my role as Director of IPC within NHSGGC. I also provided the Oversight Board with regular updates on progress with the Independent Case Note Review (discussed further below). When I left NHSGGC in May 2020 I continued to attend meetings until the Case Note Review work was completed, subject to the demands of my role as Interim Deputy Chief Medical Officer during the Covid pandemic.

49. As I discuss above, in my role as Director of IPC I reported jointly to Ms Grant Chief Executive of NHSGGC and Professor McQueen, Chair of the Oversight Board. I had no specific or different reporting arrangements in relation to my attendance at the Oversight Board. I had a specific, and separate, task from the Scottish Government related to the delivery of the Case Note Review and I reported regularly on progress on this to the Oversight Board.
50. I contributed to the reports (interim and final) of the Oversight Board as a member of the IPC and Governance Sub-group and during my attendance at meetings of the Oversight Board. I agree with the Oversight Board's recommendations. I was no longer in post at the time the recommendations were made so cannot comment on the steps taken by NHSGGC to implement the Oversight Board's recommendations.
51. I am asked whether, during my time as Director of IPC, I formed the view that NHSGGC took a "nothing to see here" approach to the work of the Oversight Board/their escalation to level 4 of the NHS Scotland Performance Escalation Framework.
52. During my time as Director of IPC, the Oversight Board made regular requests for information from NHSGGC related to its IPC systems. Those requests were responded to fully and comprehensively by NHSGGC. Responding to some of these requests was a very time consuming exercise for NHSGGC. I found all of those with whom I interacted at NHSGGC to be fully committed to delivering and supporting patient care, including by responding appropriately to any demands placed upon them by the work of the Oversight Board.

53. I would not describe NHSGGC's attitude as being "nothing to see here" in so far as it might be implied that they were dismissive of, or obstructive towards, the work of the Oversight Board or my appointment as Director of IPC. However, the IPC core team and senior management in NHSGGC expressed to me that they felt that they and NHSGGC had done, and continued to do, all that could be done to deliver best patient care, including by following all processes required of them prior to their escalation. My reflection on that was that NHSGGC did not generally accept that further support was required for them to help address the underlying causes of their escalation.

Cryptococcus at QEUH and RHC

54. Cryptococcus is a fungus that is found in the environment. It is usually harmless to humans but can cause infections in people with weakened immune systems. Concerns about Cryptococcus infections and NHSGGC's response to those concerns were raised by Drs Inkster and Peters in the first discussions I had with them in January 2020. These concerns (at that point) related to what had happened prior to my involvement with NHSGGC and I considered this as useful background as I took on my role which was, as I discuss above, "forward facing".
55. Dr Inkster emailed me on 15 January 2020 raising concerns about governance in relation to the IMT Expert Advisory Sub-Group (referred to as the "Cryptococcal advisory group") (**Bundle 13, Volume 10, Document 16, Page 101**). In particular, Dr Inkster raised concerns about discussion of the group's report at Board meetings and the partial dissemination of the report to the Health and Safety Executive. The matters raised by Dr Inkster on 15 January 2020 related to a time before I took up post as Director of IPC. Nonetheless, I agree with Dr Inkster's position that any reports that are discussed at board meetings or released to external agencies must be fully accurate and that appropriate governance arrangements should be adopted to ensure that

happens. I cannot comment on whether such governance procedures were adopted in relation to the points raised in Dr Inkster's email of 15 January 2020 because the relevant events pre-date my appointment.

56. When I took up post as Director of IPC in NHSGGC in January 2020 there had been work underway by the Cryptococcus IMT Expert Advisory Sub-Group since February 2019. I had no direct involvement with the Cryptococcus IMT Expert Advisory Sub-Group. I understood it had been set up to explore hypotheses around the Cryptococcal infections at QEUH and RHC and I was content to let it do its work. My more direct involvement with Cryptococcal infections occurred when Professor John Hood alerted me, on 24 February 2020, to his concerns about inaccurate information in Board papers. Those concerns were raised in an email dated 24 February 2020 (**Bundle 14, Volume 2, Document 125, page 455**). Professor Hood emailed me to express concern that the wording used in papers to be discussed at the board meeting of 25 February 2020 was inconsistent with the views/hypotheses of the Cryptococcus IMT Expert Advisory Sub-Group. As discussed above, I had no direct involvement with the sub-group so no reason to doubt the accuracy of the papers prior to receiving Professor Hood's email. I was grateful to Professor Hood for raising his concerns with me. I was concerned that the Board receive fully accurate information. Given that the Chair of the group had indicated that he did not agree with part of the update report, I was keen to ensure that the Board received information that accurately reflected the view of the Chair of the group.

57. I understood Professor Hood's specific concerns about the report to the Board, to be as stated in the letter attached to his email to me, relevant excerpts of which are copied below:

"...the Final Report of this Group has yet to be completed (let alone discussed and agreed by the Group) and may take many more weeks yet..."

(Regarding the statement in the Board paper) " 'The hypothesis that the air from the plant rooms, via the AHUs, was the likely source of the cryptococcal spores, specifically those of C, neoformans, which were then breathed in by the case patients, has subsequently been categorically ruled out as it is not technically possible'"

I would certainly not use the words 'categorically ruled out', my words would be 'very unlikely'. I also feel that this statement is misleading. The insertion of 'via the AHUs' is the key. The nuance being that those reading this statement may believe that we have 'categorically ruled out' the plant rooms as the source of cryptococcal spores. This is not correct."

58. Following receipt of Professor Hood's email, I alerted Ms Grant to the concerns raised by Professor Hood by telephone. I did so ahead of the Board meeting to ensure that she could provide an accurate report and correct the statement that had been made in the papers circulated to the Board. At the Board meeting, Ms Grant highlighted the previously provided statement that 'the hypothesis that patient acquisition could have resulted from spores of *Cryptococcus neoformans* (derived from the pigeon guano) likely to be present in the plant room air, which then 'gained access' in some way into the Air Handling Units which provided the ventilation to the wards in which the patients were treated was categorically not the case'. She advised the Board that it was not yet possible to state this categorically, however, reported that this hypothesis was very unlikely and also noted that the final report was awaited. This was recorded in the minutes of the Board meeting of 25 February 2020 (**Bundle 42, Volume 4, Document 73, Page 1461**). It was Ms Grant's decision how to advise the Board but in my view this addressed the specific concerns raised by Professor Hood as stated in his letter to me.
59. I have been asked by the Inquiry whether the Board of NHSGCC were seeking to rule out hypotheses and force a conclusion on the likely cause [of infection] being reactivation before full investigations had taken place? I understand the Inquiry to be asking whether, in my view, the Board of NHSGGC sought to force conclusions that the source of patient infection was not the hospital environment but an alternative hypothesis that this was reactivation of a latent infection from the patient themselves. I have no evidence that this was the case. As I describe above, Ms Grant was clear to correct the inaccuracy highlighted by Professor Hood.

60. I have been asked by the Inquiry whether I considered the governance structure of the Cryptococcus IMT Expert Advisory Sub-Group to be effective. The governance had been established prior to my time with NHSGGC. When I joined NHSGGC as Director of IPC in January 2020 the Sub-Group appeared to be thoroughly assessing the situation and progressing satisfactorily with its work but with more to do before completion. I was content for it to continue to undertake its work with the expectation was that it would report back to the IMT once its work was completed.
61. I have been asked if I have read the final report of the Cryptococcus IMT Expert Advisory Sub-Group (**Bundle 6, Document 39, Page 1115**). I have not. I understand that the final report of Cryptococcus IMT Expert Advisory Sub-Group was published in 2022 which was after I demitted office as Director of IPC. The purpose of the group was to provide advice and evidence to the NHSGGC Incident Management Team on the hypotheses relating to a Cryptococcus incident within QEUH. This is not a matter that falls within my current remit as Interim Deputy Chief Medical Officer. HAI is an area of policy responsibility for the Chief Nursing Officer's Directorate. I was not aware that NSS do not accept its findings and do not know the reasons why that view has been reached.
62. I had no involvement in the media and press statements released in respect of the Cryptococcus incidents at QEUH and RHC in 2018 and 2019. I took up my position as Director of IPC in January 2020.
63. I had no involvement with a Cryptococcus case at QEUH and RHC in around June or July 2020. I was no longer in post as Director of IPC at this time. Likewise, I cannot comment on the Board of NHSGGC's awareness of "future cases" of Cryptococcus at QEUH and RHC.

Culture within the NHSGGC IPC Team

64. The Inquiry has asked for my view on the culture within the IPC Team at NHSGGC, particularly in the QEUH and RHC? I have been asked if I have any concerns in respect of the culture within the IPC Team at the QEUH? In particular, do I consider that the IPC Team at NHSGGC, particularly in the QEUH and RHC, created an environment where ICNs, ICDs and microbiologists were actively encouraged to bring forward concerns about potential links between infections and the hospital environment and where systems existed to ensure that unusual microorganisms not included on national lists of mandatorily reported infections and infections caused by them were reliably identified, investigated and reported to HPS/ARHAI in compliance with the National Infection and Prevention Manual?
65. I cannot comment on culture prior to taking up my role as Director of IPC in January 2020. As described above, the culture when I arrived was not conducive to open and constructive discussion. In my role I actively encouraged highlighting and reporting of unusual organisms and, in particular and as described above, put in place short term measures to ensure that Drs Inkster and Peters were able to raise any concerns with me directly.
66. The Inquiry has asked me whether the removal of then lead ICD, Dr Inkster, as chair of the Gram Negative Bacteraemia IMT was done in accordance with acceptable standards of good governance and good clinical practice?
67. This occurred prior to my appointment to NHSGGC and I am not able therefore to give an informed view on this.

68. By reference to the report of the Vale of Leven Inquiry I am asked, from what I learned as Director of IPC at NHSGGC, was there sufficient connection “from Board to Ward” in respect of IPC at NHSGGC in 2017, 2018 and 2019. I cannot comment on what occurred prior to my appointment. However, part of the role of the Director of IPC is to ensure connection from Board to Ward and from Ward to Board. I ensured this connection was in place during my time in that role. As well as my meetings with the IPC team and receiving routine IPC updates, I regularly visited the wards in QEUH/RHC. At the Board meeting that took place during my time as Director of IPC I provided the Board with a written and verbal update. As Director of IPC I regularly met with Ms Grant as Chief Executive of NHSGGC and Professor John Brown as Chair of NHSGGC to discuss IPC matters.

The Case Note Review

69. On 28 January 2020 the then Cabinet Secretary for Health and Sport, Jeane Freeman, announced in the Scottish Parliament that the Scottish Government had commissioned a Case Note Review, to be undertaken by independent experts, to consider concerns related to certain infections in the paediatric haematology oncology service at QEUH and RHC.
70. When I was approached by CMO and CNO in late December 2019 I was asked, in addition to taking on the Director of IPC role in NHSGGC, to oversee the work of an independent Case Note Review. This additional role is included in my letter of appointment dated 23 December 2019 as I discuss at paragraph 11 above. I commenced this work in January 2020. I reported directly to Professor McQueen, as Chair of the Oversight Board, in relation my role pertaining to the Case Note Review. I did not report directly to the Scottish Government or Ministers. I did not have any reporting responsibilities to NHSGGC in relation to the Case Note Review as the work was being undertaken on behalf of the Scottish Government. I provided the Board of

NHSGGC with an update on the work of the Case Note Review at the one Board meeting I attended as Director of IPC at NHSGGC.

71. The work of the Case Note Review expert panel and my engagement in relation to this is set out in the Case Note Review Overview Report (**Bundle 6, Document 38, Page 975**). However, by way of brief overview I worked with Scottish Government colleagues, in particular Philip Raines, to: establish the groups required and identify relevant individuals to contribute. During my time as Director of IPC in NHSGGC I also: identified and facilitated access to relevant data and information held by NHSGGC required by the Review; oversaw communications with the patients included in the review and their families, and also the clinicians involved with their care; and kept NHSGGC colleagues updated on progress. Once the Review was underway my main role was to oversee progress and to keep the Oversight Board updated. I chaired a monthly Core Project Team meeting. This was attended by the three members of the Case Note Review Expert Panel, the leads for the two main clinical and epidemiological data collection groups, members of the Scottish Government QEUH Support Unit and the Programme Manager for the Case Note Review. These meetings considered and agreed the approach to the review, reviewed progress and considered any issues that needed to be resolved. The Core Project Team held its final meeting on 2 July 2021.

72. I am asked why the March 2021 “A Paediatric Trigger Tool Review of Patients at the Royal Hospital for Children in NHS Greater Glasgow and Clyde” (“the PTT Review”) (**Bundle 25, Document 9, Page 304**) never published despite a request from Professor Cuddihy? The Paediatric Trigger Tool Review was commissioned by the Chief Nursing Officer to support the work of the Case Note Review, and it provided helpful information that assisted the Case Note Review Expert Panel. Within the Case Note Review work there was not an intention to separately publish a PTT Review report. When I chaired the final meeting of the Case Note Review Core Project Team on 2 July 2021, at which Professor Cuddihy was present as an invited guest, the PTT Review was

discussed. At that point the report had been shared with Professor Cuddihy directly by Dr Patricia O'Connor who had a leadership role in the PTT Review work. Professor Cuddihy highlighted that he felt that the other patients and families should also be able to see the detail of the report. I agreed with this. This was then taken forward through the CNO Directorate at Scottish Government and the QEUH/RHC Advice, Assurance and Review Group (AARG), including consideration of wider publication. My understanding is that the report was subsequently shared by NHSGGC with the families who wished to see it.

73. When I left NHSGGC to take on the Interim Deputy Chief Medical Officer role in May 2020 I continued my oversight of the work of the Case Note Review and chairing the Core Project Team. With my move to the Interim Deputy Chief Medical Officer role and the significant time pressures within that role due to the Covid pandemic, much of the detailed work involved in completing the Case Note Review, dealing with any specific issues around it, and some of the regular reporting to the Oversight Board transferred to Philip Raines from mid-2020 onwards.
74. The conclusions and recommendation of Case Note Review expert panel are contained in chapter 10 of the Overview Report (**Bundle 6, Document 38, Page 975**). I agree with the conclusions. I am satisfied that those conclusions were reached following a review undertaken by independent and respected experts in paediatric oncology, microbiology and IPC. The approach taken was both thorough and comprehensive. A wide range of relevant data and information was gathered and considered by the panel. I have been asked when I became aware that the NHSGGC Board corporately did not accept the principal conclusion of the Case Note Review that 30% of the infection episodes reviewed were probably related to the hospital environment. I only became aware of this during my preparation for this Inquiry. I had no ongoing involvement with the response to the Case Note Review beyond publication of the report on 22 March 2021 and chairing the final Case Note Review Core

Project Team meeting on 2 July 2021. My remit as Interim Deputy Chief Medical Officer did not include any ongoing involvement with IPC in NHSGGC other than completing the Case Note Review work. I was not involved in the decision to de-escalate NHSGGC in June 2022 so do not know whether the NHS Board's non-acceptance of the principal conclusion of the Case Note Review was considered as part of that decision. All that being said I believe that the Case Note Review was a very thorough, robust and evidence based process which I have confidence in.

75. A draft overview report was shared with NHSGGC prior to finalisation (**Bundle 25, Document 2, Page 45**). NHSGGC prepared a very detailed response in relation to the draft. The response highlighted areas where NHSGGC considered incorrect findings had been reached. A copy of the NHSGGC response is produced at (**Bundle 25, Document 3, Page 151**).
76. Professor Mike Stevens provided a response to the points raised by NHSGGC. A copy of Professor Stevens' response is produced at **Bundle 25, Document 5, Page 157**. In my professional opinion, Professor Stevens' response was appropriate and I agree with it. He comprehensively considered all the points raised. In some cases, the points raised by NHSGGC were accepted and amendments were made to the final report. In others Professor Stevens gives additional detail to demonstrate where the NHSGGC point is incorrect. He also fully clarifies the ask of the Case Note Review Expert Panel and describes why the methodology that was used was appropriate.
77. I was no longer in post with NHSGGC when the Case Note Review Overview Report was published. Accordingly, I am unaware as to what extent or how NHSGGC has implemented its recommendations.

78. As part of the work of the Case Note Review, individual reports were prepared in respect of each “infection episode” included within the review for every patient. The reports summarise the panel’s findings in respect of each infection episode. The reports were viewed as private reports between the Case Note Review panel and the patient and family concerned. In my oversight/ governance role I did not have access to these confidential reports. I would not have expected to have been provided with access to such documents as it was not necessary for performance of my role. Chapter 7.3 of the Overview Report explains the approach taken by the Case Note Review Panel in relation to the individual reports (**Bundle 6, Document 38, Page 975**). The individual reports were not shared with NHSGGC other than with the consent of the patient or family in line with Caldicott Principles for sharing of confidential patient information.
79. I have been asked by the Inquiry to what extent I accept that the decision to ensure that individual reports were confidential to the patients and their families and were not made available to NHSGGC has now made it possible NHSGGC to reject the conclusion of the Case Notes Review and attempt to persuade the Inquiry, the patients and the families that there was no link between all but two of the infections in the Schiehallion patient cohort and the hospital environment?
80. As discussed above, the review was undertaken by independent and respected experts in paediatric oncology, microbiology and IPC. The approach taken was both thorough and comprehensive. A wide range of relevant data and information was gathered and considered by the panel. The findings, along with the reasons for them, are described in detail in the Overview Report. The individual reports were intended as specific feedback to patients and their families. In my view not seeing these individual reports is not a valid reason to reject the findings of the report. While I have not seen the individual reports, I have no reason to think that the Overview Report does not fully reflect and report the findings from all the individual reports. My experience of working with Expert Panel was that they delivered what was asked of them, seeking and taking into account all available information, and with their fully independent

views. Professor Stevens and the other members of the Case Note Review Expert Panel may be best placed to address the Inquiry's specific questions in this regard. The members of the panel authored the individual and overview reports.

Declaration

I believe the statement attached is true and accurate and may now form part of the evidence before the Scottish Hospitals Inquiry and be published on the Inquiries website.

The witness was provided access to the following Scottish Hospital Inquiry bundles/documents for reference when they completed their statement.

Appendix A

A37525665 – Bundle 4 – Single Bed Derogation

A50152363 - Witness Bundle - Week commencing 30 September 2024 - Volume 7

A49882926 - Witness Bundle – Week Commencing 9 September 2024 - Volume 4

A47472337 - Bundle 13 – Miscellaneous - Volume 10

A49847577 - Witness Bundle – Week Commencing 2 September 2024 - Volume 3

A43293438 - Bundle 6 – Miscellaneous Documents

A50039563 – Bundle 27 – Miscellaneous Documents – Volume 8

A49541141 - Bundle 14 – Further Communications - Volume 2

A49585984 - Bundle 25 – Case Note Review Expert Panel, Additional Reports and DMA Canyon

A52696861 – Bundle 42, Volume 4 – Previously Omitted Board Minutes and Relevant Papers (2009-2020)

The witness provided the following documents to the Scottish Hospital Inquiry for reference when they completed their statement.

Appendix B

A34187609 – Bundle 52 – Volume 2 – Miscellaneous Documents

A37083623 – Bundle 52 – Volume 2 – Miscellaneous Documents

Appendix C

PROFESSOR MARION BAIN

CURRICULUM VITAE

QUALIFICATIONS

BSc (Hons) Pharmacology, University of Edinburgh, 1986

MB ChB, University of Edinburgh, 1988

MSc (Community Health), University of Edinburgh, 1993 – awarded the **Brotherston Medal** as the outstanding postgraduate student 1992/93

Fellow of the Faculty of Public Health, 2003

MBA, Henley Management College, 2004

Honorary Fellow of the Royal College of Physicians of Edinburgh, 2015

Full GMC Registration with licence to practice (GMC Number 3288670)

CAREER HISTORY

Current posts

May 2020 – present

- **Interim Deputy Chief Medical Officer** for Scotland, Scottish Government

June 2012 - present

- **Honorary Professor**, College of Medicine & Veterinary Medicine, University of Edinburgh

Previous posts

April 2020 – September 2021

- **Non-Executive Director** on Public Health Scotland Board, and Chair of the Board Public Health and Wellbeing Governance Committee

January 2020 – May 2020

- **Director of Infection Prevention and Control**, NHS Greater Glasgow & Clyde

October 2017 – December 2019

- **Delivery Director for Public Health Reform** and **Senior Medical Adviser**, Scottish Government

July 2009 – October 2017

- **Executive Medical Director**, NHS National Services Scotland

March 2016 – August 2016

- **Interim Chief Executive**, NHS National Services Scotland

October 2003 – June 2009

- **Medical Director**, Information Services Division, NHS National Services Scotland

Concurrently, January 2008 – June 2009

- **eHealth Medical Director**, NHS National Services Scotland

October 1995 – September 2003

- **Consultant in Public Health Medicine**, Information and Statistics Division of NHS National Services Scotland (known as the Common Services Agency at that time)

With half-time secondments:

- **Senior Medical Officer**, Scottish Executive Health Department (2001-2002)
- **National Health Demonstration Projects Co-ordinator**, Scottish Executive Health Department (1999)

September 1992 – September 1995

- **Public Health Medicine Higher Specialist Training**, Edinburgh University, NHS Borders, NHS Lothian

August 1988 – August 1992: **Clinical posts**

- Edinburgh Royal Infirmary, Royal Victoria Hospital Edinburgh, Falkirk and District Royal Infirmary, St John's Hospital Howden, City Hospital Edinburgh.
- Specialties covered: General Medicine, General Surgery, Infectious Diseases, Medicine for the Elderly, Medical Microbiology, Orthopaedic Surgery, Thoracic Surgery, Urology.

OTHER SELECTED POSITIONS

2014 – 2017: Elected **Chair of the Scottish Association of Medical Directors (SAMD)**

Previously **Vice-Chair** (2012 – 2013), and **Secretary** (2008 – 2012)

- Outcomes: support across the Medical Director cohort and sharing of issues for resolution; organisation of three successful Annual Conferences focused on strengthening leadership; increasingly co-ordinated Medical Director leadership in shaping national decisions.

2014 – 2017: **Chair of the NHS Scotland Responsible Officers (RO) Network**

- Outcomes: introduction of a standard appraisal system for ROs to support revalidation; successful revalidation of all NHS Scotland ROs; ongoing support for revalidation across Scotland.

2013 – 2014: Invited **Chair of the Farr Institute (Scotland) Executive Governance Group**

- Outcomes: delivery of the new National Health Informatics Research Institute on time and to budget, and with buy in and support from all partners.

2011: Invited **Chair of the national Technical Advisory Group on Resource Allocation (TAGRA) Morbidity and Life Circumstances Group**

- Outcomes: delivery of what was recorded as a high quality report to TAGRA; implementation of the recommendations which ensures that resource allocation reflects unmet need relating to deprivation and life circumstances.

2009-2012: Invited **Chair** of the NHS Healthcare Improvement Scotland **National Surgical Profiles Group**

- Outcome: evidence of improved outcomes following surgical care.

2004-2010: Invited **Advisor to The Health Foundation 'Engaging with Quality'** award scheme

- Advisor on the design of three major award schemes for improving quality of care in both secondary and primary care; contribution of specific expertise on use of information for quality improvement; member of the core assessment panel.

2003-2009: Member of **National Panel of Specialists for Public Health Medicine**

- Advice on consultant appointments and membership of Appointment Panels.

PUBLICATIONS

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