The Scottish Parliament
Pàrlamaid na h-Alba

Jeane Freeman MSP
Cabinet Secretary for Health and Sport

Via email only

Health and Sport Committee
T3.60
The Scottish Parliament
Edinburgh
EH99 1SP
Tel: 0131 348 5210
Calls via RNID Typetalk: 18001 0131 348 5224
Email: healthandsport@parliament.scot

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Dear Cabinet Secretary

Health Hazards in the Healthcare Environment Inquiry

The Health and Sport Committee's inquiry into Health Hazards in the Healthcare Environment has highlighted a range of themes and issues which we wish to draw to your attention. This letter sets out these issues, which we would be grateful for your consideration and response.

As you will be aware in February the Committee launched its inquiry following concerns regarding a range of incidents and infections at the Queen Elizabeth University Hospital (QEUH).

Our short inquiry is looking at the issues arising from the QEUH in the wider context. We have been seeking to identify the scale of any health problems acquired from the healthcare environment in Scotland whilst also considering the wider implications for health facilities across Scotland.

To date, the Committee's evidence gathering has included receipt of 27 written submissions and an oral evidence session held on 19 March with representatives from the Health and Safety Executive (HSE), Healthcare Improvement Scotland (HIS), Health Facilities Scotland (HFS) and Health Protection Scotland (HPS). We issued further correspondence to these organisations on the 22 March and a response was received on 29 March.

Prevalence

One issue we have explored is the scale of health problems acquired from the healthcare environment.

The evidence we received from HPS suggested that levels are low, with 48 healthcare associated incidents and/or outbreaks having possible links to the healthcare environment in the period 1 April 2016- 31 January 2019. HPS detailed this accounted for just 10.5% of the total infection incidents and outbreaks reported to them during the same period.

HPS also highlighted the complexity faced in determining the built environment as the sole contributing factor for incidents due to challenges in assessing whether an incident originated from its design, maintenance or use.

We recognise the existence of these issues as factors in monitoring accurately the scale of health problems acquired from the healthcare environment. However, as we detail in this letter we have concerns regarding how comprehensive the current surveillance and monitoring approach is in identifying incidents and producing accurate data on their prevalence across NHS Scotland.

Are you confident the data provided by HPS is capturing all healthcare associated incidents linked to the healthcare environment?

Monitoring and Surveillance

We believe it is important to ensure appropriate monitoring and surveillance systems are in place not only to identify where the healthcare environment has resulted in incidents or outbreaks but where it may cause potential issues.

The Committee is concerned that problems may only come to light once patients are infected. We have been unable to glean whether – aside from legionella testing – any proactive testing of systems such as ventilation and water takes place. We heard evidence about the point prevalence survey but as this only takes place every 5 years, we are concerned there is nothing else in the meantime.

Can the Cabinet Secretary clarify whether proactive testing of such systems should take place (as well as legionella testing)?

Surveillance to prevent outbreaks

We have been keen to understand whether surveillance systems can be used to prevent outbreaks/infections from occurring in the first place. To what extent do you believe there is scope to consider a more pro-active, routine, forward-looking surveillance element in the approaches currently adopted?

HPS (in response to question 6[1] in our follow up correspondence to HPS) detail that infection surveillance intelligence is used to measure success of infection prevention and control and identify areas for improvement. HPS highlight that currently across NHS Scotland methods used for carrying out surveillance of laboratory samples vary depending on the IT systems available at board level. HPS suggest that development of electronic surveillance systems at a national level may improve intelligence.

[1] Question 6: Can surveillance systems be used to prevent outbreaks/infections from occurring in the first place? (Col 11)

Do you agree that prioritisation should be given to development of such a system? If so, what steps are the Scottish Government taking to deliver a national system? How will it be funded and by when will the Scottish Government be looking to achieve delivery? What changes do you expect a national system to deliver?

Governance of estates and maintenance

The current approach to the governance of NHS estates and maintenance seems to place a high level of dependence on NHS boards own internal mechanisms to highlight possible issues. While there is an expectation on NHS boards to comply with relevant guidance and memoranda, there does not appear to be any external body providing systematic monitoring of NHS boards compliance and performance against some of these standards/expectations. The system relies on the presumption that NHS boards are complying with the guidance. In the oral evidence, Jim Miller from HFS said:

> My organisation presumes that there is compliance with the guidance. Health Facilities Scotland asks for compliance in two areas against the guidance: national cleaning standards and the decontamination of medical instruments. Other areas refer back to the boards' internal management structures and how they use the guidance to best manage their estates.

We are concerned that where systems within an NHS board are not operating effectively, there is limited opportunity for problems to be identified by an external organisation and steps taken to improve an NHS board's performance.

Is this a concern shared by the Scottish Government and if so what steps do you believe should be taken to improve the current approach?

The letter we received from HSE, HIS, HFS and HPS following their oral evidence session provides several examples of the emphasis being placed on the accountability of the NHS board to deliver appropriate monitoring and surveillance. There appears to be a limited role for HIS, HFS and HPS.

Examples from the letter include the following:

- HPS (in response to question 4[2]), detailed that its literature review of risk associated with healthcare ventilation concluded that—

  > "Improper design and poor maintenance of the ventilation systems have repeatedly been identified as contributing factors for outbreak".

HPS state that following these findings one of the recommendations made regarding ventilation in healthcare settings was—

> "Current guidance should be followed (i.e. HAI-Scribe and the Scottish Health Technical Memorandums)"

[2] Question 4: Phillip Couser referenced that HPS had conducted literature research on the issues and incidents internationally on healthcare associated infections that had been attributed to the built environment. It would be helpful to have further information on the findings from that literature review. (Col 18)

- HFS (in response to question 9[3]) explain that boards can monitor and manage compliance in relation to Estates issues areas using SCART (Statutory Compliance Audit and Risk Tool). HFS, however state they do not monitor Boards usage or assessment performance on SCART. Boards utilise the information obtained from SCART to inform their Property and Asset Management Strategy submission, which HFS use to inform NHS Scotland Asset and Facilities report.

- HFS (in response to question 10[4]) referred to the Healthcare Associated Infection System for Controlling Risk in the Built Environment (HAI-SCRIBE). HFS stated it does not monitor Boards usage or assessment performance on HAI-SCRIBE or other risk assessment. HFS manage the NHSS design assessment process (NDAP) which requires boards to make a written statement or evidence that HAI-SCRIBE is undertaken as appropriate to the scale/complexity of the project.

Our concern is the onus is placed on NHS boards to ensure compliance with this guidance. There does not appear to be an external assessment made of whether this is being achieved. Also, when the guidance is not being adhered to by NHS boards there does not appear to be a route for this to be addressed to ensure compliance is achieved. This is also borne out in the evidence received by the Committee from senior infection control personnel within the NHS who state that they have raised concerns on numerous occasions but they were not listened to or they were not acted upon. Some felt their only option was to whistleblow. Are these concerns you also share? Do you consider there should be a greater role to assess and ensure NHS boards are performing and delivering against relevant guidance and standards? Do you think there should be another route by which staff can escalate concerns outwith the NHS board?

Do you believe consideration should be given to greater monitoring by external bodies of NHS boards usage of HAI-SCRIBE, SCART and other risk assessment processes or do you believe the current process enables issues to be identified and where required improved?

During our evidence gathering we considered there to be a lack of transparency and clarity regarding the roles and responsibilities of HSE, HIS, HFS and HPS. We had to request further written information from these organisations to determine who was responsible for specific aspects with regards to health hazards in the healthcare environment. Do you believe roles and responsibilities of these organisations could be made clearer? Do you think consideration should be given to one external

[3] Question 9: Jim Miller said the organisation "presumes that there is compliance with the guidance" and aside from cleaning standards and decontamination of medical instruments, compliance with other areas refers back to the boards' internal management structures (Col 17). Do you know what the NHS boards do to ensure compliance with the rest? What gives confidence that best practice is being implemented across the country

[4] Question 10: Jim Miller referred to the Healthcare Associated Infection System for Controlling Risk in the Built Environment (HAI- SCRIBE) (Col 13). Is there currently any monitoring by Health Facilities Scotland of a board's usage of HAI-SCRIBE and an assessment of their performance against this tool?

organisation having responsibility for monitoring the adequacy of NHS board internal controls?

Relationships between clinical staff and estates staff

The inspection report from HIS on the QEUH highlighted that it was made aware of some challenges in the working relationships between senior staff in the infection prevention and control team and the estates department. The Committee also received written evidence about the concerns of clinical staff not being acted upon. Are the challenges in the working relationships at QEUH unique or are they found in other board areas?

As HIS does not routinely consider the work of estates departments during its inspections what tools and intelligence do you use to assess whether other estate departments across NHS Scotland are operating effectively? If there are concerns with working relationships between departments within an NHS board what steps would you expect an NHS board to take to address these?

When do you consider it appropriate for you to be made aware of concerns and take an active role in ensuring they are addressed?

Plant rooms

One of our written submissions stated that plant rooms at one hospital were infested with pigeons and cockroaches because 'no-one seems to have been designated responsible for cleaning and/or monitoring these areas.'

Our inquiry has highlighted that plant rooms are not subject to regular routine inspection. HIS inspections focus on the cleaning specification in clinical areas. HIS told us that if concerns were raised about a plant room their inspection team would have the ability to access the area, however they would be likely to refer it to others with appropriate expertise.

The Committee finds it hard to understand why areas such as plant rooms would not be subject to more rigorous cleaning and monitoring. While HIS assured the Committee it would look at plant rooms in response to intelligence about any issues, we believe that due to the hidden nature of such areas, it is unlikely such concerns would ever come to light. As such, it is clear plant rooms must become routine areas for inspection given the issues raised about their cleanliness. We are also concerned about the suggestion that it can be unclear who within a hospital has responsibility for their maintenance. We consider clarity of responsibility for and inspection of these areas should be addressed as a matter of priority. Do you agree with this view and how quickly could plant rooms become part of regular routine inspections?

If HIS is the most appropriate organisation to take on responsibility for inspection of these areas how can it be ensured they have the appropriate expertise to conduct these types of inspection?

Maintenance

The HEI report on the QUEH details a list of around 300 maintenance jobs for a hospital that is less than four years old. HIS told the Committee “Any such backlog could pose a risk to patient care”.

In its most recent overview report on the NHS in Scotland Audit Scotland detailed that the backlog of maintenance for the whole NHS estate in 2017/18 was costed at £889m.

What assurances can you provide that NHS boards are giving the maintenance backlog the priority and funding it requires?

Serious Adverse Events

An issue explored in our inquiry The Governance of the NHS in Scotland – ensuring the delivery of the best healthcare for Scotland was the investigation of serious adverse events (SAEs). An adverse event can be defined as an event that could have caused, or did result in, harm to people or groups of people.

We stated in our Governance Report there was a need for greater consistency on how SAEs are dealt with. The arrangements for recording SAEs present a key tool for managing risk. We called for centralised reporting of SAEs. We stated that it was important to be able to identify in a timely manner similar SAEs which have occurred across boards, and to avoid the build-up of systematic issues which affect the provision of safe and appropriate care.

Have recent events at the QEUH been recorded as SAEs? What changes have been made to reporting monitoring and oversight of SAEs since we made our recommendations in our Governance report in July 2018 and what improvements have these changes made to the operation of the current system?

Specialist expertise

Another recurring theme has been whether the correct expertise is available and is being utilised to assist in the prevention and identification of health hazards in the healthcare environment.

NHS Fife raised concern that a restructuring of microbiology training (whereby trainees now undertake joint training in microbiology and another speciality) had resulted in significantly less training in infection control. NHS Fife were concerned this could result in individuals being less keen to take on infection control responsibilities as a consultant. What steps can the Scottish Government take to ensure infection control is an attractive and appealing role for prospective and new NHS staff?

NHS Fife also highlighted concerns with its current vacancy for a consultant microbiologist. How widespread are staffing shortages in infection control teams and microbiology across NHS boards?

The management of water and ventilation systems can require authorising engineers with highly specialist technical skills. We learnt this expertise was currently being bought in by NHS boards and HFS on a case by case basis.

HFS suggested NHS boards were calling for a team of authorising engineers to be employed hosted by HFS and available to be utilised by individual NHS boards. Ensuring there is appropriate access to this expertise is important. Do you believe employing a team of authorising engineers at a national level will improve access to this expertise for individual NHS boards, reduce risk and be more cost effective?

Building design

One issue discussed during our evidence gathering has been how infection risk is considered in the design and commissioning of new health facilities.

HFS explained it had no formal compliance or assurance role in building design and commissioning but operated in an advisory capacity.

One of the anonymous submissions we received stated that current systems and processes for managing environmental hazards were inadequate. Infection control personnel were either side-lined during design and planning of health facilities or advice was circumvented due to ignorance, time and resource implications.

The inclusion of infection control staff in the selection of equipment was also raised as an issue. For example, taps, sinks, drains and ventilation systems were cited by two submissions as being of particular importance for minimising infection (ref A2 and A3). In relation to ventilation systems specifically, submission A2 wrote:

> Inadequate ventilation systems have been installed in new build hospitals; these are not fit for purpose for the specialist patient groups they are intended for, e.g. bone marrow transplant and haematology wards.
>
> And:
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> Likewise, the adoption of positive pressure ventilation rooms (PPVL) room design throughout a number of Scottish hospitals is inadequate to protect isolated immunosuppressed and/or vulnerable patients against airborne contamination from both inside the unit and outside the hospital, e.g. other patients; building and renovation.

Submission A2 also states:

> There is plenty of evidence and guidance for appropriate installation, maintenance, decontamination and monitoring of all of these [plumbing, ventilation and cleaning], so there is concern that recent new builds appear to have defaulted on vital systems.

We find these accounts deeply concerning. Will the Scottish Government undertake a review of recently built facilities to assess their compliance with the appropriate installation, maintenance, decontamination and monitoring of vital systems?

Will the Scottish Government also undertake a review to ensure all high risk clinical areas, in both new and existing facilities, have the appropriate equipment for minimising infection?

Infection prevention must be a priority in the design and commissioning of new health facilities and equipment choices. However, the BMA highlights that where infection control staff are involved in the design of a building, they may not have enough time or experience to optimally deliver this input. This is supported to some extent by submissions which highlight staffing shortages in infection control and microbiology, as well as a lack of training for more general staff. The BMA suggests creating a national expert service to provide infection control oversight of new building projects. They also suggest that there should be greater standardisation of new facilities which comply with infection control standards to avoid repeated interpretations of guidance and variation. What further steps can be taken to ensure infection risk prevention is given the appropriate prominence and value required?

Does the Scottish Government see merit in the suggestions for a national expert group in infection control and less variation in building design? Is there also merit in strengthening the role of HFS to ensure infection control is not side-lined during the design and commissioning of buildings?

Cleaning

Some of the submissions we received highlighted the importance of adequate cleaning in controlling pathogens in the hospital environment. However, we heard concerns about the adequacy of cleaning in Scottish hospitals and the resources available to it.

For example one submission we received listed several concerns:

-visual inspections of rooms i.e. if the room looks visually clean then cleaning is not carried out

-daily cleaning is only carried out in ‘high risk areas’ but the author contends that daily cleaning should be conducted for all frequently touched surfaces such as bedside tables

-the use of microfibre mops do not remove dirt but just re-disperse it elsewhere

-environmental sampling suggest that domestic staff have not been trained properly in the use of mops/wipes and the use of cleaning fluids and disinfectants.

This submission also contended that failing to maintain the domestic workforce increases the risk of HAI:

“While management of water and air require urgent attention, cleaning remains the ‘Cinderella’ of infection control.”

We note the HIS report on the QUEH found the hospital had a 14.5% absence and 10% vacancy in domestic staff.

Cleaning is integral to infection control and prevention. Do you consider cleaning the ‘Cinderella’ of infection control? What assurances can you provide that domestic services in Scottish hospitals are adequately resourced?

HIS told us that its recent work had highlighted that sometimes there was a lack of clarity regarding where accountability and responsibility lay for conducting certain maintenance and cleaning tasks. HIS gave the example of the recent increase in

single rooms in new hospitals resulting in more sinks and toilets. HIS explained when these were not being used it was important to ensure someone was responsible for the flushing regime. How is it ensured that NHS boards are keeping their operating procedures up to date for new hospitals? Should this be reviewed centrally and what focus is given to this area in Ministerial annual reviews of NHS boards?

We explored in follow-up correspondence with HFS and HIS (question 16[5]) concerns around a discrepancy in reports of cleaning compliance from HFS and HIS. Whilst Facilities Monitoring Reports from HFS show a high level of compliance with the cleaning specifications across all hospitals, the reports from HIS which cover the same hospitals and time period show a much lower level of compliance. HIS explained that the information referred to relates to different types of monitoring activity by HFS and HIS. However, do you agree that such a difference in assessments undermines confidence in the reporting system?

Whistleblowing

The Committee received submissions which raised a number of concerns about the NHS estate and its role in infection control. Some of those submitting to us wished to remain anonymous, indicating they were not comfortable speaking out.

This reflects the concerns we first raised in our Governance Inquiry Report in July 2018. Our report emphasised the need for a culture of openness and transparency with mechanisms in place for staff to raise concerns in an environment where the support and guidance offered to NHS staff is both valued and trusted.

One of the submissions to our current inquiry stated that Microbiologists in Glasgow highlighted problems and concerns with the building in 2014 and later in 2015. However, in 2017 they raised their concerns via whistleblowing as they felt they had no alternative. This demonstrates that there are instances where NHS staff are not being listened too.

We noted in our Governance Report the forthcoming post of Independent National Whistleblowing Officer had the potential to make a valuable contribution to achieving a cultural change in how the NHS in Scotland treats whistleblowing. This post is still to be created. Please provide an update on when it is expected to be operational and what changes you expect this post to deliver for whistleblowers.

HIS highlighted that they host the whistleblowing helpline, however, as noted in our NHS Governance report this is primarily an advice line for staff and not an investigative line. We still believe that the introduction of a reporting line for NHS whistleblowers would further enhance the external support services available to NHS staff. This recommendation was previously rejected by the Scottish Government. Given the ongoing concerns that current mechanism and procedures are proving insufficient to support whistleblowers. We again recommend its implementation.

[5] The Committee has also received concerns around a discrepancy in reports of cleaning compliance from HFS and HIS. The correspondence states that the Facilities Monitoring Reports from HFS show a high level of compliance (90%+) with the cleaning specification across all hospitals, while the reports from HIS which cover the same hospitals and time period show a much lower level of compliance. Can you please comment on this and if appropriate explain this apparent discrepancy?

Other healthcare environments

Our inquiry remit is explicit in its reference to health hazards in the 'healthcare environment' not just the hospital environment. We also suggest recent events in hospitals regarding healthcare hazards should lead the Scottish Government to consider the current practice and assessment of performance in dealing with health hazards in all healthcare environments (including care homes). We would welcome your views on any reasons why there should be differentiation between sites.

Independent Review of Queen Elizabeth University Hospital

We agree with the sentiments expressed in your Ministerial Statement to the Scottish Parliament on 26 February regarding the importance of ensuring the right clinical experts were appointed to Chair the Independent review of the Queen Elizabeth University Hospital.

You confirmed in a letter to the Committee on 5 March that Dr Brian Montgomery and Dr Andrew Fraser had been appointed as Chairs to the review group.

Your letter details the wealth of experience both will bring to the role, we also note both are former NHS Scotland employees with Dr Montgomery also having worked in recent years with NHSScotland. How will you address and ensure concerns that these close ties to the NHS in Scotland cannot raise any questions about the independence of the review and its potential findings?

Also given neither Chair has direct clinical expertise in the field of infection control or microbiology what expectations do you have that this expertise will become an integral part of their review?

In addition, in a PQ you stated that the independent chair will soon be appointed on the basis of their proven expertise in construction design and knowledge of the health care system. As far as we are aware, neither chair has expertise in construction design. Can you explain why a candidate with suitable experience in construction was not appointed? How will the review access such expertise?

We recognise it is important to ensure a review of this nature is given the appropriate time to gather evidence and formulate its findings. However, given the importance of the issues they are investigating and the potential changes the review findings could bring to current practice, what timescales do you consider would be appropriate for such a review to be concluded?

Given this review will consider building design, commissioning and construction what actions are you planning to implement to ensure ongoing proposals for new hospitals or facilities in Scotland can be informed and incorporate the reviews findings?

What interim steps are expected to be taken by the Scottish Government in advance of the review making its recommendations or are all potential changes in policy approach predicated on what the review concludes?

It would be helpful to receive a response to this letter by Tuesday 14 May to inform our consideration of next steps for our inquiry.

Yours sincerely

Lewis Macdonald

Convener, Health and Sport Committee