OFFICIAL REPORT
AITHISG OIFIGEIL

Health and Sport Committee

Tuesday 19 March 2019

Session 5

The Scottish Parliament
Pàrlamaid na h-Alba

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HEALTH AND SPORT COMMITTEE
9th Meeting 2019, Session 5

CONVENER

*Lewis Macdonald (North East Scotland) (Lab)

DEPUTY CONVENER

*Emma Harper (South Scotland) (SNP)

COMMITTEE MEMBERS

*George Adam (Paisley) (SNP)
*Miles Briggs (Lothian) (Con)
*Alex Cole-Hamilton (Edinburgh Western) (LD)
*David Stewart (Highlands and Islands) (Lab)
*David Torrance (Kirkcaldy) (SNP)
Sandra White (Glasgow Kelvin) (SNP)
*Brian Whittle (South Scotland) (Con)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Iain Brodie (Health and Safety Executive)
Phillip Couser (National Services Scotland)
Alastair Delaney (Healthcare Improvement Scotland)
Jim Miller (National Services Scotland)

CLERK TO THE COMMITTEE

David Cullum

LOCATION

The James Clerk Maxwell Room (CR4)

Scottish Parliament

Health and Sport Committee

Tuesday 19 March 2019

[The Convener opened the meeting at 10:02]

Subordinate Legislation

National Health Service Superannuation and Pension Schemes (Scotland) (Miscellaneous Amendments) Regulations 2019 (SSI 2019/46)

The Convener (Lewis Macdonald): Good morning and welcome to the ninth meeting in 2019 of the Health and Sport Committee. I ask everyone in the room to ensure, please, that their phones are off or on silent. Although it is acceptable to use mobile devices for social media purposes, I ask people not to photograph or record the proceedings. We have received apologies from Sandra White MSP.

Agenda item 1 is consideration of the National Health Service Superannuation and Pension Schemes (Scotland) (Miscellaneous Amendments) Regulations 2019. The Delegated Powers and Law Reform Committee considered the instrument, which is subject to negative procedure, on 5 March 2019, and the committee determined that it did not need to draw the attention of the Parliament to the instrument on any grounds within its remit. The instrument relates to pensions in the national health service, among other things. I invite Dave Stewart to comment on the instrument.

David Stewart (Highlands and Islands) (Lab): Although the issue might seem quite technical and remote, I am quite concerned about the instrument. For members who have not followed the matter in detail, the key issue is that employer contributions will rise by 6 per cent from next month, because of the change in the discount rate. The lower the rate, the higher the level of funding that is required, and the rate is dropping by 0.4 per cent.

The key issue is whether the Scottish Government will receive a full Barnett consequential as a result of the change. I am sure that members will all have seen the correspondence, particularly from general practitioners and their practices. We are all concerned about GP recruitment and retention, and I am concerned that the instrument will particularly affect rural areas. The effect could be redundancies for GP staff. The other issue—this happens across Scotland—is that some general practices are reverting to health board control, which will result in a major problem in relation to recruiting and retaining GPs.

The issue is, of course, wider than that. My colleague Miles Briggs might want to talk about Children's Hospices Across Scotland. There are particular issues for non-NHS employers, such as hospices, charities and universities. Just the other day, CHAS wrote to us to say that the changes will cost it an extra £350,000 per year, which is equivalent to the cost of nine full-time nurses.

I appreciate that the issues are all reserved, but they have a huge effect on the Scottish Government and on health. To set the scene, I should say that the other factor that is affecting GPs and consultants, in particular, is the changes to the lifetime allowance, which is a United Kingdom pensions restriction. Basically, the changes will have a longer-term adverse tax effect on individuals who go through the ceiling. Having gone round GP practices in the Highlands and Islands, I think that that is certainly affecting the ability of GPs and consultants to work beyond the age of 55 without reducing their hours. As we know, we desperately need full-time as well as part-time GPs.

I suspect that the committee cannot do much about the issue, but it is really important that we highlight it. After all, we can all see what is coming. We are facing a GP crisis in Scotland, and the employer contributions, the lifetime allowance and other tax matters that I will not bore the committee with are going to affect that situation.

I am also very concerned about the effect not just on GPs but on non-NHS employers, particularly hospices. I am sure that we all have hospices in our areas, and I know that the hospice in Inverness in my region does a fantastic job. I am very concerned about the extra costs. I also think that the issue is treated slightly differently in England.

I simply put those points on the table just to highlight my real concerns about recruitment and retention.

The Convener: Your points have been well made and are well understood. As we have until 29 March to report on the instrument, we have some flexibility to continue our considerations and to seek further information.

Miles Briggs (Lothian) (Con): I want to reinforce what our resident pension expert has just said. It is important that we take some time out on the matter, given the precedent that was set in 2004 with regard to the proposed increase at that time and the setting aside of additional funds to support non-NHS direct employers. I understand that England and Wales will be included in the

funding that is provided to ensure that the additional costs are taken into account, but we have not been able to get clarity on that from either the United Kingdom or Scottish Government. I want us to take a bit more time to see whether we can get those assurances, perhaps before next week's meeting.

Alex Cole-Hamilton (Edinburgh Western) (LD): I, too, support David Stewart's comments. The issue has been raised independently with me by constituents and GP practices, and I am anxious about simply nodding the instrument through without having some understanding about where the money for it is expected to come from.

The Convener: I see heads around the table nodding at that, so I propose that we write to the Government, asking for reassurances to be provided as urgently, as early and as far as it can on how the costs will be covered to mitigate the impact of the changes on recruitment and retention in general practice and more widely. We will return to the matter next week with, I hope, that information from the Government.

Health Hazards in the Healthcare Environment

10:07

The Convener: Agenda item 2 is an evidence-taking session for the committee's inquiry on health hazards in the healthcare environment. As colleagues will know, we have established the inquiry as a result of issues that have arisen at the Queen Elizabeth university hospital since its opening in 2015 and which have led to concerns about patient safety.

On 29 January, the committee agreed to have an inquiry into health hazards in the healthcare environment more generally across Scotland. We have received 27 responses to our call for written views, and today we will have an oral evidence-taking session, after which we will consider our next steps.

I am pleased to welcome to the meeting Iain Brodie, who is the director for Scotland at the Health and Safety Executive; Alastair Delaney, who is the director of quality assurance at Healthcare Improvement Scotland; Jim Miller, who is the director of procurement in commissioning and facilities at NHS National Services Scotland, and who has responsibility for Health Facilities Scotland; and Phillip Couser, who is the director of public health and intelligence at NHS National Services Scotland, and who has responsibility for Health Protection Scotland.

I want to start with a question for Philip Couser and, perhaps, other colleagues. How far is it possible to judge from health protection systems and management the current level of morbidity and mortality associated with the built environment in the national health service in Scotland?

Phillip Couser (National Services Scotland): The first thing to say is that we are dealing with a situation that is very dynamic, and not just at this point in time. It will always be dynamic. The nature of the threat from healthcare associated infection changes over time. A degree of evolution is inherent in any macrobiology, and what we do with patients and what we do with the built environment change over time.

It is important to look at the longer term, and Scotland has a very strong track record in the longer term. We have made significant advances—certainly over the past 10 years—in reducing the burden from healthcare associated infection, and there is no evidence at this point to suggest that we are seeing any significant increase in that. Obviously, there have been some significant high-profile and tragic incidents of late, which have merited today's session, but in the

broader picture there is nothing to suggest that there is any significant change or increase in that as a whole.

It is worth saying that Scotland does very well in international benchmarking, and not just over time. We can say that with a degree of confidence, as the monitoring systems in Scotland are in some ways a lot more comprehensive than those in other countries. Even in the UK context, they are more comprehensive. We undertake an extensive point prevalence survey every five years, and we have an annual report and quarterly updates. If we look at those in the round, we see that there is no suggestion of significant change. That is not to say that there might not be such change—there is always the possibility that things could go in the wrong direction—but there is certainly no indication of that at this point.

The Convener: The report that you provided to the committee suggests that 48 healthcare associated infections arose from the healthcare environment over a three-year period. Do you believe that that captures the scale and the range of issues that are arising?

Phillip Couser: To be honest, it is difficult to be precise on that. How can we define whether an incident originated from the healthcare built environment? It depends on how we want to define that. Is the incident to do with an inherent design fault or the way that the built environment has been used or maintained? I have asked about what proportion the 48 incidents are of the overall number of incidents—the answer is about 10 per cent. However, others might take a different view and say that other incidents might be attributable to the built environment, because we can never isolate and say that the incident happened solely because of it. There will always be a maintenance and process element, so it is difficult to be precise, but the team in Health Protection Scotland believes that 48 is the best estimate of the number of incidents that are directly attributable to the built environment, and that that is around 10 per cent of the total.

The Convener: Your published report on the Queen Elizabeth university hospital highlighted issues relating to water systems and the safety of water. Some of our witnesses have suggested that ventilation systems and cleanliness and cleaning rotas and systems are also significant. Can you estimate what proportion of the 48 identified cases are water based, what proportion are ventilation based, and what proportion arise from cleaning or cleanliness issues?

Phillip Couser: No, but we can certainly provide information on that if the committee wants it.

The Convener: That would be helpful. What is your general opinion?

Phillip Couser: Because of incidents involving water and ventilation, work has been done to look at broader international research on the consequential burden of water and ventilation systems.

George Adam (Paisley) (SNP): You said that Scotland has had a very strong record on infection control, particularly over the past 10 years, and that we do really well in international benchmarking. My question is quite simple. Compared with the rest of the developed world, what does Scotland do differently in infection control? Are we doing better in certain areas, or are we on a par with the rest of the developed world?

10:15

Phillip Couser: According to the figures, we have a very strong record at the moment. I have some figures with me that look at the European picture, and we are right up there among the very best, on a European scale.

On what Scotland does well, it is about how the different agencies work together, which is pertinent to this discussion. A lot of that goes back to events such as the one at the Vale of Leven hospital, and lessons that were learned from that. Health Protection Scotland works closely with Healthcare Improvement Scotland through things like the Scottish patient safety programme, advising on different bundles of care improvement around healthcare associated infections. The work of the Scottish patient safety programme is well known. One of the key factors is how we have been able to come together across agencies to address this issue.

There is another factor. I mentioned the extensive monitoring and reporting that we insist on from boards. Reporting is mandatory, not optional. We refer to the healthcare infection incident assessment tool in our evidence. Boards have to submit that, and we have tightened that up.

We have created a learning system, if you like. With regard to recent incidents connected with water, we already have in place an action plan. Instead of waiting until there has been an extensive formal review, we get on and put things in place. Again, the work is multi-agency; it is not Health Protection Scotland sitting in isolation, but Health Protection Scotland working with Health Facilities Scotland and Healthcare Improvement Scotland.

George Adam: You said that you had some figures with you that compare Scotland to the European picture.

Phillip Couser: I do, but they are difficult to put in context. However, we can provide those figures.

George Adam: That would be excellent. Thank you.

Emma Harper (South Scotland) (SNP): I am interested in the complex issue of infection control. There are moulds, bacteria, and viruses, and with the standard isolation precautions and how we manage modes of transmission, it is a complicated issue. Healthcare infection prevention is a difficult task, so how do the agencies work together to ensure that the expertise is shared, that there is crossover of knowledge and that you support one another?

Alastair Delaney (Healthcare Improvement Scotland): In the inspections that we do, for example, it is important that we use the standards that are created by Health Protection Scotland to guide what we look at. If we need specialist expertise because we have come across certain issues in a particular place, we will collaborate with that specialist expertise so that we can understand those issues better, work together on improvement programmes thereafter, and provide recommendations and advice to a board about how to improve.

It is important to understand agencies' interrelationships. We do not all have to be in the one place to do that, but it is essential that we share information, intelligence and expertise so that we can work together when we identify something.

Phillip Couser: Health Protection Scotland has a role as a focus for knowledge about the microbiology in particular, given the complexity that Emma Harper talked about. We have a critical mass of knowledge about that and about best practice in the healthcare environment. We have a team with considerable expertise. We have a number of nurse consultants who are well respected in the infection prevention community and who are seen as the go-to people for advice. One of our strengths is that we have that critical mass of knowledge.

The Convener: Iain Brodie, the Health and Safety Executive sits a little to one side of the Scottish Government agencies sitting beside you. Could you explain how and when you get involved in this topic?

Iain Brodie (Health and Safety Executive): First, I have something to say in answer to the previous question. We have agreements in place with Health Improvement Scotland, for example. You are right to say that healthcare acquired infection is a very complex area, and we need to make sure that, on a case-by-case basis, we either collaborate and co-operate or respect each other's boundaries, so that we can undertake our work.

Our written submission summarised our position as a Great Britain-wide regulator and our interest in health and safety in the workplace and work-related health and safety across the board.

When it comes to healthcare acquired infection, our remit, our policy and the application of our law are such that we would not normally delve into matters of clinical or patient care—we do not stretch our legislation into aspects of clinical judgment and care, although others are, obviously, involved in that arena.

On the issue of regulatory remit, we recognise that other regulators are often best placed to deal with certain matters, including healthcare acquired infection, hence the agreement that is in place with Health Improvement Scotland, which is probably the most pertinent point in this discussion.

The Convener: Issues to do with the built environment are central to Jim Miller's role. How does your remit dovetail with those of your colleagues at the table?

Jim Miller (National Services Scotland): I will build on colleagues' comments. Health Facilities Scotland is an advisory body that sits in National Services Scotland, working with health boards to provide a range of technical advice and guidance, some of which is very specific to aspects of estates and facilities maintenance. Some of that is done in partnership with Health Protection Scotland and/or other bodies where there is a potential overlap between the management and use of the estate and the creation of the built environment.

Emma Harper: It is important to make sure that people understand that managing hospitals is complex. My background is clinical education—I was a nurse. How do you support the building of a new hospital? Are we putting in place the right equipment, supplies and environment? How much influence do you exert when we are working with contractors and building a new hospital such as the Dumfries and Galloway royal infirmary in the south of Scotland?

Jim Miller: As I have mentioned, Health Facilities Scotland is an advisory body. The decision to commission any sizeable hospital would be for the territorial board. Such commissions do not happen often. As you have indicated, once they are in place, they provide a very complex built environment. I think that the boards draw on a wide range of experience and expertise wherever possible.

My organisation provides advice collegiately through other senior estates and facilities colleagues in health boards and infection control colleagues. That is primarily done through the Scottish health and technical memoranda, which are a range of documents that provide current guidance reflecting best practice across a range of the environmental conditions. The memoranda tend to be derived from the UK-level guidance but made pertinent to the particulars of the Scottish environment.

The Convener: Does Phillip Couser want to add anything?

Phillip Couser: Health Protection Scotland works very closely with Health Facilities Scotland and contributes to the development of the guidance.

David Stewart: Good morning, panel. I have a few questions on monitoring and surveillance. Can you confirm or deny that the only routine proactive testing for contamination of the physical environment is for legionella?

Jim Miller: I am sorry, but I am not able to answer that—I do not have that information.

David Stewart: Anyone else?

The Convener: The question was based on a submission from one of the NHS territorial boards.

David Stewart: The question arose from evidence that we received from NHS Fife, which has confirmed that, in its view, the only routine proactive work that is being carried out is for legionella. I was trying to find out whether that is unique to NHS Fife, whether the Scottish Government has a view on this matter, and whether more proactive work is being done elsewhere. If panel members want to write to the committee with further information, that would be useful.

Iain Brodie: Legionella is obviously a specific organism that is prevalent in healthcare and elsewhere. We enforce a specific set of standards linked to an approved code of practice for the management of legionella in water systems. We would therefore expect legionella to be monitored. It is one of the particularly unique micro-organisms that the committee is interested in that we have an interest in, so it is monitored.

We did some research before coming here today and found that we do not have a record of any legionella outbreak that we have had to intervene on in NHS healthcare premises in Scotland.

David Stewart: Thank you. Convener, I will move on with a question that might get more feedback from the panel.

Are boards aware of contamination in building services only when patients are infected?

Phillip Couser: From a Health Protection Scotland perspective, yes.

On your previous question, which I am giving some thought to, I will need to check but, as far as I am aware, we do not receive any reports or data from proactive testing of the environment for micro-organisms of any particular sort.

The data that Health Protection Scotland receives is about incidents involving patients.

David Stewart: That is useful. That was the point that I was trying to get to. Do any other witnesses wish to contribute?

Alastair Delaney: I will just say that we use that data to do proportionate scrutiny thereafter. We have access to the national data that has been mentioned, but we also request local data when we have to target an area, and it helps us to target where we go.

David Stewart: I am sure that the witnesses can pick up the theme of my questions. It is about being proactive and not just waiting until there are outbreaks.

Phillip Couser: I will just make one correction, if I may. You could look at the point prevalence survey that is done every five years. The methodology for that is different. It is focused on surveying the incidence of potential infection in patients. That is more proactive, and it is a comprehensive survey that is undertaken every five years. It also has significant influence in shaping policy going forward. I just wanted to make a point of clarification that there is a proactive element to that survey. Again, it focuses on infection on the patient and not necessarily on infection from which a patient is suffering—most of us in this room will have a lot of the micro-organisms that cause infection on us today. It is the people who are susceptible that have issues with such infection.

The Convener: A witness has made the point to the committee that, although point prevalence studies are valuable, they do not capture the infection burden of outbreaks because outbreaks are, by definition, episodic and therefore the studies give an underlying status rather than dealing with high hazards. Do you acknowledge that?

Phillip Couser: That is correct. I mentioned the health infection incident assessment tool. Boards have to report if there is an outbreak. We have tightened things up since 2016. There are different categories—green, amber and red—and a classification system that goes with that tool, depending on the severity of the outbreak. We tightened that up in 2016 so that even green-rated

HIIAT assessments are reported. That all goes into the quarterly figures that we report and we have our annual survey, which Healthcare Improvement Scotland uses to guide its inspection regime.

David Stewart: Thank you. I will move on to a question that touches on the point that you have just made. Can surveillance systems be used to prevent outbreaks and infections from incurring in the first place?

I can see that I am doing really well with stumping the panel today.

Phillip Couser: That question would have to be put to a deep expert in the topic. It is outwith my technical knowledge. It is a complex question, which I think will have a complex answer. I am not in a position to give you an answer today, but I can certainly take the question away, and we can provide a view on the matter, if that would help the committee.

10:30

The Convener: When you said that we would need to ask someone with deep knowledge, do you mean someone with understanding at the microbiological level? What is it that you do not have that we need to access in order to get an answer?

Phillip Couser: Let me be clear. Is David Stewart asking whether there is a proactive testing regime that could be put in place to control or prevent outbreaks?

David Stewart: Yes. In simplistic terms, the first issue is the construction of new hospitals, which members have mentioned. Are we getting that right? What is the world evidence on the matter?

Secondly, what is the surveillance system like? The panel has touched on the fact that, by definition, many people in hospital have impaired immune systems and are potentially vulnerable to infections that might not affect those of us in this room, who perhaps have stronger immune systems.

When we put all those things together, is there more that we can do proactively to prevent outbreaks and prevent death and injury in hospitals? I suppose that that is my key point.

Phillip Couser: There certainly is and always will be more that we can do because, although we should aspire to zero incidence, the reality is that that is not deliverable, given that the nature of the threat is continually changing.

There is no question but that, when we look at the design of hospitals—I say "we"; Health Protection Scotland provides expert input, but the provision of guidance in that regard is a collective exercise—we always work closely with Health Facilities Scotland to see how we can improve.

There is therefore already an element of proactivity. I suppose that I am slightly confused by the question, because the proactive influencing and shaping of guidance goes on all the time. For example, I mentioned that we are already taking the learning from issues to do with water systems; we did a literature review of water systems, reports were produced and there is now an action plan in relation to changing the guidance. However, I think that you are suggesting that there should be a more active, routine, forward-looking surveillance element—

David Stewart: Yes. Sorry for interrupting, but I want to use an analogy from another sphere. I have been interested in fire prevention for years and, when we look back to Grenfell and before that, we find that many legislative changes have happened after tragic fires in which people died. For example, Government required sprinkler systems to be installed in homes for the elderly to prevent further tragedies. In the sphere of contamination, is there something that we can do now, without waiting for tragedies in which people die or are injured? Can we look proactively at the current situation and design our hospitals better, with better systems?

Phillip Couser: I will try to be more specific. We talked about the design and development of guidance and we touched on the inspection regime, which is taken forward on the back of our monitoring of the data—Alastair Delaney might want to talk about that.

We talked about legionella, for which there is a testing regime. This is the bit that I, personally, do not know enough about, because I am not a consultant nurse who works in infection control. I do not know what the literature says about the ability to test the environment—and when I say "test the environment", I do not mean testing for the burden on the individual patient, which we do through point prevalence; I mean testing the built environment through some testing regime. I do not know the answer to that question.

David Stewart: Perhaps I can ask a final question, which might shed more light on this theme.

Is there any system in place that can pick up an invasive fungus such as Cryptococcus in the ventilation system, before patients become infected?

The Convener: Clearly, infection is Alastair Delaney's job. Are you aware of anything that would pre-empt such situations and which might assist in avoiding future infections, Alastair?

Alastair Delaney: Again, I think that you need specialist advice regarding the particular systems that can be put in place.

In a more general sense—I do not know how helpful this is, but bear with me—with regard to the infection evidence that we have seen over the past 10 years, after the situation at the Vale of Leven and the introduction of inspections, we have found a lot going on, and there have been significant improvements over that period. That includes improved surveillance of micro-organisms such as MRSA and Clostridium difficile. There is improved monitoring at a local level, and that has resulted in significant reductions in infection over a period of time. The evidence shows that there have been significant improvements. However, there are always things that can be done.

For me, the important point is that we have to build up the ability to monitor, to carry out surveillance and to take action at the local level. You cannot inspect that in; you can only use inspection to encourage it and to give you an overall picture. Over the past while, what has been important is the work to encourage boards and others to develop their surveillance and monitoring systems so that they are on top of the situation day in and day out, and, therefore, are able to take action when an incident happens.

As for the technical question about what systems would be required, I am not a specialist and cannot answer that.

Jim Miller: Although HFS is only an advisory organisation, it provides territorial boards with a range of monitoring tools. One that springs to mind is the healthcare associated infection system for controlling risk in the built environment—HAI-SCRIBE. Effectively, it facilitates collaboration between facility staff within the territorial board and infection control staff. It poses a series of questions that are self-assessed. That results in a list of recommendations that can be prioritised and which boards can share with other boards, if they want to. There is an opportunity for that sort of best practice to be provided. HPS and HFS contribute to the development of that tool, which is provided to all NHS boards.

Emma Harper: I have a brief supplementary question. We already have processes in relation to certain issues—for example, not allowing seagulls to nest near a new dialysis unit that is being constructed. With both announced and unannounced inspections, you examine the environment and factors such as hand washing, using direct observation and peer review. My understanding is that those processes, which relate to infection control, are already there. Is that correct?

Alastair Delaney: From an inspection point of view, we believe that the processes are in place. However, when we visit a hospital, we do not necessarily examine everything every time. We use intelligence and evidence to target what we look at, because hospitals are big, complex organisations. We try to take a broad sweep. We are looking to be given assurance by the hospital and the board that they are taking these issues seriously and that the systems and governance are in place. We sample beyond that, obviously, to directly check whether those things are happening on the ground or whether, despite the fact that the policies are nice and shiny, they are not happening. From that, we can identify recommendations for improvement, as we have on a number of occasions recently. We hope that that will improve the quality of safety and care for patients.

The Convener: The issue of who has responsibility for plant rooms in a hospital has been highlighted to us. Are plant rooms subject to regular inspection as part of the inspections that you carry out?

Alastair Delaney: Not directly, but, if it was identified that there might be issues with a plant room, the team would have a look, although that would involve a general decision about whether it was safe and clean. If there was an issue that required specialist expertise that we did not have in the team, we would hand that to others.

Miles Briggs: Good morning, panel. I have a brief question on a comment that was made earlier. What is the rationale behind the halving of the number of safety and cleanliness inspections since 2014?

Alastair Delaney: It is not so much a rationale as realpolitik, if you like. We have had a number of issues to deal with. First of all, when I joined the organisation 18 months ago, I undertook a review of our staffing and structure, and I found that we had a number of vacancies, which we have literally just filled. For example, three new inspectors have just started in the past six weeks—they are still in their induction period. However, because of that review, we had to hold the vacancies for a period of time so that human resources processes and other things could happen. Moreover, we still have vacancies that are currently being advertised.

Secondly, we have been and are still testing a new methodology, because when we visit a hospital, it is important that we are able to take a broader look. That is what we did when we visited the Queen Elizabeth university hospital. We took a bit of a step back and looked at the bigger picture instead of just what was happening on the front line. I have had to allocate some staff time to developing that approach, and that work will

continue through the year. I want to reassure the committee that our plans in that respect mean that, in the coming year, the number of inspections will start to move back up.

Alex Cole-Hamilton: Good morning. In response to Miles Briggs's question about the drop in the number of inspections, you cited workforce pressures, and that is what my question relates to. The committee knows about workforce pressures in primary care in the NHS, but what impact are those pressures having on infection control? On whom does the responsibility for infection control fall at ward level? Is there some direct corollary between those workforce pressures and the infections that we are discussing?

The Convener: Who would like to answer that fundamental question? Are we confident that the people who are required to do these jobs are actually in post? Are any of the agencies present accountable for ensuring that the level of staffing is adequate to provide patient safety?

Alastair Delaney: If staffing was impacting directly on patient safety and care, we would call that out in our reports. We have certainly highlighted the issue in a couple of reports.

Changes that will be made as a result of the safe staffing legislation—the Health and Care (Staffing) (Scotland) Bill—will allow us to have access to more intelligence and information about staffing levels, and it will become an area that we will increasingly look at when we visit a hospital, because we will have that data before we go and will be in a better position to understand the situation. We can look at that issue as part of our visits at the moment, but the changes will allow us to have more proactive engagement in checking what is going on. However, I do not have any information or evidence to justify saying that staffing levels are one of the main themes in what we have found over the past couple of years.

Alex Cole-Hamilton: You said that you have called the issue out in some of your recent reports and have said that staffing pressures have affected infection control. Are such situations atypical? Is this the first time that you have cited such issues?

Alastair Delaney: It is not the first time, but it is not totally typical. I cannot provide you with any evidence that it is a theme that has been coming up over, say, the past two years.

In a couple of recent inspections, we have found staffing to be an issue particular to the circumstances in a hospital. However, I would hesitate to—and, indeed, would ask the committee not to—extrapolate those circumstances and apply them across the country. As my colleague said in relation to data, it might well be that there is a trend in that respect, but at the moment, we do not have the evidence to say that that is the case.

David Torrance (Kirkcaldy) (SNP): Good morning, panel. I should let you know that, with my engineering background, I have worked in a lot of ventilation systems and plant rooms. As far as infection control is concerned, how are water and ventilation systems managed when there is an outbreak?

Jim Miller: Ultimately, the responsibility for a specific healthcare geography or estate still lies with the board, executive and management team, and that includes the board's professional facilities and estates teams. Each will have a regime that utilises some of the tools that are available from the agencies represented today, but I am not able to tell you the exact extent to which those are replicated in each territorial board.

The routine monitoring changes in the separate circumstances in which there is believed to be an outbreak. There will be a call on agencies such as HPS—the national framework will be cited, which sets in motion a chain of events in which HPS is asked to provide support to the board.

10:45

Phillip Couser: It is exactly as Jim Miller said. Through the national framework—which is colloquially known as the CNO, or chief nursing officer, algorithm, although the name was changed in 2015—the board can make the call to invite Health Protection Scotland in to provide support, as can the Healthcare Environment Inspectorate and the Scottish Government. In the past year, the framework has been invoked five times, I think, which is not an exceptional number.

Some of the support that is put in place will almost certainly be about finding the source and figuring out with the local board what measures are needed. The guidelines on reporting and on the production of action plans to deal with an outbreak are very strict, which is one of the reasons why Scotland has been so effective at controlling outbreaks. The guidelines are based on lessons that have been learned from previous incidents.

David Torrance: How do health boards adhere to and comply with the guidance that you have given them? Water systems are easy to test, but airborne infections in ventilation systems are very difficult to detect. Is the guidance relevant to those systems, or does it need updating?

Jim Miller: The suite of guidance that is provided by Health Facilities Scotland, which was previously referred to as the Scottish health technical memoranda, is based on UK guidance but has been made to reflect the Scottish

environment. It changes over time to reflect such things as engineering becoming more complex or changing—for example, I am sure that committee members are aware of the move from analogue systems to digital systems. The guidance never stands still.

Unfortunately, sometimes we need to reflect on incidents that have taken place to understand whether the guidance needs to be more comprehensively reviewed. For example, we are currently looking at further guidance on technical aspects of water systems that may not have been covered in guidance that was written in 2009. The environment is one of constant iteration and learning.

It is important to say that there is a distinction. 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.

David Torrance: How often are specialist engineers used to test systems? Unlike NHS staff, they have the ability to do that. How common are outbreaks of infection from water and ventilation systems across Scotland?

Jim Miller: I can answer the first part of your question. You are absolutely right that highly specialist technical skills are needed in some cases, which may not be readily available in the NHS Scotland workforce—indeed, having such an in-house resource may not be cost effective. Boards and Health Facilities Scotland will go to the market to get expert advice on guidance or particular cases in which health boards have required that advice.

We are also mindful that there is a balance to be struck between taking advice from external organisations and using and sharing in-built knowledge. Very recently, health boards have asked to reduce their dependency on third-party contractors and for an increase in the number of authorising engineers that NHS Scotland hires. We are looking at that process to ensure that we get the balance right between capturing the best experience in the market at the time and building an inner resilience through having a single team. Health boards have asked whether such a team—if it were to be bought in house, if I can use that phrase—should form part of Health Facilities Scotland, so that it could be called back to individual boards.

I am sorry, but I am not able to answer the second part of the question.

Phillip Couser: On the numbers, as we touched on earlier, our submission identifies 48 incidents in the past three years that have been attributed directly to the built environment. We will provide a breakdown of those incidents, to see whether we can identify how many were attributable to the water supply, ventilation and so on. As I mentioned, we have done literature research on the issues and incidents internationally. Having read those reports, I know that there have been similar incidents internationally to those that we have experienced recently in Scotland, so such incidents are not unheard of. If it would be of use to the committee, we could certainly provide the reports.

The Convener: Thank you. That would be helpful.

Alex Cole-Hamilton: Further to David Torrance's line of questioning, we understand—and it is clear from what the witnesses have said—that routine testing to identify sources of infection, such as ventilation and water supply systems, is very difficult. In many cases, the first indicator of an outbreak will be patient symptoms. Could you give us an idea of the process for tracking down the source of an infection when an outbreak occurs on a ward?

Phillip Couser: You would need to ask that question of a specialist or a practitioner, because I do not think that any of us have that experience

Alex Cole-Hamilton: That is fine.

In relation to risk planning for infection outbreaks, we are all aware of recent examples of wards being closed—just this month, a ward was closed at the Western general hospital because of an outbreak that was caused by water contamination. I imagine that risk planning for the closure of a single ward is easier than planning for whole-hospital contamination. What plans do you have for an infection outbreak on a whole-hospital level?

We know that a hospital recently had to buy tens of thousands of pounds-worth of bottled water. On mitigation, how do we know that risk management processes are not compounding the issue? How do you ensure that you know that the water has come from a sterile environment, for example?

Alastair Delaney: It is important to understand the governance. To answer your first question, it would be down to the board to determine how it responds to and contains an incident. From an inspection point of view, we would look at what plans a board was putting in place, whether they were robust and made sense, how the board would apply them and whether the responsibilities were clear at the time. In a generic sense, we

would look to ensure that a board was in a position to be able to control an incident, should one occur.

It is important to mention that Healthcare Improvement Scotland has the legal power to close a ward to new admissions, should we be concerned about patient safety. However, it is also important to understand that, during the 10 years that we have had that power, we have not used it once. In such incidents, sufficient actions to satisfy us were taken while we were on site, and subsequent actions were then taken, which we followed up.

The Convener: Could you elaborate on the comments that you made in your report on the Queen Elizabeth university hospital with regard to the challenges that you encountered in the relationship between the estates department and the infection control team? We have received evidence from witnesses that, in a number of hospitals, the infection control team—as well as doctors and nurses—appears not to have close working relationships with those who manage domestic services.

Alastair Delaney: I do not want to get into too much detail, but we cover that issue in the published report. The lack of close working relationships was a feature of what we found at the Queen Elizabeth university hospital and its associated sites. We are also concerned about that situation across the whole country, because good working relationships between the nursing staff—particularly the infection control team—and the buildings staff are essential.

In that particular circumstance, there was a large backlog of repairs, and the communication was not great on the management of those and of what happened when issues were reported and, potentially, reported again. It demonstrated that the level of leadership and governance was important. The inspection benefited us by allowing us to stand back and look at those working relationships. It was a key feature that the front-line staff were doing as good a job as they could in the circumstances—we praise them in the report—but some of the problems were more systemic and concerned governance and relationships.

The Convener: We also received evidence that, for example, routine internal repairs and external maintenance are often undertaken without consultation of infection control professionals within the hospital in question. As an inspectorate, would you ordinarily inspect the actions of estates departments and buildings maintenance people within the hospital, or would that happen only in exceptional cases such as the one that you have just described?

Alastair Delaney: It would not be routine; it would happen only when an issue had been raised. For example, in the case that you mentioned—although it is a theme that applies across the country—if plaster was coming loose from a wall or floor tiles were not sealed to the floor, a room could be cleaned but it could not be said to be perfectly clean. Therefore, it would be essential to address that. If we came across such a situation, we would explore it further and try to understand what was being done, how the relationships worked and what actions were being taken to deal with the issues—and that is exactly what we did in the case of the Queen Elizabeth university hospital.

The Convener: I ask Jim Miller and Philip Couser to reflect on those points. Clearly, within NHS National Services Scotland, Health Facilities Scotland is responsible for the design and commissioning of health service buildings and Health Protection Scotland is responsible for infection control and prevention. Is there a close and daily working relationship between the two divisions of NSS that you represent? If there is, why is it not reflected on the ground in health boards? Is there something about how you deal with your counterparts at board level that means that, although you work closely together, your equivalents on the boards are not talking to each other at all?

Jim Miller: Let me correct you on a point of detail. Health Facilities Scotland has no direct responsibility for the design and commissioning of buildings or healthcare operations; it provides advice to those who do. The development of the national cleaning services specification is an example of that advice having had a strong connection to Health Protection Scotland. The first iteration of the specification was in 2006, and it effectively related to the routine areas covered by domestic staff in hospitals. That set a specification and introduced a reporting regime.

The specification was then developed by the HFS staff in conjunction with Health Protection Scotland and was further extended in 2009 to cover the impact of the fabric of the building—not closed systems such as heating and ventilation, which we discussed earlier, but areas that are cleaned but are made problematic by the fabric of the building. I am talking about difficult-to-clean areas with pillars or other obstructions. That is a good example of where the guidance has been co-produced.

The Convener: I want to take you back to the commissioning question. You are right in saying that NHS Greater Glasgow and Clyde commissioned the Queen Elizabeth university hospital, but it did so on the basis of your advice on how to ensure that the facilities were correctly designed to avoid health protection risks. Is that a fair description?

Jim Miller: We hope that all our territorial board colleagues will call on the advice that is available in the suite of technical memoranda.

The Convener: But you would not sit them down at the commissioning stage and ask, "Have you thought about this or that?"

Jim Miller: We have no formal compliance or assurance role in that respect. Other than in the two areas that I mentioned earlier, our role is purely technical and advisory.

11:00

Phillip Couser: With regard to the organisational closeness that has been mentioned, Health Facilities Scotland and Health Protection Scotland might be parts of National Services Scotland, but that is academic as far as the nature of the relationship is concerned. One would say that the working relationship would be similar, regardless of whether they sat in the same organisation. Indeed, Health Protection Scotland has an equally close working relationship with Healthcare Improvement Scotland, and other partners play an important role, too. For example, NHS National Education Scotland plays an important role in educating the broader workforce not just at a national level but in boards. The situation is quite complex, but I want to make it clear that, as Jim Miller has suggested, the fact that we are in the same organisation does not mean that there is more integration than there would be otherwise.

The Convener: Is it fair to say that the close working that you have described at the national level does not seem to be reflected at the local level?

Phillip Couser: I cannot say that categorically. There will be instances of good and less good practice and, indeed, variation across the board.

What I can say is that, given that a lot of Health Protection Scotland's role is to provide support in the event of an outbreak, it will provide guidance on who needs to be involved in such situations. Admittedly, that will happen more in the reactive phase of, say, a significant outbreak, when an incident management team will get pulled together to oversee the situation. The question is, who needs to be at the table? The infection control team will need to be there, as will somebody from estates and so on, and guidance and advice will be offered in such situations.

Jim Miller: The HAI-SCRIBE tool, which I mentioned earlier, contains prompts and suggestions for those areas where facilities and infection control teams should work together. When it is used effectively, it provides a useful internal challenge as to whether both parts of the organisation are on the same page. The tool can and does provide an opportunity for that conversation to take place.

Phillip Couser: We have not really talked much about Health Protection Scotland's infection control manual, which does the same thing from a health protection perspective. As I said, following some of the issues that arose with water systems, we are working on an action plan that will look at and provide advice at the board level on how they can be managed better. However, as Jim Miller has pointed out, it is only guidance—we cannot comment on how that guidance is put into action. Perhaps that is an issue for the inspection regime itself to comment on.

Brian Whittle (South Scotland) (Con): Considering the points that have just been made and the safety features that we are talking about, I simply note that we have heard a lot from front-line staff in a variety of investigations about the lack of ability of front-line clinical staff to input into various roles. What influence can they have in that respect, and what cognisance is being taken of their input with regard to facilities management? Given that they are at the front line, is their input into these kinds of safety issue not important?

Jim Miller: The approach that is taken in major capital projects follows very extensive Scottish Government guidance. The pathway from initial assessment of the options through outline business case to final business case encourages a multidisciplinary—indeed, multi-agency—approach. I therefore believe that the guidance encourages an environment in which all interested parties and stakeholders can have an input. Clearly, I cannot comment on the reality of what happens in specific cases, but I suggest that the guidance allows the opportunity for that input to take place.

Brian Whittle: Would the guidance give clinical staff the authority to have their concerns raised in that environment? Is that your understanding?

Jim Miller: Certainly, in the examples that I have been more closely involved with, I have seen lots of evidence that the design and operation of a facility—whether that is in part of a building or, indeed, a building itself—is never done in isolation.

Brian Whittle: Where does the governance stop? Does it stop at the board level, or do your organisations have input above that level? Do you expect a board to deliver on the plans that are already in place?

Jim Miller: Each agency will probably give you a slightly different answer to that. In the organisation that I look after, the governance stops at the board level, and we would not expect anything to be brought back to us as an organisation.

Health Facilities Scotland works collegiately with all boards via the strategic facilities group, which contains representatives from the Scottish Government, all territorial boards, national or special boards and HFS. The boards do not work in isolation, but—on your point about governance—there is no formal governance report back into HFS.

Phillip Couser: I agree with Jim Miller's point about formal governance.

From Health Protection Scotland's perspective, the guidance is very much shaped by our experts and specialists, who have been front-line staff. They have not just gone to university and then become front-line staff overnight; they have a lot of front-line experience. It is because they have that experience that they work in Health Protection Scotland, and they can bring that experience to bear in shaping the guidance.

On the question of governance, we have no formal governance role beyond the guidance, other than where we are reacting to an outbreak.

Alastair Delaney: We are not part of the governance chain in relation to this matter, either. The boards are obviously the primary governance mechanism, and upwards of them is the Scottish Government. We can escalate concerns to the Government, should we need to do that, if we think that insufficient action is being taken at a local level.

Another point—it is not necessarily to do with buildings, but it could be—is that Healthcare Improvement Scotland hosts the whistleblowing helpline and has other means of gathering intelligence and data from individuals or groups. We would assess that, whatever the subject matter—it does not apply just to the issues that you are looking at here—and we would then get involved in taking the matter forward. That might be as part of a potential investigation or it might spark some other work, should that be required. However, the first stage would be an assessment.

Brian Whittle: We have taken evidence on the effectiveness of whistleblowing in the NHS. I think that it is fair to say that there would be concerns about that.

I suppose that HIS is the most relevant body here in relation to taking evidence from front-line staff as witnesses and escalating their concerns. Is that taking place as part of the investigation?

Alastair Delaney: The investigation?

Brian Whittle: Sorry—I am talking about the issues to do with the Queen Elizabeth university hospital. Are front-line clinical staff part of that investigation through HIS?

Alastair Delaney: I cannot comment on the investigation, but it is essential that front-line staff feed in their views and information. We would expect to see that on inspection. We always ask front-line staff about how their thoughts, ideas and views are taken into account when taking things forward.

We have a mechanism by which, if we have a concern, we can escalate it through the boards and further on if we wish. Obviously, if there is a complaint, that should be handled in the normal way, which is through the board's complaints procedures and then through the Scottish Public Services Ombudsman. However, we have that whistleblowing line as well, should people feel that they are not satisfied with the process.

I cannot comment on the on-going investigation.

The Convener: We have had evidence that microbiologists and, indeed, infection control doctors in NHS Greater Glasgow and Clyde have become whistleblowers because that seemed to be the only way in which they could change things that they had an issue with. Would that concern HIS? If so, what would you do about it?

Alastair Delaney: Yes, it would concern us. If that view was coming through to us, we would take the matter up with the organisations concerned, depending on the issue that was involved—obviously, I do not want to comment on any details. Individual complaints might be looked at individually, but something like the situation that you describe would represent more of a trend, and we would then ask the relevant board for an explanation of why the staff felt that way.

Phillip Couser: I will pick up on how the national agencies would come together in relation to information that might be considered to be soft intelligence rather than hard data, which would involve numbers and so on, because that is an issue not just for HIS. There is a group called the sharing intelligence for health and care group—some members might be familiar with it. It has a broad remit, and I have sat through a few meetings of it. It mostly involves scrutiny bodies. I have HPS and the Information Services Division in the business unit of which I am the director, and we bring our evidence to the group. Other evidence is brought by a range of bodies including the Care Inspectorate, Audit Scotland and NHS Education for Scotland. The group provides an opportunity to engage with boards and raise issues, and some of the softer evidence that you might get through whistleblowing could be considered in that group.

Emma Harper: I have a supplementary question on the back of Brian Whittle's question about the influence that clinical staff have over facilities management. I am aware that NHS

Dumfries and Galloway has an environment team that is led by infection control people and has facilities management and clinical staff on it. They all work together to identify potential infection control issues. Am I right to assume, if we look at the NHS across Scotland and not just at the Queen Elizabeth university hospital, that all boards have equivalent groups that discuss such issues and work together, and escalate issues if necessary?

Jim Miller: Again, I am sorry to say that I do not know. My instinct—based on what I see of sharing of best practice across facilities management colleagues in boards—is that when something is working well in one board, people let colleagues in other boards know about it. I cannot give the committee the assurance that such a group exists in all 14 boards. You would have to ask each board.

The Convener: We have heard various questions and answers on what would prompt action on the part of the HSE, and what role the other bodies that are represented today might play. What would prompt the HSE to investigate whether something is a systemic failure that would compromise health and safety in the healthcare environment?

Iain Brodie: I have been very careful not to stray outwith my area of responsibility during the questions and answers today. The HSE has an interest in NHS Scotland and the boards, and we see the boards as the bodies that would be held responsible for failures and which should be managing the risks that are generated as part of their activity.

The largest portion of our work is focused on traditional health and safety issues. We investigate issues in health boards, but we do not do much work on issues involving healthcare acquired infection, which is the substance of today's meeting. There are occasions when we get involved in HAI matters, but there are very clear guidelines on when that would and would not happen. Ordinarily, such matters are not reported to us, and reporting is the trigger for us to become involved. People would look at an outbreak in respect of which there was evidence of failure to meet clear standards, or of systemic failure to meet standards, or when there was clear evidence that the outbreak had resulted in a death.

11:15

The Convener: Who would bring that evidence to your attention?

Iain Brodie: Such evidence would, ordinarily, come to our attention through the Crown Office and Procurator Fiscal Service, although employees and members of the public are obviously entitled to raise concerns with us through our concerns and advice team.

The Convener: You do not, however, have a formal connection with the Healthcare Environment Inspectorate, for example.

Iain Brodie: That goes back to what we talked about earlier. We have in place an agreement with the Healthcare Environment Inspectorate. If our inspectors have been out and identified issues that fall within HIS's remit, there are mechanisms in place to notify it. How such issues would be taken forward—collaboratively or individually—depends on the subject matter. There are mechanisms. Health and Safety Executive inspectors are certainly very clear about what HIS's role is and what matters should be referred to it.

The Convener: I have another question for Alastair Delaney and, possibly, Jim Miller, about evidence that we have received that the health facilities standards against which inspections are made can be seen as confusing by healthcare professionals. For example, it has been suggested in evidence that the perception among health personnel is that the current standards apply to new build but not to pre-existing premises. Do the current standards apply to pre-existing older buildings, and are they very clear about what is and is not expected?

Jim Miller: Generally, when a standard is updated, cognisance is taken of whether it should be prospective or retrospective. In the majority of cases, the updated standard would be for what will happen moving forward—it would be prospective. That is not to say that, if the change in the standard or in design regulations was such that it had to be retrospective, that would not be considered. Cognisance is often taken of the consequential impacts of such changes. For example, if a change in the fire safety regulations or other regulations would require extensive retrospective treatment—as opposed to prospective treatment—a judgment would be made on that basis. However, the previous two or three changes to standards that have gone through have not been retrospective.

The Convener: Let us consider a complex site on which there are buildings of different ages. I think immediately of Aberdeen royal infirmary at Foresterhill in Aberdeen, although other sites have old and new buildings. Does that mean that a variety of different standards apply in different parts of the campus?

Jim Miller: I will try to answer that question precisely. In a large estate, there is the possibility that the technical advice that is provided will differ from one decade to the next, so the answer is yes, in the case that you mention. I am thinking of the speed at which technical memoranda change. It is

not as though they change every week or every month; they last for years. There is the potential that, in respect of an older piece of the estate, memoranda that have since been updated would have been referred to.

The Convener: I have a question for Alastair Delaney. Does it cause particular challenges for your teams to inspect different premises on a site against a variety of standards?

Alastair Delaney: We will be aware of such differences before we go anywhere near the site.

On your point about confusion, it is important for everyone to understand that we use the standards that are developed by HPS and HFS rather than developing standards ourselves. Therefore, there is one set of standards for everyone. Obviously, if we were going to a site, we would understand the differences before we went there.

Miles Briggs: I want to follow up on the line of questioning on new builds in the NHS Scotland estate. Given the cases that we have seen in recent years, and in recent months in particular, is it fair to say that there has been substandard construction work in some new builds?

The Convener: Who would like to answer that? Is there evidence that new development has not taken into account all the matters that you have described this morning?

Jim Miller: I will try to explain the hierarchy of guidance, standards and regulations. The function of the SHTMs—the technical memoranda—is predominantly to provide guidance. The guidance is written with reference to standards, codes of practice and regulations, but it does not repeat them, because they sit in statute or elsewhere. It would be the clear responsibility of the commissioning organisation, whatever it might be—ordinarily, it would be a territorial board—to ensure that it was in full compliance with everything from regulations downwards. As it stands, the guidance is a route to compliance—it allows organisations to check whether they are complying with the regulations, standards and approved codes of practice that exist.

Miles Briggs: In the cases that we have seen, has that guidance not been followed?

Jim Miller: The guidance is for health boards to rely on, but it cannot be used in isolation. I cannot comment on whether projects that have been completed would fail a compliance test if there was such a thing. Of course, there is not a test of compliance with the guidance; there are compliance tests at the next levels up in the hierarchy, which involve codes of practice, regulations and standards, and I am not aware of any failings on those aspects.

Phillip Couser: At the start, I mentioned the changing nature of the built environment. The standards are changing, so neither I nor Jim Miller can comment on the standard of building. For example, there has been a shift to single rooms, which is admirable in many senses. I am sure that many patients really appreciate the fact that a greater number of single rooms are available. However, that brings with it a change in the nature of risk. In terms of water systems, each room has its own sink, whereas in years gone by, when wards had a number of patients in them, there would have been far fewer sinks. Therefore, the level of risk is different. That is almost an unintended consequence of the move to single rooms.

As I said, we are a learning system. Perhaps we could have anticipated some of the issues, but we are responding to and learning from the changing nature of the layout of buildings. Water systems are just one example.

Miles Briggs: As far as we are aware, it is the responsibility of the 14 health boards, with your support, to sign off projects, so is there a need for that process to be reformed? Should dedicated expert infection control teams take part in the process? It does not sound as though we have 14 dedicated teams doing that for new builds across the country: rather, it sounds as though the situation is patchy, to say the least, when it comes to such expert involvement. Is my interpretation of what is done to look at new builds, before NHS Scotland takes ownership of them, right?

Jim Miller: I will pick up on Phil Couser's point that there is a continuous learning environment. I know that the strategic facilities group is continuously trying to understand how better working can be done. It was mentioned earlier that the incidence of very large and complex hospital builds is relatively small, which means that the opportunities for shared learning are limited. For people who work in territorial boards, it might be only once every 10 years or once in their career that they are involved in such a project. The facilities group and other agencies are considering how we can ensure that shared learning is not lost, as we move from one project to the next.

Miles Briggs: That is an important issue for me, as a Lothian MSP. Edinburgh's new Royal hospital for sick children building is being built by the same construction company that built the Queen Elizabeth university hospital in Glasgow, but different design sets are in place, so we hope that there are no similar incidents at the new hospital. It is important that there are guarantees, and that any retrospective fitting that needs to take place is followed through.

Finally, the panel has suggested that we refer to specialists. Do we have specialists in Scotland

who can do the work that is needed on ventilation, for example? Who do you use when you undertake such work?

Jim Miller: I refer to my earlier comment. Certainly in my area we have a number of specialists—although I would not like to say whether they cover every aspect of the built environment. It is important to recognise that boards and Health Facilities Scotland rely on, and go to, the external marketplace to ensure that we provide cutting-edge advice from others.

The literature review approach, which Phil Couser mentioned in response to an earlier question, ensures that we look at healthcare systems outwith the UK and Europe for best practice. There is something about the technical expertise; there is also something about the scientific expertise that is provided to inform the guidance.

Miles Briggs: People in the construction sector know one another and, in what is a competitive world, talk about one another. From correspondence that I have received—I am sure that other members have received such correspondence—I know that there are on-going concerns, which I have raised with the Cabinet Secretary for Health and Sport. Do you ever, before NHS Scotland takes ownership of a building, instigate discussions about concerns that have been raised?

Jim Miller: I am sorry to say "it depends" again. Regardless of whether we are talking about a concern, a reflection or an observation, it depends on the on-going relationship or conversation between the board or commissioning organisation and HFS.

On the whole, there is a strong and collegiate working relationship. However, we need to understand the respective roles and responsibilities, and when a board has decided to progress a project, we have no automatic right, if you like, of scrutiny. That takes me back to the comment about our guidance and advice role versus the audit compliance role that we do not currently have.

Miles Briggs: Do you ever have concerns about project contracts having been awarded based on savings?

Jim Miller: I am genuinely not aware of any project contract being awarded based on what is seen through a single lens—if I may use that phrase.

Miles Briggs: Thank you.

Alex Cole-Hamilton: Miles Briggs asked about specialists. I am acutely aware that, as we change the model of care that we deliver and build hospitals differently, there are—not to get all Donald Rumsfeld—unknown unknowns. There might therefore be a knowledge gap. We might have specialists with forensic knowledge of how to keep sink apparatus clean in a bedroom, or how to keep air duct units functioning hygienically, but those specialists might not know what the impact is of a helicopter landing on a helipad that is covered in pigeon droppings, for example. Are you concerned that there is a knowledge gap? Would we know who to ask, if the various inquiries that are going on into incidents identified a knowledge gap?

Jim Miller: I am not concerned that there is a knowledge gap, in so far as I am reassured that the NHS in Scotland is an open and learning organisation. However, it would be crazy to assume that we fully understand the fast-moving and changing environment that we have talked about this morning, in relation not just to how health operates in relation to construction and build, but to how construction and building moves in other healthcare environments.

In Health Facilities Scotland, we have strong relationships at UK level and beyond to ensure that there are open learning opportunities—so that others can learn from us and we can learn from them.

Alex Cole-Hamilton: Are you confident that the specialists, clinicians and workers who are charged with infection control have sufficient continuous training to ensure that they are on top of the issue? We understand that an arms race exists with developing infections because they become resistant to traditional techniques. Do we have a comprehensive suite of training to upskill the workforce that is in charge of infection control, in line with our developing understanding of viruses and bacteria?

11:30

Phillip Couser: We have such a programme and it is an integral part of our work. NHS Education for Scotland, which I mentioned earlier, is a key partner, because there is no point in us writing a piece of guidance or developing an action plan if we do not also think about how to take it out to educate front-line staff on its application. That is certainly a key component.

Going back to the unknown unknowns, surveillance and how we ensure that we are keeping up with the arms race, I note that, as I said earlier, Scotland is in a strong position in the European figures, but we continue to work in the UK context and the European context to see what is going on. We mentioned the literature reviews that we have done that look at the international context—that surveillance goes on all the time.

Alastair Delaney: I return to the point that it is not always just about specialist knowledge and training. Sometimes, as we have found recently, it is also about accountabilities and responsibilities and clarity about that. As the healthcare environment develops, it can sometimes be unclear who is responsible for something. For example, we now have more single rooms, so we have more sinks and toilets. If they are not being used, who is responsible for the flushing regime?

It is important, for that reason, that governance keeps up with developments in healthcare. It is therefore not always just about training; it is also about there being clarity not just among clinical staff, but among all staff, including ancillary staff, about who is responsible for what, and it is about keeping such operating procedures up to date.

The Convener: Thank you. I want to go back to my earlier question about the Health Facilities Scotland standards. Can Alastair Delaney confirm that HIS's requirement and expectation is that all buildings that you inspect will reach the relevant standard?

Alastair Delaney: We expect the standards to be met. We cannot check every standard on every visit, but we use intelligence and evidence to inform whether we need to look at anything in particular.

The Convener: Do you apply that intelligence-led approach to existing buildings and new buildings?

Alastair Delaney: Absolutely.

Emma Harper: I am interested in the cleaning of the environment. On what makes people susceptible to infections, it is, for example, the immunosuppressed patients—bone marrow patients and neutropenic patients—who are compromised and who are most at risk. We talk about new builds and all the pipes and air, but the same issues apply in the older estate. Cleaning is integral to infection control and prevention, so I assume that we have everything in place to make sure that our cleaners are educated and prepared. It is not just about the clinical teams: everybody has a responsibility to wash their hands, and cleaning the environment is also essential. I would be interested to hear your comments on that.

Alastair Delaney: As I said, it is essential that ancillary staff including cleaning staff understand their roles and responsibilities, that they are trained appropriately so that they understand what they have to do and why, and that that dovetails with clinical input so that clinical staff understand what is required and how they can accommodate the work that has to be done. We certainly look at that in inspections, as is evidenced by recent reports.

Jim Miller: HFS collates a national report on compliance with the national cleaning specification that I referenced earlier—currently, it is the 2009 one—and the most recent report was published six to eight weeks ago. Using a relatively simple red, amber and green system, that report identifies locations' adherence to the specifications and the shared learning opportunities that are created by the mixed age of the estate.

Emma Harper: I think that I read in a submission that, if a room was visibly clean or looked tidy, it might be skipped when it came to cleaning. However, given that you cannot see micro-organisms on a bedside locker or whatever, there needs to be a regular cleaning routine, no matter whether a place looks okay. I imagine that that would be best practice.

Alastair Delaney: I cannot remember the precise detail of the specification, but I would be surprised if it was based on a visual inspection alone. I am happy to refer back to the committee on that point.

The Convener: We were told that in one hospital

"Current cleaning ... conforms to a dynamic risk assessment for the first 3 days of a patient stay".

In other words, if the room appears to be clean,

"cleaning is not carried out on that day."

Would that fail an inspection?

Alastair Delaney: It would depend on the context and circumstances. We would look for information on how we—and, indeed, the hospital—could be assured that that area was clean to an acceptable standard. Instead of being prescriptive about what it had to be, we would ask for assurances on how that was being managed and looked at.

The Convener: We are told in the same submission—and I do not doubt that this is correct—that

"Virtually all hospitals in the Western hemisphere, and further afield, clean patient rooms or bed spaces at least once per day."

However, that is not currently a requirement in Scotland, is it? It is not something that you require hospitals to be able to demonstrate.

Alastair Delaney: I apologise, again, convener. I am certainly happy to refer back to the committee on the precise detail of the specification, but I do not have it in my mind.

The Convener: Thank you for that.

Another submission says:

"Inadequate ventilation systems have been installed in new build hospitals; these are not fit for purpose for ... specialist patient groups"

such as

"bone marrow transplant and haematology wards."

It adds:

"the adoption of positive pressure ventilation rooms ... room design throughout a number of Scottish hospitals is inadequate to protect isolated immunosuppressed and/or vulnerable patients".

I guess that this follows on from Emma Harper's specific question on ventilation, but do members of the panel recognise those approaches to new-build hospitals?

Jim Miller: That is not something that I can comment on, except to say that it is clearly a very technical area. I do not think that anyone the committee has asked to attend will have that expertise.

The Convener: Who makes the final choice on equipment and systems such as ventilation? Where does the responsibility for choosing and installing a ventilation system lie?

Jim Miller: Depending on the contract model, it would be the commissioning organisation. In the case of a large hospital, therefore, it would be the territorial board.

The Convener: Does HFS lay down design standards that ventilation systems must comply with for reducing healthcare associated infections? Are there choices made within those standards by the commissioning organisation?

Jim Miller: The standards exist as guidance, but we expect them to be adhered to. We have talked about the review of the guidance on water and water systems, with their vastly increased complexity, and I think that the same can be said about changes to ventilation systems. The landscape is ever changing.

The Convener: Are you aware of any evidence in recent years of a new-build hospital disregarding or failing to comply with guidance on such systems?

Jim Miller: I am not.

Emma Harper: There has already been a massive reduction in the incidence of central venous access device-associated infections in recent years, because we now know that central lines should be put in only in an area that is clean and where there is a positive pressure environment such as an operating theatre or a clinical room that is used only for line insertion. Everybody is aware of the places where invasive procedures must take place, and that has been set as a standard. I simply reiterate the fact that there has been a reduction in the incidence of line and surgical site infections, because good clinical practice is in place and knowledge is being shared as a result of inspections and through the infection control experts network. I am proposing that, because I know that to be a fact.

The Convener: Is that something that witnesses would confirm?

Alastair Delaney: Yes, that is certainly the case. The improvements have been significant and the sharing of good practice has been strong because patient care and patient safety are at the heart of what everyone does, so everybody wants to learn from everybody else. There will always be places where something has not quite gone right, and we need to identify those, fix them and then move forward.

Phillip Couser: From a governance perspective, at a Government level, there is the antimicrobial resistance and healthcare associated infection policy group, which HPS supports and informs. The policy that comes from that group is taken forward by the Government in an antimicrobial resistance and healthcare associated infection group of its own. That has been incorporated into a broader health protection network. There are well-established processes for bringing that knowledge together and sharing it to ensure that we are continually updating the guidance that we provide.

Miles Briggs: I have a supplementary question on reporting up to the Scottish Government. Would it take the discovery of two cases in one hospital for ministers to be informed?

Phillip Couser: I would have to check the detail of the national framework to confirm that. It is all well specified in it. If the committee would like to see a copy of national framework, we can readily supply it.

Miles Briggs: That would be useful. Do you do any work on the fact that people who are in hospital often have compromised immune systems? In terms of the reporting—for example, what is put on a death certificate—I do not think that it is clear from the figures whether hospital acquired infections played a direct part in someone's death.

Phillip Couser: That information would be available. I do not know how readily available it is. If the committee particularly wants to find out more about that, we could certainly take that away and give you some data on the level of mortality that is attributable to healthcare associated infections.

The Convener: One specific point arose in the submission from the British Medical Association. It questioned the need for Scotland to have its own guidance for healthcare premises and said that one of the consequences of having separate guidance is that it makes it harder to get external experts and training for the relatively small Scottish market. We have already had some

discussion about external experts. Do you recognise that point? If so, what is your response?

Jim Miller: If the guidance is based on UK guidance, it is changed as little as possible—in some cases, it is not changed at all. It is changed to reference issues in relation to which regulatory regimes in Scotland are different from those in other parts of the UK or in relation to which there is a fundamental change in healthcare practice, such as the instance of single rooms that Phil Couser mentioned earlier. The changes do not involve a rewrite; they simply ensure that the guidance is appropriate in a Scottish context.

I would like to go back to talk about a question that you asked earlier about adherence to the guidance. I have just checked my notes and I can tell you that there is an internal report by HFS for consideration by NHS Greater Glasgow and Clyde that mentions that, at least once, it was not possible to absolutely confirm that something adhered to the technical memoranda and met the requirements, and it asks the health board to comment on that. I think that I said that to my knowledge there were no such cases, but I would just like to clarify that there is something that suggests that we have asked the question of the board when it invited us in.

The Convener: So it appears that it might have fallen below the standards, because the standards cannot be implemented.

Jim Miller: It is not that the standards cannot be implemented; it is that, when we have looked at a particular piece of water pipework, we have not been able to confirm that it meets the standards. Again, I am not a technical expert, but that might be because it is a closed system.

The Convener: I understand. Thanks very much.

Brian Whittle: We understand that the current backlog of maintenance jobs is 300 at the Queen Elizabeth hospital. Is such a backlog normal for a hospital of that age and size?

11:45

Alastair Delaney: From our side, we saw that number as quite high.

Brian Whittle: Could such a backlog pose a threat to patient care?

Alastair Delaney: Any such backlog could pose a risk to patient care. The question is how responsive a board is in dealing with a maintenance backlog. It needs to prioritise the list, so that it can focus on the areas of highest risk and make sure that progress is made. That is what NHS Greater Glasgow and Clyde has done. As you can see in our published report, the board provided an action plan setting out how it would deal with all the recommendations, including the backlog, so it is taking things forward to our satisfaction. We will check its progress at a later date.

Brian Whittle: Is maintenance given the priority and funding that it deserves?

Alastair Delaney: A decision about whether it is sufficiently funded is well above my pay grade.

The Convener: Do we know what process NHS Greater Glasgow and Clyde has followed to set its funding priorities?

Alastair Delaney: I am not able to give detail on how it was done. We would ask the board how it has set its priorities and patient safety and care would obviously be at the top of that list.

Brian Whittle: Are maintenance jobs at the Queen Elizabeth hospital the responsibility of the health board or does the contractor retain some responsibility?

Alastair Delaney: I do not know in detail—colleagues might be better placed—but, as I understand it, the hospital was not a private finance initiative build, so the responsibility to make those improvements lies with the health board. I note that the 300 jobs are across all the sites, not just the new build, as you mentioned earlier. Some of the older builds have significant issues by their very nature, which was your original question. We all understand that that makes it difficult, but that is the position that we are in in this country.

Emma Harper: I will pick up on Brian Whittle's question. If 300 maintenance jobs are required, some might be as simple as a light-bulb change, which would not be an infection control issue. Prioritising them on severity of risk—red, amber and green, with red being, "You really need to do this right now"—needs to be part of the consideration.

I am aware that facilities monitoring tools are used to help to monitor the facilities. Some are the contractors' responsibility. For example, if a sluice is required in a clinical area because it was not in the right place in the original design and build, that will be a bigger job than changing taps, sinks or light bulbs and will need a more planned process of engagement and a different priority.

Alastair Delaney: You are absolutely correct that the jobs are not all of the same order. The number does not tell you a huge amount. It depends on the nature of the jobs; some are easily fixed and can be done immediately, others would take a longer time and some are more important than others for patient safety. You would have to delve into the detail to better understand what the jobs amount to.

The Convener: I understood your previous answer to say that you would ask NHS Greater Glasgow and Clyde how it had set priorities, which would include who had been involved in setting the priorities.

Alastair Delaney: Of course. We would check that there is a prioritisation and a rationale for it.

The Convener: —and that it has involved clinical staff, not only estate staff.

Alastair Delaney: Of course.

The Convener: I understand. That is very helpful. My last question is about whistleblowing. Members of clinical staff have felt the need to become whistleblowers in order to draw attention to their concerns. Are any of your organisations the type to which members of the public or hospital staff can go to direct their concerns, with a consequence that you will be able to do something about them?

Alastair Delaney: Yes, it is possible. However, it should be understood—and it is always a difficulty—that people raise individual concerns about their individual treatment. If that is the case, it is a complaint to the board. A process has to be followed, and if the person is unhappy with the way in which the complaint has been handled, it goes to the Scottish Public Services Ombudsman. We cannot get in the way of that process.

Members of the public contact us, but we have to extrapolate from the complaint and ask whether there are general issues that are applicable across a wider range, rather than investigating an individual circumstance. We use complaints as intelligence—if we get information, we can see whether trends or issues build up over time in an area. We can use that to inform the further action that we take.

The Convener: So that would be a piece of advice.

Iain Brodie: I have a similar answer. Members of the public, staff and employees can raise concerns with us, and there is information on how to do that on the website. Those concerns would be triaged against our regulatory model to determine where the jurisdiction rests.

The Convener: I am sure that it is helpful for members of the public and, in particular, concerned members of medical staff to understand that.

Panel members have mentioned on a number of occasions that the expertise we were seeking was not their territory. As a general question, are there other witnesses or organisations that you feel the committee should hear from who could address some of the questions that we have discussed today but not fully resolved? Do the witnesses have any nominations of other witnesses from whom we ought to hear?

Phillip Couser: It would depend on the specific question. We have covered a range of questions, from high-level strategic organisational issues, which we are equipped to deal with, down to some very specialist issues, which we are not. In all our organisations, we rely on a large number of staff to have collective knowledge. If the committee wants to explore a specialist topic in detail, we could advise, but, given the range of questions that we have been asked, it is difficult to identify a particular witness, certainly from a health protection perspective, unless the committee indicates that it wishes to explore a particular topic.

Miles Briggs: In your experience, is there one of the 14 health boards that is getting it right when it comes to inspection and future proofing the NHS estate?

Phillip Couser: The figures show that some boards do better than others. We have talked a lot about Glasgow and the concerns about the Queen Elizabeth university hospital are not secret. However, NHS Greater Glasgow and Clyde is doing better than the Scottish average. I say that to try to put things in context. Pools of good practice can be found. It depends—some boards will be good at some areas of practice and others at others. Commissioning new hospitals is a difficult one to call because boards do that so infrequently. There will be other examples. Depending on the area that the committee wishes to explore, there will be a board that is an exemplar compared to the rest.

The Convener: Thank you. The *Official Report* of this committee session will be published later today. I ask witnesses to reflect on the questions that were raised during the session but not fully answered, and to come back to the committee with any further thoughts. A number of panel members have promised to provide further information. The committee would be grateful if that could be available by Tuesday 26 March. I know that that date is soon in terms of working days, but it would be helpful to the committee if we could have access to any further information that panel members have offered to provide by this time next week.

I thank you all for your answers to the many questions that the committee has raised.

11:54

Meeting continued in private until 12:11.

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