

# Creating infection-resilient healthcare spaces: From design to decontamination.

Key outcomes & learnings from the IPC Breakfast Forum, May 2026.



THE HEALTHCARE DOOR SPECIALIST

## Executive summary.

The IPC Breakfast Forum, hosted by Specialist Door Solutions (SDS) in May 2026, brought together infection control nurses, architects, healthcare scientists, decontamination specialists, and healthcare estates leaders to explore how infection prevention and control (IPC) must be embedded at every stage of healthcare design, construction, and operation.

Across the session, a shared theme emerged: IPC is too often treated as an afterthought in healthcare construction, consulted too late, cut out at value engineering, and underrepresented in the design process. The panel, drawing on decades of combined clinical, scientific, and design experience, made clear that this must change, particularly as the New Hospital Programme creates a once-in-a-generation opportunity to build infection-resilient environments from the ground up.

The consensus was unambiguous: poor IPC design does not just cost money in retrofit and remediation, it costs lives. And unlike a fire, transmission of a healthcare-acquired infection is invisible, untraceable to a single moment, and profoundly difficult to attribute. That invisibility has allowed the issue to be deprioritised for too long.

In this document we have summarised some of the key insights and discussion points from the session.

## 1. IPC must be involved from day one – not as an afterthought.

A recurring frustration across the panel was the inconsistency with which infection control specialists are engaged in early-stage design. The consequences of late involvement are significant: room sizes too small, ventilation systems that compromise fire compartmentalisation, and products which simply cannot be cleaned effectively in a clinical environment.

- ✔ Involvement varies dramatically from Trust to Trust and project to project – some bring IPC specialists in without being asked; others require architects to plead for access.
- ✔ If IPC is not consulted at the earliest stages, even basic decisions, like the distance between a macerator and a clinical handwash basin, can make compliance impossible later.
- ✔ Once procurement or design has advanced, the cost of correcting IPC failings escalates rapidly.

The forum reflected that the best outcomes emerge when IPC specialists, architects, engineers, and contractors collaborate from Stage 2 onwards, not as a compliance exercise, but as a fundamental part of design development.

“ If an IPC specialist isn’t brought in at early stages, it can affect even the size of rooms. The space between a macerator and a clinical handwash basin is just one example, where the recommendation is quite a distance between the two and often our dirty utilities are just not big enough to accommodate that. ”

Jenn Castein, Associate Director,  
AD Architects



## 2. Risk-based thinking must replace one-size-fits-all solutions.

One of the most repeated messages from the panel was the danger of designing all healthcare spaces to a single standard, either in clinical specification or in product selection. Different spaces, different patient groups, and different organisms demand different approaches.

Key observations:

- ✔ The Spaulding classification system provides a clear framework for determining decontamination levels, but it requires an understanding of the actual clinical activity in each space.
- ✔ Designing everything to the highest specification is both unaffordable and unnecessary, but designing too low creates risk. The answer lies in rigorous, space-by-space risk assessment.
- ✔ A paediatric environment's highest-contact surface is the floor; in an adult environment, it is door handles, push plates, and tap fittings. Specifications must reflect this reality.
- ✔ Flexibility and standardisation, while commercially attractive, undermine the risk-differentiated design that IPC demands.

The panel were equally firm that the drive towards standardisation in the New Hospital Programme, while understandable from a cost and programme perspective, risks embedding IPC compromise at scale if not carefully managed.

**“ When I prevent an outbreak in a hospital, I've prevented an outbreak, I've saved millions, but nobody sees it. Infection control has always been tasked with proving something that never happens. ”**

Alyson Prince, Infection Control Nurse & Built Environment Specialist  
Safe Build Solutions





### 3. The competence gap in IPC and the built environment is critical.

A frank discussion took place around the shortage of IPC professionals with meaningful experience of the built environment, and the implications this has for major capital programmes currently underway.

- ✔ Many specialist nurses may only be involved in one capital project during their careers, whereas IPC nurses often provide valuable continuity and long-term insight through their involvement across multiple projects throughout their time in post.
- ✔ Following the pandemic, a significant number of experienced IPC professionals left the sector, creating a knowledge vacuum precisely when the NHS needs their expertise most.
- ✔ The guidance frameworks, the Health Technical Memorandas (HTMs) and Health Building Notes (HBNs), are often out of date and do not adequately support practitioners working on new builds or in community settings.
- ✔ There is a growing case for a dedicated “IPC in the Built Environment” educational module, with opportunities currently being explored for the development and delivery of training courses focused on this subject.

The forum drew a clear parallel with the building safety sector: just as the BSA has exposed the competence gap in fire safety, the New Hospital Programme is exposing an equivalent gap in IPC expertise, one that must be addressed urgently through training, guidance reform, and interdisciplinary working.

## 4. Design must account for the entire lifecycle, including maintenance & decontamination.

A healthcare building is occupied 24 hours a day, every day, for 30 to 50 years. Yet too often, design decisions are made for day one performance, with insufficient thought given to how spaces and products will be maintained, replaced, or decontaminated over their working lives.

- ✔ Smoke seals, door furniture, surface finishes, and drainage - all must be specified with cleanability, chemical resistance, and longevity in mind.
- ✔ NHS Estates documents, such as the 2004 guidance stipulating 20 - 45 year design life for doors, are widely considered unrealistic and are not aligned with current cleaning regimes and product realities.
- ✔ Products that are easy to clean on day one may fail after repeated heavy use and exposure to clinical-grade cleaning agents, creating cracks and crevices where microorganisms can persist.
- ✔ FM strategies and cleaning protocols must be part of the design conversation from the outset, not added retrospectively after.

The panel highlighted the need for planned decant facilities, space to move patients while wards are thoroughly decontaminated and maintenance undertaken. Without these, hospitals are unable to safely deep-clean shared areas, creating cumulative infection risk that builds year on year. It was discussed that the New Hospital Programme may not adequately provide for this.

**“ We need to think about not just what looks great on day one, but what is safe on year ten. Those can sometimes lead to very different decisions. ”**

Professor Elaine Cloutman-Green BEM, Consultant Clinical Scientist (Infection Control Doctor)





## 5. People & behaviours are as important as infrastructure.

The forum drew consistent attention to the human dimension of infection resilience: the cleaners, nurses, estates teams, and patients who interact with the built environment every day. Infrastructure and policy alone will never be sufficient if the people operating within those environments are not supported, trained, and engaged.

- ✔ Cleaning staff are the last line of defence against infection, yet they are frequently under-trained, under-supported, and working from generic guidance that doesn't reflect their specific environment.
- ✔ Ward nurses are not trained cleaners. The assumption that clinical staff will supplement cleaning without effectively training is unrealistic and unsafe.
- ✔ Training programmes need to be scenario-based and environment-specific, not one-off workshops, to create lasting behaviour change.
- ✔ Leadership that thinks about how people work within spaces, and designs and trains accordingly, is essential to sustained infection resilience.

The pilot 'Spotless' programme, a scenario-based learning tool designed specifically for cleaning staff, was cited as a model for how training can be made meaningful, contextual, and behaviour-changing. Frameworks and decision-support tools were seen as more effective than passive training events.

**“ The cleaning staff are the last line of infection resilience. If we don't engage them, and they are often under-designed for and under-supported, then all the infrastructure in the world won't keep patients safe. ”**

Becky Hill, Decontamination Specialist,  
Veolia / Central Sterilising Club

## 6. IPC & fire safety must be designed together, not in isolation.

A live question from a forum participant crystallised a challenge that runs through every healthcare construction project: the tension between IPC requirements and fire safety requirements, which are too often resolved without both disciplines in the same room.

- ✔ Door specifications offer a prime example: IPC may favour non-porous, chemical-resistant finishes; fire safety may require specific hardware, gaps, or seals that are difficult to clean.
- ✔ Brush-type smoke seals, widely used in fire door assemblies, are extremely difficult to clean in clinical environments but may present an unacceptable IPC risk in many settings.
- ✔ Ventilation strategy and fire compartmentalisation must be designed in parallel; fire doors installed without consideration for theatre air-change requirements can fundamentally undermine clinical function.
- ✔ Derogations, where one compliance requirement overrides another, must be made through a documented, multi-disciplinary risk-assessment process, not by default.

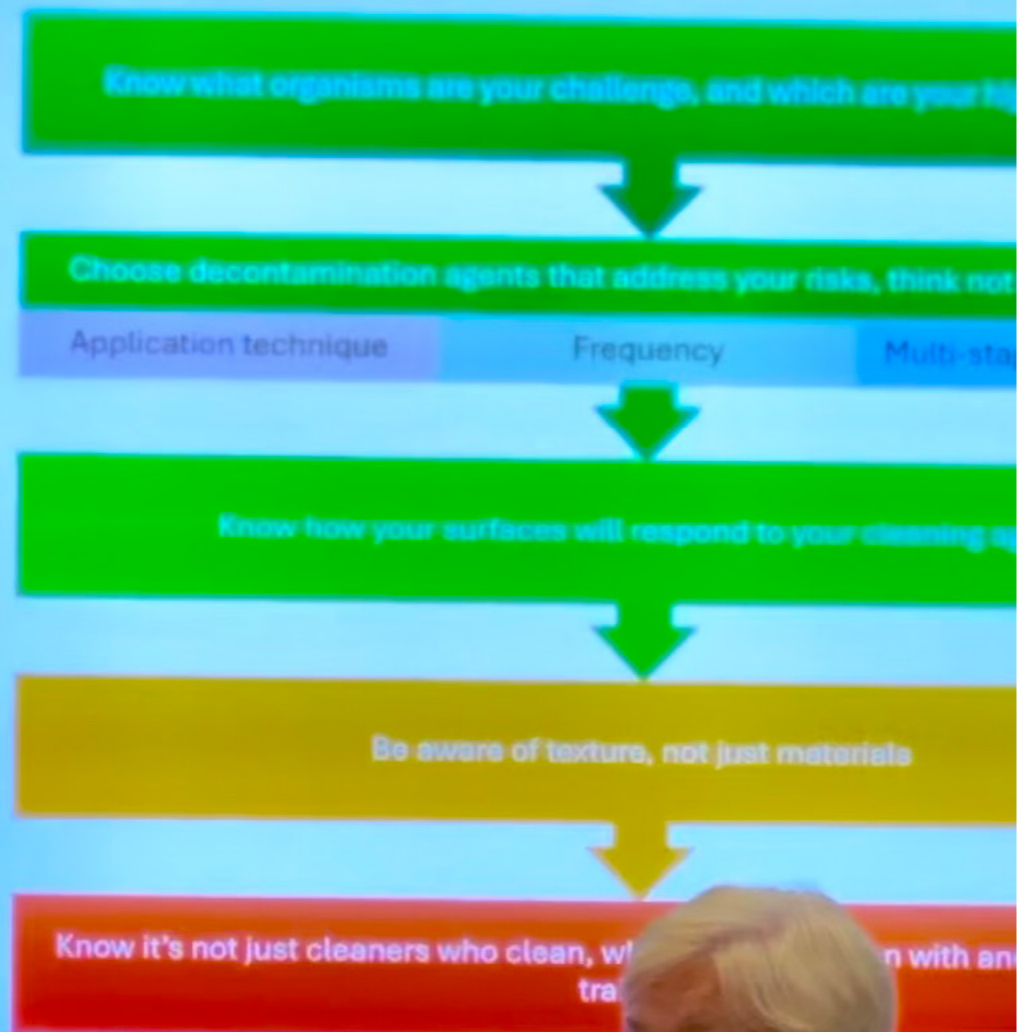
The forum drew a direct comparison with fire safety: it took the tragedy of Grenfell to focus industry attention on fire compliance failings. IPC failures, by contrast, are invisible, infections accumulate slowly, causation is rarely traceable, and the consequences disperse across weeks and months. The challenge is making the invisible visible and giving IPC the same status as fire safety in every design conversation.

“ Every single element has got to work together. Doors are great for infection control; we use them to separate risks and protect vulnerable patients. But if you put fire doors on a theatre without thinking about ventilation, they just don't work. The devil is in the details. ”

Karren Staniforth, Consultant Clinical Scientist



## Top Tips



## 7. Guidance frameworks must be updated & made actionable.

Across the session, significant frustration was expressed about the state of the national guidance frameworks that underpin IPC decision-making in healthcare construction. HTMs and HBNs, the Health Technical Memoranda and Health Building Notes that form the backbone of NHS design standards, are widely considered out of date and insufficiently responsive to evolving evidence.

- ✔ Key guidance documents have not been updated to reflect current clinical practice, emerging organisms, or modern construction methods.
- ✔ The community healthcare environment, increasingly used for higher-acuity care, is not adequately covered by existing HTM frameworks.
- ✔ Australia's model of live, continuously updated guidance – accessible from a single platform – was cited as an aspiration for what the UK system should become.
- ✔ Without current, credible guidance, practitioners default to outdated standards or local interpretation, creating inconsistency and risk.

The forum called for a coordinated, centrally-funded effort to update guidance, establish a live evidence base, and make it accessible to the full range of practitioners who need it, from infection control nurses to architects, from estates managers to product manufacturers.

**“ The HTMs and HBNs are what people are using as standards. If the guidance isn't up to date, and the training isn't there, we're building new hospitals on an inadequate foundation. ”**

Alyson Prince, Infection Control Nurse & Built Environment Specialist,  
Safe Build Solutions

## 8. The New Hospital Programme is a generational opportunity - and a generational risk.

The forum closed with a shared sense of urgency about the New Hospital Programme. Eleven new hospitals represent an extraordinary opportunity to embed infection resilience at scale, and an equally extraordinary risk if the lessons of the past are not applied.

- ✔ Hospitals are currently spending millions on retrofit IPC compliance, remediation of failings that could have been avoided at the design stage.
- ✔ New build is the opportunity to get it right: correct surface specifications, appropriate room sizing, integrated ventilation and fire strategies, and planned decant space.
- ✔ The sector must resist the pressure to value-engineer IPC compliance out of specifications in the same way fire compliance cannot be compromised.
- ✔ IPC specialists, architects, contractors, FM teams, and product manufacturers must be in the same room, from Stage 2 onwards, if the programme is to deliver infection-resilient buildings.

The forum agreed that influencing the New Hospital Programme right now, while design decisions are still being made, is both possible and essential. A coordinated voice from across the IPC, design, and construction communities, supported by clear guidance and practical tools, can help ensure that the programme delivers buildings that are genuinely infection-resilient for decades to come.





## Summary.

The IPC Breakfast Forum made clear that infection prevention and control is not a niche clinical concern, it is a fundamental determinant of patient safety, building performance, and long-term value in every healthcare environment. The evidence is overwhelming: late IPC involvement, inadequate product specification, poor maintenance planning, and workforce gaps all combine to create risks that are invisible until they manifest as harm.

The good news is that the solutions are known. Earlier engagement, risk-based design, updated guidance, better training, and genuine multi-disciplinary collaboration can transform outcomes. The New Hospital Programme provides the platform. What is needed now is the will to use it.

SDS, as a specialist manufacturer working exclusively in healthcare and an active convenor of industry forums, is committed to supporting this agenda through trusted, IPC-compliant products, technical partnerships, and events like this that bring the right people into the room at the right time.

If you would like to discuss the themes from this forum, or to explore how SDS can support your next healthcare project, please contact us at [sales@specialistdoorsolutions.com](mailto:sales@specialistdoorsolutions.com).

If you'd like to watch a replay of the Forum - you can see the session in full [here](#).

*Pictured on the left* - IPC Breakfast Forum speaker panel (left - right):

Karren Staniforth, Consultant Clinical Scientist

Becky Hill, Decontamination Specialist, Veolia / Central Sterilising Club

Alyson Prince, Infection Control Nurse & Built Environment Specialist, Safe Build Solutions

Jenn Castein, Associate Director, AD Architects

Elaine Cloutman-Green BEM, Consultant Clinical Scientist (Infection Control Doctor)

Russell James, Strategic Partnership Director, SDS



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