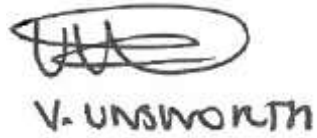
Commercial Case Appendix 19- Infection Prevention and Control Checklist

Business Case Review			
For non-clinical issues related to the design, construction and fitting out of multi-bed rooms and associated areas To be completed by the healthcare provider		Date: 4th September 2014	
Healthcare Provider	Brighton & Sussex University Hospitals NHS Trust		
Site	Royal Sussex County Hospital, Brighton		
Project / Scheme	3Ts Hospital Redevelopment		
Building/ Ward	3T Redevelopment		
Project Manager for the healthcare provider	Duane Passman, 3Ts Programme Director		
Business case or design stage to which this checklist / review applies	Full Business Case		
Completed by (for healthcare provider)	Valerie Unsworth		
Reviewed by	Valarie Unsworth (Nurse Consultant IPC), Eoin O'Flynn (3T Change consultant), Abigail Pride (3T Change consultant)	Date:	27th August 2014
General Notes:			

Part 1: Sign-off The infection prevention and control checklist/review should be signed off by the relevant parties before the scheme proceeds. Some of the roles below (not Chief Executive Officer) may be covered by a relevant director in the healthcare provider organisation. If appropriate, a single sign-off, clearly stating which area of responsibility is covered, may suffice.

Check	Reason	Involvement	Design signed-off by:
Chief Executive Officer	With regard to control and prevention of infection and privacy and dignity issues of the facilities to be provided by his/her organisation to patients, staff and visitors.	To ensure that all departments/ commissioners are satisfied with the IPC issues for the facilities proposed. The person ultimately responsible.	 Matthew Kershaw, Chief Executive
Director of Infection Prevention and Control (DIPC)	With regard to IPC of the facilities and resources to be provided by his/her organisation to patients, staff and visitors.	The provision of coordination, advice and management across clinical boundaries and to inform the trust board/ management team.	 Sherree Fagge, Chief Nurse
Director of Estates and Facilities	With regard to design, operation and maintenance of the buildings and resources to be provided by his/her organisation to ensure a safe estate is provide for patients, staff and visitors.	The provision of coordination, advice and management across the estates and facilities team and to inform the trust board/management team.	 Des Weeden Assistant Director, Estates
Nurse Consultant - Infection Prevention Team	To ensure involvement in the design and signing-off process and that the design is to their satisfaction for IPC purposes.	To provide specialist input into the design and management process to facilitate effective IPC performance.	 Valerie Unsworth, Nurse Consultant and Deputy Director of Infection Prevention & Control

Part 2: Planning and Design

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
2.1	Has the Infection prevention and control (IPC) team been consulted throughout every stage of the capital project and their views taken into account?	IPC teams should be involved throughout all phases of construction and renovation projects to reduce IPC risks. Failure to assess these risks properly can lead to expensive redesign later and expose the patient and healthcare worker to infection hazards.	• Control of legionella and aspergillus Impact of design on: • Space/sizing • Decontamination • Specialist areas • Engineering services (such as ventilation and water systems) Need to assess if design can support: • Storage (linen, waste, patient equipment, cleaners' equipment) • Ancillary areas • Changing facilities • Location of hand-hygiene facilities Discuss finer details of: • Location and type of fixtures and fittings • Equipment schedules • Airflows in theatres • Wastewater and sanitation • Medical gas vacuum systems	Yes	The IPC team have worked very closely with the design teams during the project and will continue to do so.
2.2	Has an infection control risk assessment been completed in relation to the completed facility as proposed?	To assist in designing out all IPC related risks	See issues below. This is an on-going process, risk based in all design aspects	Yes	Ward design is at 1:100 scale. Infection Control risk assessment will be completed as part of the on-going design process.
2.3	Segregation of different gender patients.	The facilities must be designed and operated in a way where suitable segregation of patients of different gender exists.	Other than the usual privacy and dignity issues, infections such as C.difficile results in significant and unpleasant bowel movement which can be extremely disturbing to all concerned, but even more so when patients of different genders are in close proximity. Methods of isolation management and the design of the ward need to take this into account.	Yes	CIS will have 13 single rooms and Oncology 5 single rooms and two 2 bedded bays. All single rooms are ensuite. Bays have dedicated WC's and showers within the bay Single room % for 3T is 58%

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
2.4	Have future establishment and inpatient and outpatient activity been used to determine types of IPC facilities available.	Determine if isolated ventilation rooms are required. Recognise new techniques or services and identify any new sources of infections.	4 bed bays with doors helps future proof capacity/isolation. The numbers of single and isolation rooms are derived from the bed model. Future proofed for projected capacity and demand	Yes	IPC facilities included in outpatient and inpatient accommodation as part of the overall design process.
2.5	Is the ward or facility used as a route to access other areas?	Through traffic will prevent adequate and effective isolation and could result in bringing the infection into the ward or facility from an adjacent infected area.	Through traffic must be minimised during normal use but prohibited during an outbreak of infection. The design and operational procedures must take this into account.	Yes	No, each ward area is independent
2.6	Will the facilities will be easy to clean?	Cleanliness of the environment and the use of durable easy clean surfaces and materials are essential. Build-up of dust, complex detailing and areas impossible to clean will all contribute to problems with infection control and higher costs and time required for cleaning.	Refurbished areas may retain poor floor coverings, ledges, complex details and surfaces incapable of being cleaned efficiently. Conversion of spaces previously used for other purposes may contain undesirable features such as raised floors used for the distribution of services, etc. Spillages in such areas could lead to high levels of risk. Chlorine based disinfectants are used to combat C. difficile and other infections. Surfaces must be resistant to damage by such fluids and other chemicals that may be used to combat disease or infection. Gaps between surfaces and un-cleanable voids should be effectively sealed or avoided to prevent build-up of spores which can survive for a long period of time away from the body. Blinds, light fittings and complex detailing will all contribute to the risk of infection through insufficient or difficult cleaning regimes being necessary. Heat emitters such as radiators must be capable of being cleaned all around and covers which cannot be removed or accessed for thorough cleaning should be discouraged, where possible. Ledges should be sloping and light fittings should be fitted, wherever possible, with smooth transparent covers to prevent dust build up on complex diffusers and tubes, etc. All	Yes	Yes. The development is a new build modular solution meeting HBN/HTM guidance. Infection control advice provided into the ID strategy covering areas such as floorings and fabrics. IPC team will be involved in final product selection during commissioning phase.

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
			flooring in clinical areas should be smooth, impervious and coved.		
2.7	Is the ward/department layout simple and uncluttered?	Efficient cleaning will be simpler to carry out with the resulting increase in general cleanliness. Good air circulation over clean surfaces will inhibit mould growth and build-up of particulate matter.	Simple layouts without numerous recesses and projections into the floor space will aid cleaning and will reduce difficult to clean internal corners. Adequate, easy clean storage for the items and equipment to be used in the facility will prevent clutter and also aid cleaning.	Yes	The Infection Control team will be consulted as part of the on-going design process.
2.8	Are common areas, such as day rooms and the furniture within them, including light switches, switches and knobs on audio / visual equipment, etc., easy to clean?	Person to person and person to surface contact can spread the infection. Effective cleaning is essential, even in these non-ward areas	Day rooms, especially in elderly care wards are often shared with several side wards. Cross infection in these common areas can compromise even the most stringent efforts to contain infections within the wards themselves. Furniture in all clinical areas should be covered with a washable impervious material.	Yes	The IPC team will be consulted as part of the on-going design process. IPC team will be involved in final product selection during commissioning phase.
2.9	Is there adequate storage for equipment required for the normal operation of the ward?	Cluttered or crowded areas result from the lack of storage. Cleaning is often impossible without moving stored or stacked equipment. Suitable clean storage facilities will also reduce the risk of stored equipment becoming contaminated before use.	Pressure for operational space may result in storage areas being sacrificed. Existing areas may be difficult to redesign to provide storage.	Yes	Wards have separate equipment store provided. There are also dedicated areas to store hoists, linen, equipment such as pumps and drips stands and Resuscitation equipment
2.10	Is there adequate enclosed storage for linen required for the normal operation of the ward and other relevant areas?	Linen left stacked on open shelves or trolleys are susceptible to contamination.	Consideration may need to be given to storage during ‘high use times’ such as an outbreak of infection necessitating the changing of linen on a more frequent basis. Clean, uncontaminated storage will help to minimise re-infection.	Yes	Clinical departments have separate enclosed linen stores provided where appropriate.

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
2.11	Are linen storage facilities well located for efficient and convenient use?	It is important for linen to be easily accessible in convenient locations.	If storage is at one end of a ward, of poor design or in an inaccessible area, it will result in poor usage and encourage local solutions in corridors, washrooms and corners of wards, etc.	Yes	As above These are dispersed around wards.
2.12	Are the storage facilities well located for efficient and convenient use?	If poorly located they will not be used and cleanliness of both the equipment and the area where it is stored will suffer.	If storage is at one end of a ward, of poor design or in an inaccessible area, it will result in poor usage and encourage local solutions in corridors, washrooms and corners of wards, etc.	Yes	Ward storage is considered practical by the clinical team and the Infection Control team. The Infection Control team will be consulted as part of the on-going design process.
2.13	Are clean utility rooms designed to accommodate appropriate storage facilities with dedicated furnishings to support the work in the room?	Supplies should be kept off the floor. There should be sufficient worktop area to enable aseptic preparation to be carried out. These rooms should be adjacent to treatment rooms.	Different clinical areas may not use their clean room for aseptic techniques. Ward areas should be designed so that treatment areas are located adjacent to treatment rooms. Where clean rooms are used solely for storage there must be systems in place to discourage storage of non-clean items.	Yes	Ensure there is an appropriate amount of work bench. Appropriate placement of clinical waste bins and glove and apron holders.
2.14	Is the bed spacing appropriate in the 4 bed ward areas?	To reduce infection by airborne particles (primarily skin), aerosols caused by sneezing, nurses turning to treat a nearby patient without cleaning hands, etc. Lifting equipment also need to be considered.	Conflicting views on desirable spacing nationally and locally may result in poor or misinformed decisions during the design process. Pressure may exist to keep beds closer than possibly desirable due to cost and physical space available. Conversion of existing wards is often limited by building structure and may result in poor spacing. Existing bed head services may have to be repositioned during a refurbishment. It is for individual healthcare organisations to employ a risk-based approach in ensuring that a safe and effective physical environment is provided for carrying out clinical activities, manual handling, disability access, which ensures the privacy and dignity of patients.	Yes	BDP confirm that the bed centres in multi-bed bays are 3.6m^2

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
2.15	Is sufficient space maintained for activities to take place around the bed area to avoid cross-contamination between adjacent bed spaces?	The provision of sufficient space in clinical areas, particularly for each bed space, is one of the most important considerations in the planning and design of in-patient accommodation. A risk-based approach should be taken to ensure that the environment is appropriate for carrying out clinical activities and undertaking manual handling operations while maintaining a good standard of infection control. Health Building Note 04-01 – 'Adult in-patient accommodation' states: "Ergonomic studies have established that most activities carried out at the bedside can be accommodated within the dimensions 3600 mm (width) × 3700 mm (depth). This represents the clear bed space and does not include space for fixed storage, preparation and worktops."	For IPC reasons, it is imperative that staff are able to attend to one patient without impinging on the bed space or equipment of a neighbouring patient. In the majority of cases, the dimensions in Health Building Note 04-01 should be adequate (although bed spaces for critical care areas need to be greater for reasons of circulation space and the equipment used in these areas).	Yes	BDP confirm that the bed centres in multi-bed bays are 3.6m^2
2.16	Does spacing take into account the amount of and easy access to equipment around the bed area and access for staff to clinical wash-hand basins?	Self-explanatory	The range of equipment will depend on the condition of the patient.	Yes	Agree with standard room principles with regard to easy access at point of care. IPC team to review final locations during design process.
2.17	Are sufficient en-suite single-bed rooms	Single-bed rooms with en-suite facilities are optimum for infection	There should be sufficient en-suite single-bed rooms to prevent patients known to be a risk for spreading	Yes	Clinical Infection Service facility has 100% single rooms

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
	provided for segregation/isolation of infectious patients?	prevention.	infections being cared for in open ward areas. Healthcare providers should audit the use of en-suite single-bed rooms to determine where further local requirements and adaptations are greatest.		
2.18	Do multi-bed rooms have an en-suite WC and shower, plus a door to the main ward area?	It may be necessary to cohort-nurse a group of infectious patients in a multi-bed room if insufficient single rooms are available. Multi-bed rooms can also be used to cohort infectious patients if they have an en-suite WC and shower, and a door to the main ward area. When IPC guidelines are adhered to, research has demonstrated that cohort-nursing can successfully control and contain infection in hospital facilities.	The possible need for this should be considered at the design stage.	Yes	4 bed bays have dedicated shower and WC and an additional WC.
2.19	Does the design maximise the use of small multiple bed bays and single rooms where it should be possible to contain infection, if it occurs?	Outbreaks of infection within a ward or room can be more effectively contained within a small area.	Cost, revenue implications and available space often reduce the options to reduce ward size and provide single rooms. Ideally, single rooms, from an Infection Control perspective, are better than several bays.	Yes	Both wards allow for containing outbreaks of infection by providing a majority of single rooms.
2.20	Do the multi-bed bays have doors?	Multi-bed bays must have doors in order to isolate infection.	Operational procedure will determine how isolation is managed and doors remain closed. Security access may have to be considered.	Yes	Doors were included as part of the design process.
2.21	Are there suitable isolation facilities within the ward for use in the event of an outbreak of infection?	Quick, managed and monitored isolation of the affected patient within the ward may assist in controlling the outbreak.	The 'isolation' area is likely to already be in use by unaffected patients or patients suffering from other symptoms or diseases. Transfer of patients around the ward to free up the isolation area(s) may expose more patients to the risk of infection. Transfer to adjacent wards or escalation areas may increase the risk of infection spreading outside the ward.	Yes	All wards have single rooms that will be used for isolation. This meets the requirements set out by the IPC team.

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2.22	Are these isolation facilities designed to minimise the transfer of contamination?	The physical design in both layout and operation can contribute to effective IPC.	Ease of access to sink to clean hands prior to patient contact.	Yes	The Infection Control team will continue to be consulted as part of the design process.
2.23	Do the wards, theatres and general areas have suitable ventilation?	Is the ventilation provided suitable for the built environment and clinical need of the patient group?	This is a specialist area. The checklist is to confirm that the specialist design has taken IPC issues into account.	Yes	Ventilation will be designed and installed for the purpose of each area meeting HTM and HBN.
2.24	Are special ventilated isolation facilities included in the scheme?	A small proportion of patients requiring isolation will require special ventilated isolation facilities.	The provision of additional isolation facilities should be considered when designing new healthcare buildings and renovating existing buildings. Planned maintenance (including pressure/ air flow monitoring equipment) and revalidation programmes should be established for special ventilated isolation rooms to ensure the design criteria are maintained and met at all times.	Yes	Specialist advice to be provided during the design process.
2.25	Are these isolation facilities designed to provide isolation for patients with airborne infections?	Controlling the “airflow” in and out of rooms can minimise the spread of air borne infections. Dedicated lobby areas with room supported ventilation can expel airborne pathogens	Operational policy should determine how these rooms are used. Transferring patients from other locations to a dedicated increases infection risk.	Yes	Peter Hoffman[1] comments re +/- pressure. Specialist advice to be provided during the design process.
2.26	Are gel dispensers strategically placed at the point of care throughout wards and departments?	To encourage use at the point of care including treatment rooms and assessment areas.	These need to be prominent and not tucked away. Door operation and the circulation within an area will determine the most effective location for the dispensers.	Yes	Distribution and location of all gel dispensers and wash hand basins will be decided by the IPC Team. Infection control best practice is for alcohol gel dispensers to be placed at the point of care i.e. immediately next to the patient.
2.27	Are surfaces around and below the gel dispensers and washing facilities smooth and easy to clean?	Self-explanatory.	Staining and slippery surfaces could result from spillages.	Yes	As 2.26 above Advice to be provided during the design process.

[1] **Peter Hoffman:** *Consultant Clinical Scientist, Antimicrobial Resistance and Healthcare Infections Reference Unit, Public Health England*

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2.28	Does the design allow for these gel dispensers and the associated prominent signage?	Self-explanatory.	Internal partitions especially glazed types and door locations, etc may prevent the subsequent installation of these critical items	Yes	As 2.26 above Advice to be provided during the design process.
2.29	Are en suite toilet facilities (with a suitable hand wash basin) available within each ward and single room?	An outbreak of infection within a ward or room can be more effectively contained within a small area.	Cost, revenue implications and available space often reduce the options to reduce ward size and provide such facilities. Toilets outside the affected area or ward may become contaminated by patients suffering from diarrhoea and spread the infection to patients from previously unaffected areas.	Yes	All single rooms are en-suite. Bays are briefed to have a combination of WC/Shower per bay. Hand wash basins will be included in en-suite and clinical hand hygiene sinks will be located in the single room or bay itself.
2.30	Are en suite washing facilities (shower or bath) available within a ward or single room?	Outbreak of infection within a ward or room can be more effectively contained within a small area if high levels of local hygiene are possible.	Cost, revenue implications and space often reduce this possible approach.	Yes	All single rooms have en-suite. There is no requirement for baths specified in the clinical briefs. All bays are briefed to be en-suite (WC/shower).
2.31	Are there clinical hand wash basins within each clinical area (and adjacent to all areas of risk of infection) with free flowing water (no plug), no overflow and operated by suitable elbow tap which does not discharge directly into the outlet?	Gel use alone is not adequate to control infection. Soap and water also needs to be available.	Structural design and drainage runs within an existing building may make it difficult to provide such facilities in some areas. The overall design needs to take this into account. All areas refers to sluices and other potentially 'infection transfer' areas. There should be 1 clinical hand wash basin per 4 patients in Acute/elderly & long term settings.	Yes	The IPC team will continue to be consulted as part of the design process. Clinical hand hygiene sinks will be available in each bay and single room and will meet the minimum of 1 per 4 patients. Vanity sinks in patient washing areas should have plugs with no overflow.
2.32	Is the plumbing and general design designed	To avoid injury from hot water and the potential risk of Legionella within	Installation of thermostatic valves and the avoidance of 'dead legs' (giving rise to standing water in pipe	Yes	Design will meet HTM and L8 standards for the control of water

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
	to maintain safe water management, including suitable temperatures and good flow, for both safety and the control of Legionella and other water-borne organisms?	the ward.	work) in the physical plumbing design. Consideration of automatic flushing systems to be decided at 1:50 review.		borne bacteria including Legionella.
2.33	Are there suitable soap dispensers located adjacent to each wash hand basin?	Self-explanatory. Alcohol gel should not be positioned by sinks as it can cause confusion.	Ensure the wall behind the basin and around the soap dispenser is impermeable and easily cleaned. Must be liquid cartridge wall mounted dispensers and not 'top up' containers.	Yes	Options of sinks such as the "Bristol model" to be explored at the product selection stage.
2.34	Are there hygienic hand drying facilities and foot operated lidded bins at all hand washing locations?	Self-explanatory.	Paper sheets, not tear off rolls are preferable. Hot air blowers are considered as slow and may encourage the drying of hands on other surfaces. High velocity hot air blowers may contribute to the spread of infection if washing is poorly carried out. Paper towels required in all clinical areas & toilets.	Yes	These are part of the standard design
2.35	Is there space for storage of an adequate number of commodes available on the ward with central and easy access for staff?	Inadequate numbers will increase the risk of bed soiling, subsequent infection and pressures on bedding, etc.	Inadequate facilities will add to pressures on staff at times of high need. Adequate cleaning of commodes will become problematic if insufficient numbers are available. Storage facilities need to be well planned and positioned.	Yes	There is a commode clean store.
2.36	Are there adequate and suitable facilities on the ward for emptying and cleaning commodes and similar equipment?	As stated above	Equipment can become dirty and contaminated and lead to infection spreading. Areas, cleaning materials and hand washing facilities need to be dedicated to this purpose. Bed pan washer or Macerator required. Clinical hand wash basin for hand washing only. There should also be a large sink for washing other items of equipment.	Yes	Each ward has a dedicated commode cleaning room adjacent to the dirty utility room. The process will involve moving through a dirty room, into a wash area and then clean store.
2.37	Is the bedpan macerator location suitable?	Easy access is essential.	Ensure hygienic design with minimum clutter and difficult to clean surfaces. Ensure suitable hand washing facilities are adjacent to the macerator.	Yes	In sluice
2.38	Is there space for storage of an adequate number	Easy access and suitable storage is essential.	Long travel distances to the store would pose increased pressure on nursing staff and encourage	Yes	Clean pulp kept in commode store

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
	of bed pans available and is where they are stored suitable?		local storage solutions which could lead to pans becoming contaminated before use and spread infection within the ward.		
2.39	Are plastic holders (including bed pans and wash bowls) stored in such a way as to minimise stacking?	Stacking is known to lead to contamination when items are stored not fully dry.	Look to minimise plastic use through the use of disposables. Patients that use such products should store this in their room.	Yes	Wall storage solution to be specified during the design process.
2.40	Is the size of the dirty utility rooms adequate?	Self-explanatory.	Increased pressure on this room during an outbreak needs to be taken into account in the design. Cupboards should be provided for limited storage of items. Open shelving should be avoided.	Yes	All dirty utilities have been specified as fully compliant with HBN/HTM. An appropriate sized dirty utility room reduces inappropriate storage.
2.41	Do dirty utility rooms contain separate sinks for cleaning equipment and hand washing with a sluice for disposing of body fluids?	Self-explanatory	Hand washing facilities could be used for washing equipment.	Yes	Included as part of the design process.
2.42	Are there adequate, suitable and lockable cleaner's cupboards with cleaners sinks within the ward to provide and maintain suitable resources for the cleaning staff?	To ensure adequate cleaning is easy and well-resourced and effectively managed.	Cramped and inadequate facilities will reduce the ability of the cleaning staff to find and use and replace the appropriate materials. A cleaner's cupboard at one end of a long floor may be an efficient use of space, but this will result in infrequent changing or replenishment of cleaning materials and will reduce cleaning efficiency. Cleaners will require a room with cupboards to store items. A general sink & slop hopper as well as a hand wash basin for hand washing only.	Yes	Both wards have dedicated cleaner's cupboard. The Infection Control team will be consulted during the on-going design process
2.43	Is there sufficient clean storage space to	Self-explanatory	Storage location can influence poor practice with staff storing products adjacent to where they work.	Yes	Storage areas distributed through wards and departments.

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
	minimise storage of inappropriate items in dirty areas?				Dedicated equipment and linen stores also provided.
2.44	Does the design provide suitable locations for disposable apron and glove dispensers around the ward?	Self-explanatory	These need to be available at the point of use and easily accessible, but not near sinks to prevent gross splashing	Yes	To be agreed during the design process.
2.45	Are there dedicated areas for the various forms of clinical waste storage?	To ensure uncluttered corridors and ease of access, cleaning around them, etc.	Are the surfaces around the storage area capable of being cleaned effectively? Is storage capacity adequate? Does the location take into account the minimising of the risk of the spread of any infection – is it within the potentially controlled area? Are they located suitably far away from patients and staff? If you have a holding area – consider ventilation and security of the area. Staff may have sharps boxes!	Yes	Sharps bins are provided in the clinical prep rooms. There is a secure dedicated disposal hold in each area.
2.46	Drinking water must come from an identified drinking water outlet; clinical hand wash and en-suite sinks must not be used.	Access to drinking water is essential.	Easy access to drinking water supplies and the means of providing clean jugs and cups must be available and not shared with sinks or basins used for hand or equipment washing or cleaning. Kitchens dedicated to patient eating and drinking must be provided.	Yes	Water fountain and drink water taps available in the beverage bays.
2.47	Keyboards and associated IMT equipment must be of a design that is easily and regularly cleaned or provided with suitable keyboard covers which can be replaced or cleaned.	To ensure effective cleaning.	Washable keyboards are now available which would be more suitable.	Yes	IPC team to be involved in product selection
2.48	Has storage of, and ready access to, clean PPE been	This is important to encourage correct use of PPE and its safe	Access to appropriate PPE essential for infection control.	Yes	To be reviewed during the design process.

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
	considered in the design, plus appropriate waste receptacles for its disposal once worn?	disposal.			
2.49	Do the furniture and fittings in patients waiting areas and children play areas support IPC principles?	Furniture should be easy cleaned. Floors must be durable and easily cleaned. All equipment, finishes and furnishings in children play areas must be fluid resistant and be able to withstand cleaning and disinfection.	The importance of aesthetics and public facing areas may dominate over IPC.	Yes	IPC team involved in the initial ID strategy and advised principles. IPC team will be involved in final product selection.
2.50	Are there dedicated storage and cleaning facilities for larger items such as bed, trollies and wheelchairs?	Unused beds should not be parked in corridors. Bed cleaning facilities should be designed using a one way principle to prevent cross contamination	Cleaning and storage to be kept separate.	Yes	There is a basement bed wash area.
2.51	Has appropriate flooring, ceilings and wall finishes been selected for the different areas of the building?	Flooring should be seamless and smooth, slip resistant, easily cleaned and appropriately wear resistant. Carpets should not be used in clinical areas as they are difficult to clean. Walls should be smooth and impervious with appropriate guards considered to protect and collision damage.	Areas where aggressive chemicals and cleaning methods damages surfaces should be identified. Appropriate flooring should be used in these areas.	Yes	IPC team will be involved in product selection.
2.52	Are light fittings easily cleaned and does the	Efficient lighting will allow cleaning staff to undertake cleaning more	Lightening in store rooms and smaller areas must be adequate. Aesthetic lightening solutions chosen for	Yes	IPC involvement in product selection

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
	lighting selection provide appropriate illumination?	effectively. Easily accessible and cleanable light fitting discourage accumulation of dust.	public areas should be easily cleaned.		
2.53	Do other furnishings e.g. doors, windows, work surfaces allow for easy cleaning?	Doors should be cleanable, smooth, non-porous and fluid resistant with handles that are easily cleaned. Internal window ledges should be avoided or sloped to discourage clutter and dust.	Standardisation of products is not always achievable.	Yes	IPC involvement in product selection and on-going input into the design process.
2.54	Do hand washing facilities provided in public areas encourage and assist visitor to readily conform to good hand hygiene practice?	Self-explanatory	Sinks in public toilets and visitor areas should have access to hand washing facilities. Visitors should access the facilities provided on wards.	Yes	Included as part of the design process.
2.55	Have there been IPC input into the design of outside areas including the roof gardens and terraces and do these comply with IPC principles.	Patients will be able to access outside space and there is a risk of introducing infection via liquid particles.	Water features can potentially spread infection. Consideration should be given to irrigation systems.	Yes	The design will include no water features. There is underground irrigation and have no sprinkler systems. A proposal for using grey water was reviewed and rejected on IPC grounds.

Part 3: Management and operation of the facility

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
3.1	What facilities exist to dispose of or clean contaminated items?	To contain the items that could spread the infection.	Inappropriate storage in areas used for other purposes could spread the infection rapidly.	Yes	Dirty utility areas and secure disposal holds are designed throughout the building. Full FM services to support the disposal or cleaning of these contaminated items
3.2	What facilities exist for storage and disposal of general rubbish, including food waste, etc.?	Adequate segregation and timely disposal of rubbish is essential.	Suitable locations are to be provided and clearly different from clinical waste storage (not yellow bins, etc.) These areas and receptacles need to be regularly cleaned.	Yes	Each ward and department has a disposal hold room for storage and disposal of general waste. The security policy identifies areas to be secured and security access procedure will limit access.
3.3	What facilities exist for bed furniture and associated large equipment cleaning between use by different patients, especially at night? (Terminal cleaning after patient vacates bed)	Essential for the control of infection.	Operational policy will determine how this will work.	Yes	There is a designated bed wash area located in the basement. Full IPC involvement on the design brief.
3.4	Are there facilities available for the cleaning and storage of water jugs and patient crockery?	To ensure effective cleaning.	Kitchen dedicated to patient eating and drinking must be provided. These will have appropriate cleaning facilities. Cupboards dedicated to such drinking equipment must be provided.	Yes	Industrial kitchens located in ward kitchens.
3.5	Are there changing facilities available to staff to change clothes before and after work?	Self-explanatory	Lockers or secure storage will be required. Showering facilities should be sufficiently provided (but not so many that they don't get used and introduce infection risk).	Yes	CIS & Oncology wards have staff changing facilities with showers.

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
3.6	Does the design allow for easy movement of hospital equipment, including beds, during the outbreak and subsequent deep cleaning operation?	Self-explanatory.	Although a fundamental part of hospital designs for day to day operation such access issues have been overlooked historically.	Yes	All single rooms and 4 bed ward areas can be closed off allowing cleaning to take place.

Part 4: Management of construction of the new facility (including demolition and enabling works)

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
4.1	Has an infection control risk assessment been completed in relation to the construction refurbishment of the healthcare facility?	To minimise and manage risk.	See issues below, etc.	Yes	IPC involvement produced the aspergillus report
4.2	Will the new facility be constructed in the vicinity of existing patients and staff such as within the existing ward or building or immediately adjacent to the existing building?	Has the design and project planning taken into account the implications on existing patients and staff? CDM regulations will normally take the normal H&S implications into account; however control of infection is an area which may not feature in the usual risk assessments undertaken.	Maintaining clean conditions. Maintaining services without interruption. Maintaining facilities for isolation in the event of an outbreak of infection. Maintaining access to each ward and functional area and avoiding through traffic, etc. Maintaining storage facilities. Contingency planning and funding to allow for any remedial action needs to be factored into the project in all areas.	Yes	Decant programme already underway and IPC team involved.
4.3	Are there adequate allowances and controls over the effect of building and enabling works on staff and patients (and contractors)?	Demolition can release harmful particles into the air, including, apart from usual building hazards, potentially dormant spores from previous outbreaks of infection.	Screening off areas, sealing windows and ductwork (ensure adequate ventilation is maintained). Cleaning and air sampling, both active and passive, may be appropriate under some circumstances.	Yes	Nurse Consultant for IPC link to project meetings.
4.4	Are there effective communication routes established between Contractor and Project Manager	Self-explanatory	IPC risks can be addressed if they arise	Yes	As above

Part 5: Commissioning of the new facility

Ref	Check	Reason	Possible Issues to consider	Y/ N	Comments on Scheme
5.1	Will the IPC team be involved in the commissioning of the building?	IPC team involvement is essential in the commissioning process. A commissioning plan will be developed over the course of the project and will include snagging visits and IPC compliance.	Monitoring of the building will not be able to take place until the works are at a stage when site visits can be arranged. The plan will involve technical testing of air facilities in areas such as theatre and CIS. Adequate time must be built into the commissioning plan to allow this work to happen. The IPC team will also be involved in processes for the transfer of facilities, staff training, commissioning tests and any other process identified by the IPC team.	Yes	This will be an on-going process through the life of this project. The IPC team will continue to work closely with the project team.