Classification: Official

Publications approval reference: PRN00618

NHS England

Health Building Note 00-10
Part E: Curtains and tracking

Preface

About Health Building Notes

Health Building Notes (HBNs) give best practice guidance on the design and planning of new healthcare buildings and on the adaptation/extension of existing facilities.

They provide information to support the briefing and design processes for individual projects in the NHS building programme.

Language usage in technical guidance

In HTMs and HBNs, modal verbs such as "must", "should" and "may" are used to convey notions of obligation, recommendation or permission. The choice of modal verb will reflect the level of obligation needed to be compliant.

The following describes the implications and use of these modal verbs in HTMs/HBNs (readers should note that these meanings may differ from those of industry standards and legal documents):

- "Must" is used when indicating compliance with the law.
- "Should" is used to indicate a recommendation (not mandatory/ obligatory), i.e. among several possibilities or methods, one is recommended as being particularly suitable – without excluding other possibilities or methods.
- "May" is used for permission, i.e. to indicate a course of action permissible within the limits of the HBN or HTM.

Typical usage examples

- "All publicly-funded organisations must ensure that all contracts established to collect and treat waste conform to the Public Contracts Regulations." [obligation]
- "All low voltage (LV) distributions should be configured as TN systems." [recommendation]
- "Alcohol hand gels that do not contain siloxanes may be rinsed out and the packaging recycled or placed into the municipal waste stream." [permission]

"Shall", in the obligatory sense of the word, is never used in current HTMs/HBNs.

Project derogations from the Technical Guidance

Healthcare facilities built for the NHS are expected to support the provision of high-

This guidance is not mandatory (unless specifically stated). However, any departures/ derogations from this HBN – including the measures implemented – should provide a degree of safety not less than that obtained by compliance with this HBN.

quality healthcare and ensure the NHS Constitution right to a clean, safe and secure environment. It is therefore critical that they are designed and constructed to the highest and most appropriate technical standards and guidance. This applies when organisations, providers or commissioners invest in healthcare accommodation (irrespective of status, for example Foundation and non-Foundation trusts).

Statutory standards plus technical standards and guidance specific to NHS facilities:

- Health Building Notes
- Health Technical Memoranda
- Complete list of NHS estates-related guidance

The need to demonstrate a robust process for agreeing any derogation from Technical Guidance is a core component of the business case assurance process.

The starting point for all NHS healthcare projects at Project Initiation Document (PID) and/or Strategic Outline Case (SOC) stage is one of full compliance.

Derogations to standards will potentially jeopardise business case approval and will only be considered in exceptional circumstances. A schedule of derogations will be required for any project requiring external business case approval and may be requested for those that have gone through an internal approvals process.

While it is recognised that derogation is required in some cases, this must be risk-assessed and documented in order that it may be considered within the appraisal and approval process.

Derogations must be properly authorised by the project's senior responsible owner and informed and supported by appropriate technical advice (irrespective of a project's internal or external approval processes).

Sustainability and 'Net Zero Carbon' targets

The UK is leading the way on tackling climate change and improving sustainability, and the NHS is leading the way in England.

In 2019, the UK became the first major economy to commit to net zero emission by 2050. In 2020, the NHS set out its intent to support this ambition through its 'Delivering a "Net Zero" National Health Service' report. The report sets a clear target for achieving a net zero health service for direct emissions by 2040 and indirect emissions by 2045.

In 2021, NHS England published supporting guidance for the NHS Estate in its 'Estates Net Zero Carbon Delivery Plan', available to NHS staff via the Estates and Facilities Hub on the FutureNHS website, and further guidance is planned over the coming years.

The NHS estate has a critical role to play in achieving net zero carbon emissions. It is vital that every opportunity is seized across the NHS to do so, and the NHS Estate is an area where direct and cost-effective action can be taken with a high degree of confidence.

Executive summary

This Health Building Note (HBN) provides technical advice on curtains and tracking building components and their fitting and maintenance for both physical and mental healthcare environments. It gives guidance on the installation and maintenance of appropriate curtains and tracking for NHS facilities. A risk assessment checklist is appended. Chiefly, use of the HBN should have practical benefits in terms of:

- a safer environment for patients (including infection prevention and control);
- optimal ease of use and operational efficiency for healthcare providers.

Acknowledgements

The following individuals and organisations have contributed to the development, drafting and production of this guidance:

Jenny Gill, DiMHN

Philip Ross, DiMHN

Jeff Bartle, DiMHN

Tony Crumpton, DiMHN

Richard Hardy, BRE (Building Research Establishment)

Roland Dix, NAPICU

Jacqueline Russell, NAPICU

John Hier, NAPICU

Tom Tunnicliffe, NAPICU

Dr Faisil Sethi, NAPICU/South London and Maudsley

Dr Hamid Alhaj, NAPICU/Sheffield HSC NHS Trust

John Harrop, Greater Manchester Mental Health NHS Trust

Dominique Gardner, Royal College of Psychiatrists

Tom Ayres, Royal College of Psychiatrists

Anna Crossley, Royal College of Nursing

Tom Ayres, Royal College of Psychiatrists

Vanessa Ford, CQC

Peter Aldridge, NAHFO

Jonathan Campbell, Northern Care Alliance NHS

Karen Byard, Bradford District Care Trust

Andrew Armitage, Bradford District Care Trust

Daniel Allmark, Cheshire & Wirral Partnership NHS Trust

Michael Bellas, NHS England

Michael Rope, NHS England

Michael Ralph, NHS England

Alessandra Gambi, NHS England

Christine Anderson, NHS England

Frances Healey, NHS England

Fran Watts, NHS England

Frances Wood, NHS England

Ben Thomas, NHS England

Julie Windsor, NHS England

Sarah Kane, NHS England

Wendy Hicks, NHS England

Emma Wadey, NHS England

Sarah Holloway, NHS England

Tim Kendall, NHS England

Phil Smith, NHS England

Adrian Eggleton, NHS England

Ruth Davies, NHS England

Brinda Kugapala, NHS England

Linda Dempster, NHS England

Ian Storrar, NHS Health Facilities Scotland

Susan Grant , NHS Health Facilities Scotland

Connor Innes, NHS Health Facilities Scotland

Karima Et Taouil, NHS National Services Scotland

Calum Campbell, NHS National Services Scotland

David McNeill, NHS National Services Scotland

Mark Gapper, NHS Wales Shared Services Partnership

Simon Russell, NHS Wales Shared Services Partnership

Nigel Davies, NHS Wales Shared Services Partnership

Jessica Morgan, NHS Wales Shared Services Partnership

David Wilson, NHS Shared Business Services Northern Ireland

Robert Sergeant, NHS Shared Business Services Northern Ireland

Sue Holding, Archus

John Prendergast, Archus

Chris Tonge, Ryhurst

David Falkingham, Safehingeprimera

Mark Johnson, Custom Group

Christine Willis, Furnish Ltd

John Mannion, Ena Shaw

Brian Evans, Goelst UK

Carl Need, Maintenance Solutions

Mark Reeves, Goelst UK

Tim Peace, Marbäst Ltd

Steve Minney, Volvina

Peter Williams, Behrens

NHS England would also like to thank all those who took the time to comment and send contributions during the scoping and technical engagement phases of this document.

Glossary

BS	British Standard
BRE	Building Research Establishment
CAS	Central Alerting System
CDM	Construction, Design and Management
DiMHN	Design in Mental Health Network
EFA	Estates and Facilities Alert
HTM	Health Technical Memorandum
HBN	Health Building Note
ISO	International Organisation for Standardisation
MDRO	Multi-drug resistant organisms
PSRF	Patient Safety Response Framework
QAC	Quaternary ammonium compound
SIF	Serious Incident Framework

Terminology

In this HBN the following definitions apply:

Cubicle curtain track system
A component assembly to support curtains forming cubicles.

Track
The horizontal member which supports the runners and the curtains.

Suspended track
Track fixed at a level significantly below the ceiling soffit.

Ceiling fixed track
Track fixed directly to the ceiling soffit.

Track height
Dimension from finished floor level to underside of track.

Parking of curtains
The drawing back and bunching of curtains to predetermined positions when not in use.

Loading device
A device to facilitate the removal and replacement of curtains.

Low weight release system (ligature reduction)
Designed to reduce the possibility of patient self-harm, this is a system that will securely retain the load for which it is designed, but when an abnormal load is applied, it will release the load.

Contents

1.0 Introduction

Background

1.1 Health Building Note (HBN) 00-10 Part E replaces HTM 66, which was first issued in 1989 as a subset of NHS technical guidance building components topics.

1.2 HTM 66 formed part of a suite of documents that was intended to set and maintain appropriate standards for the specification of construction for common elements in healthcare buildings (for example doors, windows, flooring, ceilings). It covered design guidance on cubicle curtain tracking (such as track height, spacing and location of fixing points, different configurations of cubicle layouts) and the user requirements of that tracking (such as fire propagation, strength, cleaning and disinfection).

1.3 HTM 66 was moderately revised in 2005. This revision introduced text on low-weight release systems for reducing the risk of patient self-harm, following the 2000 report of an expert group on learning from adverse events in the NHS chaired by the Chief Medical Officer ('An organisation with a memory') that instructed mental health services to remove all non-collapsible bed and shower curtain rails by March 2002.

1.4 Following the introduction of these low-weight release systems, learning from circumstances where they failed to work as intended has resulted in a series of Estates and Facilities Alerts providing more information on effective selection, fitting and maintenance. This HBN references this advice. Readers should familiarise themselves with any relevant alerts issued since publication of this guidance.

Scope and status

1.5 HBN 00-10 Part E provides guidance for all healthcare sectors – primary and community, acute and mental healthcare environments.

1.6 This HBN was prepared for publication in 2020. The main sources of data used in the preparation of this HBN are listed in the References section. Readers should always ensure that they use the latest edition of all building legislation, British Standards and other relevant legislation and guidance, which may post-date the publication of this document.

1.7 The content of this HBN does not diminish either the manufacturer's responsibility for fitness for purpose of products or the design team's responsibility for selection and application of products to meet project requirements.

2.0 Ensuring that building components are fit for purpose

2.1 First preference should be given to products and services from sources which have been registered under ISO 9000 quality assurance system procedures, are to British Standards or other relevant certification schemes.

2.2 Suppliers offering products other than to British Standards should provide evidence to show that their products are at least equal to such Standards.

2.3 Readers should also refer to the Enforcement Policy of the Care Quality Commission (CQC).

3.0 Cubicle curtain track

Introduction

3.1 Readers should note that this chapter is primarily designed for acute hospital, community hospital and primary care environments. It is rare for mental healthcare environments to require cubicle tracking, but if cubicle curtain track were to be used in such an environment, all aspects of fitting that could create ligature risk (including but not limited to low-weight release systems) would need consideration. (See Chapter 6, 'Mental healthcare environments'.)

Constituent parts

3.2 Each cubicle curtain track system may comprise the following elements, all of which contribute to patient privacy, dignity and safety:

- track;
- wall fixing devices;
- direct-to-ceiling fixings – vertical hangers – V-hangers;
- bay connectors;
- end stops;
- gliders or runners;
- low-weight release systems (reducing ligature risk) for mental healthcare environments and other spaces as required.

Materials

3.3 All parts must be of corrosion-resistant materials. Choice of materials should be such that they do not suffer metal corrosion or polymer degradation.

3.4 Consideration should be given to the age of existing products, as deterioration can happen over time. A planned preventative maintenance policy should be in place.

3.5 No constituent part should contain material:

- known or reasonably believed to constitute a health hazard under normal conditions of use;
- which will give off toxic products in the event of a fire.

Strength

3.6 Track suspension (braced or unbraced) should have a breaking strength of not less than 180 kg between upper and lower fixing points at any location within the collapsible subsystem.

3.7 The weakest components in the system should be the gliders or runners, particularly where products have been used which are designed to fail in the event of weight being added (to reduce potential for use as a ligature – see Chapter 6, 'Mental healthcare environments').

Height

3.8 There are a number of factors to be considered in determining cubicle curtain track height and the related form of suspension or direct fixing to the ceiling:

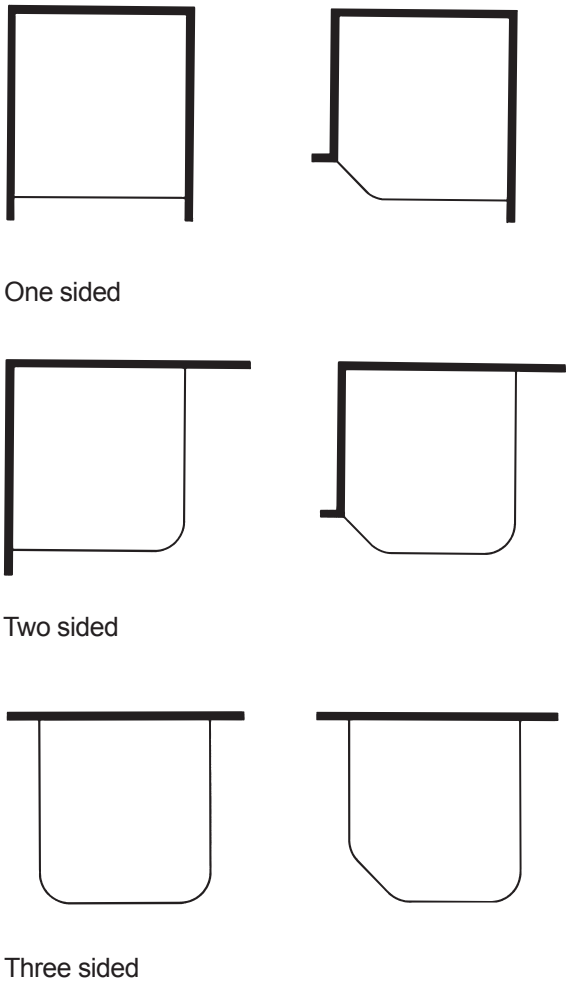
- One of the most important considerations is the effect of curtains, whether drawn or parked, on natural and artificial lighting.
- Design teams should also consider the appearance of track and curtain configurations within and around the cubicles. Track height may need to coordinate with window head height or glazed screen depending on configuration.

3.9 For suspended track installations, track height will normally be 2100 mm to underside of track.

3.10 Ceiling-fixed track applications are normally limited to ceiling heights of up to 2700 mm.

3.11 Many manufacturers work to these standard heights.

Figure 1 Single-bay cubicles



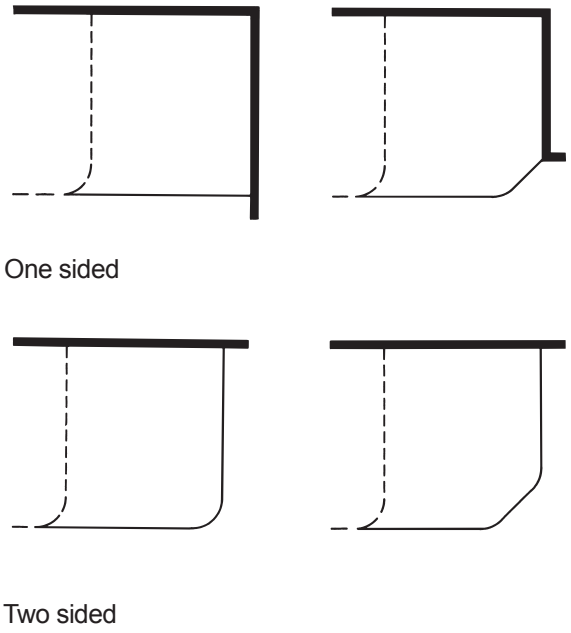
Layouts

3.12 Space within and around cubicles should take account of the dimensional guidance contained in the HBN series, especially HBN 04-01 – 'Adult in-patient facilities' and HBNs 00-01 to 00-04, which cover common activity spaces.

3.13 Cubicle curtains are usually required for privacy and dignity for certain clinical requirements; they should not be used for activities of daily living.

3.14 Examples of single- and multiple-bay cubicle layouts and their relationship to walls or partitions are given in Figures 1 and 2.

Figure 2 Multiple-bay cubicles



Track suspension

3.15 In both suspended and ceiling-fixed track systems, the spacing and location of fixing points should be strictly in accordance with the manufacturers' recommendations.

3.16 Suspended track must be restrained to prevent horizontal movement by:

- direct fixing of track to flank walls or partitions;
- tie-bars;
- V-hangers fixed to the ceiling;
- any combination of these, as appropriate to the layout.

Note

Special considerations for avoiding suspension fittings creating ligature attachment points will apply in mental health environments.

3.17 Note that V-hangers have a very limited application and should be designed out of a configuration where possible. A tie-bar with wall fixing provides much more effective lateral restraint.

3.18 Tie-bars comprise lengths of track which are not fitted with gliders or runners; this ensures consistency of appearance and standardisation of fittings.

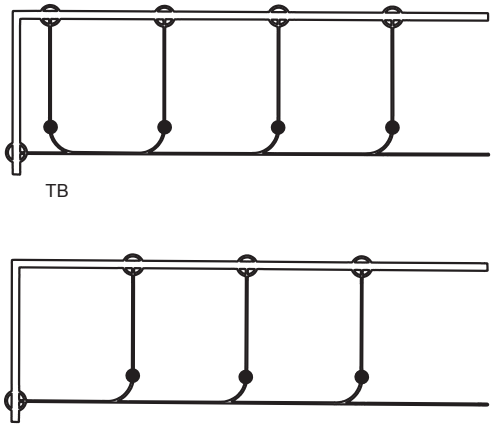
3.19 Ceiling-fixed track needs no restraint to prevent horizontal movement.

3.20 Hangers supporting track are generally of rod construction. However, wire hangers are preferred when the hanger is longer than 1000 mm or when raking hangers must be used because a ceiling fixing is not practical (for example, a weak membrane in an existing ceiling).

3.21 Obtain advice from the manufacturer whenever unusual project conditions apply.

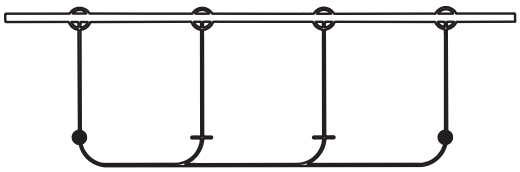
3.22 Some examples are given in Figures 3–5. In Figure 3, wall fixings at one end of front rail (with tie-bar where necessary) provide adequate lateral support for up to eight cubicles. Beyond that, the track manufacturer should be consulted.

Figure 3 Tie-bar



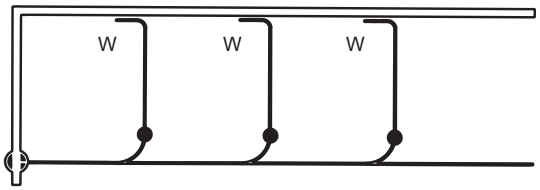
3.23 In Figure 4, V-hangers provide lateral restraint on inner tracks of up to three cubicles when no wall fixing on front rail can be provided. Beyond three cubicles, the track manufacturer should be consulted.

Figure 4



3.24 As shown in Figure 5, where the arrangement of windows, engineering services and bedhead units permits, curtains may be parked on an extension of the track fixed parallel to a wall and supported by a wall bracket. This support is as effective as the normal wall fixing which is used where track meets wall at 90º.

Figure 5



Legend

●	vertical hanger
—	V-hanger
◯	wall fixing
TB	tie bar (track without gliders/runners)
W	wall bracket

Cubicle curtains

3.25 As innovation and product development moves forward, project teams should consider available alternatives to cubicle curtains.

Selecting cubicle curtains

3.26 Commissioning and design teams must cooperate when selecting curtains, particularly when deciding on the thickness, colour and fullness of curtains and the adequacy of suspension tape.

3.27 Research carried out by the Society for Healthcare Epidemiology of America (2008) concluded that "Hospital privacy curtains are frequently contaminated with healthcare-associated pathogens which can easily be acquired on hands." Infection control within healthcare settings and minimising the risk from healthcare-associated infections is a major issue, with cubicle curtains, usually located in clinical areas, being one of the possible carriers of infection. Reference should be made to HBN 00-09 – 'Infection control in the built environment' for guidance.

3.28 Net zero carbon targets should be considered when choosing between disposable and laundered curtains. Between April 2021 and March 2022, the NHS generated 455,371 tonnes of waste and this included a proportion of single-use plastics (SUPs). Much of this waste could have been removed completely, either replaced by safe, reusable alternatives, or reused, remanufactured or recycled. It should be noted there are no infection protection and control reasons not to use a linen curtain, for instance in clinical areas where the transmission of infection may be an issue, so long as the curtain is changed regularly and is managed as infectious linen as per HTM 01-04 – 'Decontamination of linen for health and social care'. Cleaning frequencies must meet the National Standards of Healthcare Cleanliness 2021 requirements and have a robust audit system in place.

3.29 Materials which are anti-microbial, anti-bacterial and/or anti-sporidal may be considered to reduce the transmission of pathogens between people and the environment, particularly in areas where the transmission of infection may be an issue to assist in infection control; however, it should be noted that HBN 00-09 states: "Although a range of antimicrobial-impregnated products (such as surface coatings, paints and curtains) is available, there are, at present, no definitive data to support their efficacy in reducing HCAIs."

3.30 Design preferences and decisions are a local decision but must comply with all relevant guidance and legislation particularly regarding fire retardancy. All curtains must be treated with a fire-retardant tested in accordance with BS 5438-1:1976.

3.31 Project teams should also make reference to:

- Firecode HTM 05-03 Part C – 'Textiles and Furnishings', Chapter 5, 'Furnishings';
- BS 5867-2:2008 – 'Fabrics for curtains, drapes and window blinds. Flammability requirements. Specification'.

Cubicle curtain parking

3.32 A key consideration in detailing layouts is the parked position of cubicle curtains, either along a wall or at right-angles to it:

- Curtains parked along a wall allow maximum observation, but are less easy to draw, and call for careful detailing to avoid obstruction of adjacent engineering service outlets.
- Curtains parked at right-angles to a wall reduce observation but, by the same token, increase privacy. They are easier to draw and less likely to obstruct adjacent engineering terminals.
- Part of the curtain can be parked behind the bedhead, but it is unlikely that projection of the curtain from the wall can be eliminated entirely.
- Consideration should be given to the cleaning requirements, access to clinical areas and the anticipated use of space.

3.33 Parked curtains will obviously take up some of the working space of bed areas, and the parking space will vary depending on the fullness of the material:

- As a general rule, track required to park the curtains will be about 15% of track length when cotton fabric is used.
- For example, a bed space 2900 mm deep and 2500 mm long, assuming curtains for one side and the end are to be parked, will require 810 mm of track for parking.

Hanging cubicle curtains

3.34 Gliders or runners should be designed to enable attachment of curtains to rails by hooks, hangers or buttons.

Cubicle curtain changing

3.35 Cubicle curtains are a proven source of bacterial cross-contamination (Rutala, 2013). Cubicle curtain changing should be governed by an operational policy relevant to the area in which the curtains are located and the activities being undertaken within that area.

3.36 Speed and efficiency of the procedure are of great importance to the smooth running of healthcare environments and should minimise:

- loss of cubicle function;
- hindrance to other user activities by restricting or blocking circulation spaces;
- disturbance of patients;
- operator fatigue and the associated risk of accidents when working at or near ceiling height; and
- risk of transmission of infection due to movement of soiled curtains.

Cleaning access and requirements

3.37 Loading devices can enable staff to change curtains more quickly, assisting by transferring hooking and unhooking to normal working height. One device per floor is usually adequate. They:

- allow an untrained operative to load a curtain complete with gliders or runners;
- are for use on suspended or (with minor adaptation) on ceiling-fixed track;
- give full control of feed-on of gliders or runners.

3.38 Soiled curtains are to be unloaded directly into a container for soiled linen as per local organisational guidelines.

3.39 Routine/planned curtain changes are undertaken at the end of the cubicle furthest from the patient's head, and the fitting and removal of gliders or runners to the curtains takes place entirely outside the patients' area.

3.40 If the curtains have been used in a cubicle where a patient had known infection, or the curtains are visibly soiled, it will be necessary to undertake a risk assessment in alignment with local policy regarding the timing and location of curtain changes. Curtains should always be changed prior to cleaning.

3.41 The accuracy and frequency with which hooks or buttons are spaced along the operative width of the curtain is a key factor in ensuring that the curtain will draw easily around track bends. This will be achieved if the hooks or buttons are fitted to the curtain before delivery to the cubicle. The use of curtains with predetermined hook or button positions should be considered.

Window curtain track

Constituent parts

3.42 Each window curtain track system may comprise the following elements, all of which contribute to patient privacy, dignity and safety:

- track;
- wall fixing devices;
- end stops;
- gliders or runners;
- low-weight release systems (reducing ligature risk) for mental health environments and other spaces as required.

Materials

3.43 All parts must be of corrosion-resistant materials. Choice of materials should be such that they do not suffer metal corrosion or polymer degradation. Consideration should be given to the age of existing products, as deterioration can happen over time. A planned preventative maintenance policy should be in place. No constituent part should contain material:

- known or reasonably believed to constitute a health hazard under normal conditions of use;
- which will give off toxic products in the event of a fire.

Strength

3.44 Decision-making on the type and strength of curtain tracking to be used should consider the following:

- the location of the curtains (for example where patients may be at greater risk of self-harm – see Chapter 6, 'Mental healthcare environments');
- the room in which they will be used;
- the length of tracking required;
- the weight of the preferred curtaining material.

Height

3.45 The track would generally be located 10–15 cm above the window with approximately 15 cm to either side of the window recess where possible.

Window curtains

Selecting window curtains

3.46 Commissioning and design teams must cooperate when selecting curtains, particularly when deciding on the thickness, colour and fullness of curtains and the adequacy of suspension tape.

3.47 Curtaining to windows also assists in reducing noise levels. HTM 08-01 – 'Acoustics', paragraph 2.113 identifies the importance of materials to assist in noise reduction.

3.48 Location and activities to be undertaken within the room should be considered, together with decisions on whether curtains

are the most appropriate window covering for the area under discussion.

Window curtain parking

3.49 When curtains are parked, they should not obstruct vision or restrict daylight. HBN 00-10 Part D – 'Windows and associated hardware', Chapter 3, 'Natural light' states: "In addition to considering the position and size of the window in relation to the use of a space, the designer should consider the effect of obstruction to vision and restriction of daylight by framing members of the window and curtains or blinds."

Hanging window curtains

3.50 There are a variety of hangers, gliders, hooks and buttons available to hang curtains – the choice will be a local decision. Gliders should not be mixed. They should be those recommended for the rail chosen.

Note

Low-weight release systems (reducing ligature risk) for mental healthcare environments and other spaces as required must have compatible fixing components (see Chapter 6).

3.51 With use, curtains can often lose hangers, resulting in the curtains drooping and failing to cover the window as required. Issues of this nature should be rectified as soon as possible.

Window curtain changing

3.52 An operational policy for inspection of curtains, to ensure that all hangers and gliders are present and that curtains do not droop on the rail, should be in place.

3.53 Regular changing of curtains in line with infection control policies should be in operation.

Shower curtain track

Constituent parts

3.54 Each shower curtain track system may comprise the following elements, all of which contribute to patient privacy, dignity and safety:

- track;
- wall fixing devices;
- direct-to-ceiling fixings – vertical hangers (V-hangers);
- end stops;
- gliders or runners;
- low-weight release systems (reducing ligature risk) for mental healthcare environments and other spaces as required.

Materials

3.55 Thought should be given to the requirements for the track in terms of temperature and humidity within the area. All parts must be of corrosion-resistant materials. Choice of materials should be such that they do not suffer dissimilar metal corrosion. No constituent part should contain material:

- known or reasonably believed to constitute a health hazard under normal conditions of use;
- which will give off toxic products in the event of a fire.

Strength

3.56 Decision-making on the type and strength of shower curtain tracking to be used should consider the following:

- the location of the curtains (for example where patients may be at greater risk of self-harm – see Chapter 6, 'Mental healthcare environments');
- length of tracking required.

Height

3.57 A standard shower curtain is approximately 180 cm long, therefore the shower track should be located at approximately 190–196 cm from the floor – so that the curtain does not touch the floor, but sits inside and over the shower tray (where used) to avoid water seeping onto the floor.

Shower curtains

Selecting shower curtains

3.58 Before deciding on appropriate shower curtains, project teams should consider the location (such as a locked room, staff-only area or perhaps an area where patients will be accompanied by staff). See Chapter 6, ‘Mental healthcare environments’.

Shower curtain parking

3.59 Shower curtains should be gathered to one side of the rail when not in use, though care should be taken to ensure that they dry correctly. They should remain within the shower tray area to ensure that water does not drip on the floor outside.

Hanging shower curtains

3.60 Curtains must be hung using the correct hangers for the system in use.

Shower curtain changing

3.61 Shower curtains must be replaced in line with infection control guidelines.

4.0 General guidance

Exposed surfaces

4.1 All surface finishes should be capable of withstanding the range of temperature and humidity conditions encountered in healthcare environments.

Fire propagation

4.2 All structural parts of a system should be non-combustible as defined in BS 476-4:1970, but combustible materials may be employed for small non-structural parts.

4.3 Fabrics for curtains should comply with the specifications contained in BS 5867-2:2008.

Electrostatic charges

4.4 No system should, to any appreciable extent, develop or shed electrostatic charges.

Quietness and smoothness in operation

4.5 No quantifiable criteria are available for quietness and smoothness in operation, but systems should be selected with these two important requirements in mind.

4.6 Gliders and other components must be compatible with the system in use and not of a different type/make. This ensures efficiency, smoothness and quietness of the track.

4.7 Particular consideration should be given to the operation of gliders or runners at approximately 100 mm centres around bends of minimum radius.

4.8 During installation, care must be taken to avoid stepped joints where it is necessary to join track.

Resistance to mechanical wear

4.9 Gliders and runners and track-wearing surfaces should be capable of withstanding at least 20,000 cycles of curtain movement without appreciable loss of quietness or smoothness in operation, or visible wear.

5.0 Fitting and maintenance

Fitting, testing and training

5.1 Correct product installation of tracking is important to the performance of curtains and tracking products.

5.2 All tracking should be tested annually as per manufacturer's instructions to ensure that changes made to the configuration or environmental conditions have not adversely affected performance.

5.3 Training should be made available from the manufacturer or approved certified installers to estimators, surveyors, installers/ third-party installers, and staff to include an awareness of the product's properties and maintenance requirements.

Maintenance

General

5.4 An operation and maintenance manual should be compiled by the project team (this is generally the responsibility of the architect) and handed to the maintenance staff immediately following the practical completion of the contract.

5.5 The manufacturer's recommendations in respect of periodic inspection and maintenance should be followed to ensure that acceptable levels of performance are maintained.

5.6 It is important that there is a clear policy that covers ensuring that components have not become redundant or worn or superseded by safer systems. An inspection and replacement policy should be in place.

Replacement parts

5.7 When replacing any part of the tracking system, it is essential that the correct part for that system is used: gliders should be compatible with the system in place and not of a different type/make.

Housekeeping

5.8 The patient environment can become uninviting and not enhance the care being offered, particularly when hangers are lost or broken and curtains no longer fit the window correctly. Housekeeping duties should include a regular inspection of curtains to see where attention is required to ensure that any issues are corrected quickly.

Hygiene and cleaning

5.9 The design, materials and workmanship of a system should be such that when installed it will not generate dust or dirt.

5.10 The construction should be capable of withstanding the cleaning regimes in use by the organisation and in accordance with the requirements identified in:

- National Standards of Healthcare Cleanliness 2021;
- the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014: Regulation 15: Premises and equipment.

6.0 Mental healthcare environments

Curtains and tracking and the risk of self-harm

6.1 For some years, it has been recognised that a means of self-harm among in-patients in mental healthcare units is using curtain or shower rails as a ligature point. It should be noted that all curtains offer the opportunity to form a ligature, therefore it is important to ensure that the rail does not offer an anchor point for that ligature or other ligatures.

6.2 Where project teams are providing curtains and tracking in mental healthcare environments, this HBN should be read in conjunction with the following documents:

- DiMHN/BRE 'Informed Choices: Testing Guidance for Products in Mental Health Facilities';
- HBN 03-01 – 'Adult acute mental health units', particularly paragraphs 9.11 'Blinds and curtains' and 9.13–9.14 'Fixings'. Paragraph 9.11 states: "The mountings or tracking of curtains should not provide a ligature opportunity. They should not be removable to cause harm."

Policy and regulatory context

6.3 The reader's attention is drawn to the policy and regulatory context for improving patient safety, which includes the following:

- CQC 'Brief guide for inspection teams: Ligature points', which summarises and provides links to a range of other relevant regulation and policy;
- NHS Never Events data. Number nine on the list refers to mental health and the "failure to install functional collapsible shower or curtain rails";
- the 2000 Department of Health report 'An organisation with a memory', which instructs NHS mental healthcare trusts to take steps to remove all non-collapsible bed and shower curtain rails in their in-patient units.

Estates and Facilities Alerts (EFAs) related to curtain fitting

6.4 NHS EFAs provide information on avoidance of known risks. Detailed material on means of suicide is not made publicly available but is provided direct to healthcare providers. A summary of relevant EFAs to curtains and tracking is provided in this chapter. Readers should review the full alerts to understand the specific context and requirements.

6.5 The importance of correct choice of products, fitting, maintenance and testing should not be underestimated and has been recorded in the following NHS EFAs:

- **EFA/2019/003: Cubicle Curtain Tracks.** "Anti-ligature" type curtain rail systems can be used as a point of ligature when installed incorrectly, not appropriately maintained or not assessed as part of overall environmental health and safety risks. Recommendations are given on selection, installation, periodic inspections and user checks in mental

health in-patient facilities or wherever ligature reduction is risk assessed as required, including the need for special consideration of "break weights" where units care for people with low body weight. The organisation should ensure its "anti-ligature" type curtain rail system's specifications, installation and locations are regularly assessed for alignment with legislation and current published guidance. It should ensure that the EFA action points on "anti-ligature" type curtain rail systems are incorporated into service area risk assessments, routine maintenance upgrades and physical modifications, as well as the commissioning of new installations. Suitable checks on "anti-ligature" type curtain rail systems should be integral to the organisation's overall patient and environmental health and safety risk management.

- **EFA/2018/005 Assessment of anti-ligature points.** Following the death of a patient using a low-height ligature attachment point in a bathroom, a subsequent Coroner's Regulation 28 report highlighted that there was confusion over how ligature points should be assessed, and their removal prioritised. This EFA is not new guidance: it aims to clarify existing guidance and emphasises the importance of considering multiple factors in assessing the risk posed by ligature points and not using height as the sole determining factor. All ligature points in higher-risk unobserved private single spaces, regardless of height, are a priority.
- **EFA/2010/009: Flush fitting anti-ligature curtain rails: ensuring correct installation.** This Alert contains information which may be of use to persons wishing to self-harm within the healthcare environment. This EFA is not available publicly. It has been distributed widely to healthcare practitioners.
- **EFA/2010/003: Cubicle Curtain Tracks; Anti-ligature curtain rails (including shower curtains), risks from incorrect installation or modification.** Anti-ligature curtain rail systems (including shower curtains) which are installed incorrectly, or modified, may have increased risk of being used as a point of ligature. When installing anti-ligature curtain rail systems (all makes) it is vital that manufacturers' instructions are followed.
- **NHSE/2004/010: Bed cubicle rails, shower curtain rails and curtain rails in psychiatric in-patient settings.** The EFA action points are to carry out surveys, remove and replace various non-collapsible types with collapsible type, and then confirm actions complete via SABS (Safety Alert Broadcast System).
- **NHSE/2004/008: Cubicle tracking PVC dust cover.** The EFA action points are to remove potential risks from a PVC dust cover designed for conventional cubicle tracking to ease cleaning and disinfecting.
- **NHSE/2005/005: Suspended ceilings – ligature points.** The EFA action points are to identify suspended ceilings installed in unsupervised areas used by patients considered to be at risk of suicide. Risk assessments should be carried out including all appropriate staff. This should also identify any other potential risks (such as light fittings). Means of access to suspended ceilings should be removed in unsupervised areas.
- **NHSE/2004/03: G-Rail 2301 (window curtain tracking system).** The EFA explains that the manufacturer does not market this product as anti-ligature.

6.6 At the time of writing, NHS EFAs can be accessed as follows:

- England: the alerts can be accessed by subscribers to the Central Alerting System;
- Wales: the alerts are hosted on an intranet accessible to NHS staff at NHS Wales Shared Services Partnership (NWSSP);
- Scotland: the alerts are hosted on the Health Facilities Scotland (HFS) website;
- Northern Ireland: the alerts are hosted on the Northern Ireland government website.

6.7 Note that a number of alerts related to self-harm and ligatures beyond curtains and tracking have been issued.

6.8 Further learning may result in additional alerts being issued; users of this HBN should always check for material that post-dates the publication date.

Safety considerations for choice of curtain materials in mental healthcare environments

6.9 Curtain fabric should be selected that has a reduced risk of being turned into a ligature; thickness and strength of the fabric for anti-tear qualities are important considerations.

6.10 Shower curtains should be avoided through the use of designs such as wet rooms or through fixed anti-ligature screens or anti-ligature splashguards in place of curtains, but if used at all must be breathable and also anti-tear.

6.11 In mental healthcare facilities, curtaining to windows can assist in reducing noise levels, which in turn can assist in reducing potential for aggression and violence. HTM 08-01 – 'Acoustics' identifies the importance of materials to assist in noise reduction.

Safety considerations for cubicle tracking choice in mental healthcare environments

6.12 Generally, cubicle tracking will only be used as a single privacy curtain in areas where patients are accompanied by staff, such as treatment rooms and assisted bathrooms. All the considerations set out above still apply, as there may be occasions when a patient is alone for short periods of time.

6.13 With the move towards single bedrooms in the mental health sector, as identified in HBN 03-01 – 'Adult acute mental health units' (paragraph 8.40), there is less likelihood of cubicle tracking being used in dormitories to form in-patient bed bays.

6.14 Even if an in-patient area in a mental healthcare facility is dormitory style, consideration should be given on how to separate the beds in a safe manner, and any cubicle tracking should conform with all the considerations set out in paragraphs 6.1–6.7 above.

6.15 Suspended ceilings should not be used in a mental health environment accessible to patients, and therefore no tracking in a mental health facility will be fixed to a suspended ceiling.

6.16 See HBN 03-01 paragraph 10.65, which states: "Grid-type suspended ceilings should not be designed into service user-accessible areas" and paragraph 10.66: "Removable suspended ceiling panels should not be used, as they provide spaces for the concealment of prohibited objects and are sometimes constructed with materials that can be used for self-injury."

6.17 Where track is to be installed in a patient area, specialist components manufactured for use in the mental healthcare environment must be used.

6.18 If conventional slotted tracks are used, gliders from other systems will fit and might be

used. If these incorrect gliders are introduced, the system may not release when weight is attached, leading to a greater risk of ligature and self-harm. The use of coloured gliders can assist in identifying the incorrect use of non-specific gliders. These should not be mixed on one rail, as this can affect the release mechanisms on reduced ligature tracking.

6.19 The weight requirements for reduced ligature tracking should be considered in conjunction with the patient group. For example, a children's service or an eating disorder service may require a lower weight limit. There is no absolute value for the weight release figure. The specifics of the system and the manufacturer's requirements should be taken into account along with an assessment of risk relative to the patient group (including the lowest body weight of patients in the service) and the location of the tracking (especially whether part of the patient's body weight could be supported by anything other than the tracking, which could prevent the tracking from collapsing as the load is below its designed release load threshold).

6.20 Where load release curtain tracks are used, that is, where the track is released from magnetic or other push-fit wall or ceiling brackets, it is important to ensure that when the track is released it will fall to the floor without being lodged onto adjacent furniture, thus leaving it suspended at height. It is important to note that, having been released, track can used as a weapon.

6.21 A conventional slotted track should not be used if there is sufficient room to get something into the slot to form a ligature point.

Considerations for curtain fitting in mental healthcare environments

6.22 As outlined above, curtains and tracking are one small part of wider environmental safety considerations in mental healthcare environments. This HBN should be used in the context of the wider context for safety.

6.23 It should be noted that similar risks apply to potential for the fixtures and components of blinds to create ligatures and ligature risk.

6.24 The sections above outline the importance of curtain selection and maintenance on light, acoustics, and the general quality of the patient experience within a healthcare environment, and reference a range of guidance on this. These aspects are very important in mental healthcare environments where patients may have disturbed sleep or increased levels of agitation and distress related to noise, and where colour choice and design can all help create a therapeutic environment.

6.25 The general sections above note that loss of hangers/fixtures not only reduces the effectiveness of curtains in maintaining privacy, and managing light and noise, but gives a negative impression of the whole healthcare environment. The special fittings used in mental healthcare environments are more prone to these issues and with use, curtains can often lose hangers, resulting in the curtains drooping and failing to cover the window as required. Issues of this nature should be rectified as soon as possible. It can be useful to record how many hangers are on each curtain and their type; this assists in replacements being compatible.

6.26 Whilst this guidance does not encompass the prevention and management of behaviour that challenges, the potential for dismantled parts of collapsible curtain tracking to be used for self-harm or to harm others is included in HBN 03-01 – 'Adult acute mental health facilities', particularly paragraphs 9.11 'Blinds and curtains' and 9.13–9.14 'Fixings'. Paragraph 9.11 states: "The mountings or tracking of curtains should not provide a ligature opportunity. They should not be removable to cause harm."

6.27 Curtains should be weight tested on installation and that weight should be recorded. Each reduced ligature system is different in the means of deploying when load

is added, therefore it is important that accredited training from the manufacturer is undertaken before testing takes place.

6.28 Curtain material varies in thickness and in weight. It is therefore advisable to ensure that the weight and number of gliders is appropriate for the requirements of the track.

6.29 Tests carried out on components should not affect the integrity and reliability of the components tested in a configuration, and as a general rule parts should not need to be replaced with new each time a test is carried out; if this is the case, it ultimately compromises the results of a test carried out on a specific date, on specific components and to a standard procedure that most manufacturers would advocate.

Emerging and improving technologies

6.30 Curtain rail systems are in continuous development by specialist manufacturers. Users of this HBN should research emerging and improving technologies. For instance, there are now curtain rail systems that do not use a slotted track and are designed with runners/gliders to slide on the outside of the rail profile, with the rail being securely fixed to the wall.

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Publications approval reference: PRN00618