

DesignGuide:

Meeting the needs of older people in hospital settings



Kaarin Piegaze Lindquist, Sarah Barnes, Judith Torrington

Contents

1	Introduction	02
2	Principles	03
	Accessibility	03
	Physical support	03
	Sensory support	03
	Dementia	04
	Wayfinding	05
	Security	05
	Safety and health	05
	Support for the person	05
3	General design	07
	Building Elements	07
	Environmental Design	08
	Fittings and Furnishings	08
4	Location and access, entrance, reception	09
	Location and access	09
	External entrance	09
	Internal entrance and reception	10
5	Circulation	11
	Circulation routes	11
6	Public / shared areas	12
	Waiting rooms	12
	Staff bases/nurse stations	12
	Dayrooms/lounges	12
7	Patient areas	14
	Assessment/treatment rooms	14
	Single-bed rooms	14
	Multi-bed rooms	15
8	WCs / bathrooms / showers	16
	Accessible toilet/showers/bathrooms	16

This design guide is aimed at improving the experience of hospital environments for older people. It is a manual which can be used by those responsible for the design and management of hospital environments either at the initial stages of design or in the on-going upgrading and refurbishment, and by medical staff in the day-to-day management of clinical spaces. This guide identifies the design interventions that could be made to make hospital environments more accommodating to old age. It is not a comprehensive guide to the design of hospitals, but it focuses on those spaces within hospitals that are used by older people.

Around two thirds of people in hospital are over 65 years old, yet despite design guidance being available, hospital buildings have been criticised for failing to support the needs of older people. While many people function very effectively, even in advanced old age, they are likely to have an

increasing number of minor or major physical impairments and can be disabled by an environment that fails to compensate for these. Co-morbidities are common so a hospital setting needs to support a range of disabilities, not just the particular problem that causes an older patient to be admitted. Thus the care of an older patient is more complex and demanding than that of a younger one.

The guide is set out so that chapters one and two outline the principles that the design of a hospital should achieve in order to accommodate the needs of older people physically, mentally and personally. The remaining chapters list how these principles should be applied in the hospital building; starting with the design of general elements of the building such as doors, walls and windows, followed by recommendations for the building spaces in a sequence from the overall layout of the building to public outside areas, the public internal areas through to the patient areas.

Accessibility

It should be possible for people to access all relevant parts of the building with no more assistance than they would normally need. Many older people are severely restricted in their mobility. Every space should accommodate walking aids and wheelchairs. Walking distances should be limited: where people are required to walk long distances, rest areas with suitable seating should be available at 30 metre intervals. Seats should also be available in places where people have to wait, such as lift lobbies and entrance doors.

- Corridors should be wide enough for two wheelchairs to pass (1.8m between handrails)
- Space should be available for integrating wheelchairs and walking aids in all rooms used by older people and alongside seating areas.
- Steps should be avoided, and thresholds should be flush.
- Ramps should be no steeper than 1:15 gradient, no more than 10 metres long with landings at top and bottom.
- Ground and floor surfaces should not be slippery.
- Ground and floor finishes should not restrict wheelchairs.
- Handrails should be provided along both sides of routes.

Physical support

The building should be useable by people with reduced strength, flexibility, agility and manipulative

ability. The design should take account of loss of balancing ability. It should be possible to open doors without physical exertion. People should not be required to reach up or across or bend down; items that they need to manipulate should be between 600mm and 1200mm above floor level (560mm and 1400mm above floor level are the limits of reachability).

- Handles and levers should be smooth to the touch and have a positive action.
- Grab rails and handrails should be provided for support where people are at risk of falling.
- Seating design should take account of the difficulties some people have moving from a standing to a seating position (and vice versa), and provide good support for the seated body.

Sensory support

Vision

Sight loss is common in older people, and an increase in longevity means that there are substantial numbers in the population living with some degree of sight loss. Estimates indicate that in the UK one in eight people over 75 and one in three people over 90 has sight loss that is serious enough to be registered. Most registered blind people fall into the older age categories: around two thirds of people registered blind and registered partially sighted are over 75. Older people are more likely to have serious visual impairment, the most common conditions being: cataracts, glaucoma, age-related

macular degeneration, diabetic retinopathy and retinal detachment. Sight loss can also be the result of stroke. Symptoms of sight loss vary according to the condition, but they include: sensitivity to glare, slower adaptation to changes from light to dark, reduced sensitivity to contrast, colour saturation and retinal illuminance, inability to focus and reduced ability to see blue light. Older people who do not have a serious visual impairment are still likely to have some degree of sight loss. It is normal for vision to deteriorate with age, and most people have reduced focusing ability at close range and are much more affected by glare.

The built environment should take account of sight loss. Good lighting levels improve visibility for many people with sight loss, though it should be recognised that eye conditions vary in effect, and some people cannot tolerate bright light. Glare is seriously uncomfortable for many older people, and slow light/dark adaptation exacerbates the effect of glare, causing temporary blindness.

- Shiny surfaces should be avoided.
- Direct views of the sun and artificial light sources should be avoided.
- Localised personal lighting should be dimmable.
- The use of contrasting tone helps people identify objects against backgrounds, and should be used to pick out signage, fittings and ironmongery.
- People may have a limited visual field, so it is important to avoid clutter and tripping hazards below eye level.

Hearing

Hearing loss is widespread in older people. As with vision, types of hearing loss vary, but a very common condition is presbycusis or age-related hearing loss. This affects the ability to hear high frequency sounds, though not loud noises. The consonants used in speech are high frequency sounds so it becomes hard for people to interpret what is being said to them. The effect is exacerbated when there

is background noise, a situation that can often be found in hospital environments.

- Background noise should be minimized by reducing unnecessary sound sources and by using sound absorbent materials particularly in spaces where good communication is important.
- Spaces aiming for short rather than long reverberation times are better for hearing speech.
- Personal storage should include space to keep hearing aids within easy reach.

Dementia

Dementia is a loose term used for a range of conditions. It affects individuals differently, and takes on different characteristics over time. The built environment directly impacts on people with dementia in ways that can be helpful or alienating. A key characteristic of dementia is short-term memory loss, so people are effectively living in the moment. The space they find themselves in has an important role in orientation; where the function of the space is clear people know how to behave in it.

It has been argued that people with dementia find hospital environments so challenging that it would be preferable to treat them in specialist facilities. However, even if specialist units are provided, there will inevitably be patients with dementia in all hospitals, and the buildings should be designed to accommodate their needs. The majority of people with dementia fall into the older age group, and they are likely to have the same requirements for physical, sensory and personal support as anyone else. Environments that are not supportive can be more disturbing to people with dementia than to others: for example exposure to a blinding glare, which would be uncomfortable for anyone can completely disorient someone with dementia.

- Spaces should be clearly defined with obvious functions. Multi-purpose spaces are confusing for people with dementia.

- A number of people with dementia wander around. Buildings should accommodate this by providing safe walking routes; it is not acceptable to confine individuals to a single space. Routes should be clearly defined, safe, well-lit and allow people to make a circumambulatory track, with resting places and interesting features along the way.

Wayfinding

People should be able to find their way around hospitals easily and intuitively. They should be able to work out where they are, where they want to go and plan a route to help them get there. As hospitals are often large complex buildings, a good wayfinding strategy needs to be intrinsic to the layout and it should be robust enough to survive future upgrades and refurbishments. Circulation routes should conform to a readable pattern, which is duplicated throughout the building. People should be aware of the general direction of their final destination. Maintaining the wayfinding strategy should be a primary objective when hospital buildings are altered.

The routes around hospitals should allow segregation between 'public' and 'private' areas to maintain the dignity of patients. General services such as diagnostic imaging should have separate routes and waiting areas for in-patients and outpatients.

- Routes should be clearly designated and differentiated from surrounding areas.
- Routes should be well lit, preferably by daylight.
- Views to the outside to identifiable features help orientation.
- Separate zones should be clearly demarked.
- There should not be too many changes in direction. Each change in direction should be designed as a node with information on how to get to the next point.
- Vertical circulation (lifts and stairs) should be easily visible from horizontal routes.

- Routes should be safe to walk on, free from hazards, with non-slip floors.

Security

There should be safeguards against unwanted intrusion.

Safety and health

Older people are especially vulnerable to injury and health risks in a number of areas, and the building should take these into account:

- Older people are at higher risk than younger people of contracting infections from hospital and are less able to withstand them. Infection control is a clear priority.
- Measures need to be in place to prevent food poisoning.
- Cross contamination between 'dirty' areas such as sluice and laundry rooms and food distribution routes should be avoided.
- Measures need to be taken to prevent falls, and to mitigate the effect of them if they happen.
- Sharp edges on fittings and furniture should be avoided.
- Ageing skin is vulnerable to burns and slow to heal from them. Sources of heat should be protected. Radiators and pipes conveying hot water should be covered and water temperatures for washing kept below 43°C.

Support for the person

Dignity

People should not be exposed in ways that would be unacceptable in their normal lives. It should never be possible for the general public to see a patient in an undressed state, or in personal distress. This implies that there should be separate routes and waiting areas for services, which are used by both in-patients and the general public.

Single room accommodation with en-suite washing and toilet facilities is the best way of achieving dignity and privacy for patients. There is however

some evidence that older people can feel isolated in single rooms, and prefer small multi-bed wards. Wards should be single sex with self-contained bathing and toilet facilities within easy reach of patients. Commodes are not acceptable. In-patients should not have to reach bathing and toilet facilities via a public route.

Privacy

Private conversation should be possible between hospital staff and patients and visitors. Since so many older people have some hearing loss it is necessary to speak very clearly and sometimes loudly in a space with no background noise to enable them to hear. Therefore private conversations are not possible in multi-bedded wards or treatment areas separated by curtains. Separate, acoustically private spaces should be available for people to communicate about sensitive and personal issues.

Privacy should always be available where people are exposed. It should not be possible to see, hear or smell people using the toilet in the in-patient areas; communal toilets separated by partitions are not acceptable.

Visitors, family, friends

Many older people's visitors will themselves be in the older age group, and have similar needs for a supportive environment. Visitors should be able to find their way around easily, especially as older patients are commonly moved around hospitals. Someone who is admitted to A&E is likely to go from there to an assessment unit before being placed in the appropriate ward. This process may happen quite quickly, so the visitor may have to find a different destination every day. There should be clearly marked reception areas at hospital entrances and ward entrances. Visitors require good wayfinding routes from the entrance to the hospital site through to the destination ward. They are likely to use the cafés, shops, toilets, and areas set apart for reflection and spiritual support. All these facilities should be designed to accommodate older people's needs.

Visitors need to be able to communicate easily with patients and with the hospital staff, and need appropriate levels of privacy. The area beside the bed should be designed to accommodate stable, supportive seating; lightweight stacking chairs are not appropriate.

Connection with the outside world

People should be able to see the outside world when they are in hospital. The wish to see outside is often expressed, and there is evidence that a view of the sky and natural features such as trees has a measurable therapeutic effect. This can speed up recovery and reduce the time people stay in hospital. Views are particularly important in places where people spend time: in hospital beds, or waiting rooms. Wayfinding is much easier where routes have views which contain recognisable landmarks. While it is important to enable people to be able see out, there is a need to maintain privacy from people looking in, so the position of windows needs careful consideration.

Control

It should be possible for people to control their own immediate environment in terms of lighting levels, protection from bright sunlight, ventilation and heating.

Building Elements

Walls

- should be decorated in light colours, be visually distinct from the floor, with a matt finish
- wall finishes should be easy to clean

Floors

- flooring should be visually distinct from fittings, furnishings and walls
- flooring should be non-slip with a non-reflective surface
- ensure floors are easy to clean with integral skirting sealed to walls
- flooring should not restrict wheelchairs

Doors

- doors should open with minimum pressure
- doors should swing closed by themselves and have closers that incorporate a delay and final damping
- door colour should contrast with colour of surrounding walls and have non-reflective satin or matt finish
- unless doors open automatically or are power-assisted there should be 300mm space between the opening edges and any adjacent walls
- doors should open through a full 90 degrees if hinged and have an opening more than 800mm wide for a single door or 1600mm for double doors
- any glazed doors should have distinct visible markings to prevent people from walking into

glass, and be varied and distinct from other surrounding glazing

- door furniture should contrast in colour to door colour and have a non-reflective finish
- provide easy to operate lever handles
- ensure all thresholds are flush with floor level

Windows

- ensure that the placement of windows does not compromise patients' dignity/privacy
- views through windows should ideally include views of open sky, spaces where there is human activity, near and distant features of interest and some natural features
- avoid placing windows where there is an obstructed view, such as a blank wall
- window opening devices should be capable of being operated by older patients and fixed more than 750mm and less than 1200mm from finished floor level
- window locks should be fitted
- ensure window sills are less than 600mm above floor level to allow for viewing out from a seated position or while lying in bed or on a trolley
- shading devices should be present for S, E, W, facing windows and fully cover the window
- ensure shading devices are operable by people using the space

Environmental Design

Lighting

- ensure artificial light is well distributed with no areas of deep shadow
- light fittings should conceal light source from view

Heating

- heating systems should be under-floor heating or radiators fitted with low surface temperature covers, with a maximum surface temperature of 43°C

Ventilation

- ventilation should be sufficient to ensure no bad odours are present
- natural ventilation should be provided where possible

Fittings and Furnishings

Handrails

- provide suitable handrails along all routes; handrails should be circular with rounded edges and have no protruding ends that can catch on clothing or handbags
- ensure handrails are smooth to the touch and are contrasting in colour to the walls

Seating

- provide seating with good lumbar and head support and arm rests projecting in front of seat; seats should remain stable when arm rests are used to raise or lower the body
- allow integrated space in seating layouts for wheelchair users
- ensure seating is visually distinct from floors and walls

Signage

- ensure signage is clearly visible and easily comprehended with a surface that is non-reflective
- provide signage to all areas including lifts and staircases
- signage lettering should contrast in colour and tone to the background and the sign should be

fixed more than 1400mm and less than 1700mm from finished floor level

- signage should use colour coding to highlight different zones of the building

Notice boards

- should be placed in clearly visible locations and have localised lighting highlighting a non-reflective finish
- place notice boards more than 1400mm and less than 1700mm from the finished floor level
- notices should be clear, organised and presented such that hierarchical relevance is apparent
- ensure notices are easy to read with larger print and placed on appropriate notice boards
- notices should have a matt surface

Desk/Service Counter

- ensure counters have a wheelchair accessible section at least 1000mm long, 800mm high with 750mm legroom underneath
- induction loops should be fitted
- speech enhancement systems should be fitted
- provide localised lighting to increase visibility for reading and writing

4 Location and access, entrance, reception

Location and access

General design

- the general organisation of the building should be legible from the outside

Layout

- it should be possible to visually identify the main entrance to the hospital from the site entrance
- entrance and exit routes used by patients and visitors should be separate from emergency vehicle routes and service delivery vehicle routes
- visitor and patient vehicles and taxis should have a drop off point that is directly adjacent to the hospital entrance
- some parking should be available within 30m of the A&E entrance and the main hospital entrance
- the provision of parking for people with disabilities should be clearly visible from the site entry and be within 30m of the entrance
- parking spaces for use by people with disabilities should be at least 3.3m x 4.8m in area
- bus stops should be within 30m of the main entrance
- provide clearly visible and level pedestrian access routes across the site, from bus stops and parking areas to the entrance, ensuring pedestrians are safe from traffic flow
- pedestrian routes should be wide enough to accommodate two wheelchairs side by side (more than 1800mm)
- resting areas with weather protection should be provided along pedestrian routes at less than 30m intervals

Environmental design

- artificial lighting should be well distributed within the hospital grounds with no areas of deep shadow

Services and systems

- safety lighting should be provided to indicate potential hazards (i.e. paths, ramps and steps, etc.)
- security lighting should be provided

Fittings and furnishings

- ensure signage is visible from all approaches along vehicular and pedestrian travel routes

Finishes

- the parking spaces should be easy to see with bays clearly painted on a firm, even ground surface
- all pedestrian crossing points should have tactile indicator paving and dropped curb sections
- the pedestrian routes should be clearly distinguished through use of texture and colour, and have firm, even, slip-resistant surfaces

External entrance

General design

- access to the building should be level or only gently ramped (gradient less than 1:20) with no steps

Layout

- the building entrance should be visible from the public thoroughfares and the site entrance
- the entrance should be clearly recognisable by being more brightly lit and by the use of greater scale

- provide a weather-protected drop-off bay for vehicles and taxis that is long enough to allow for short term parking for at least two vehicles
- seating should be provided
- if an on-site smoking area is provided it should be clearly delineated, weather protected, and separate from the general forecourt area with adequate cigarette disposal methods
- the smoking area should be no further than 30m from the entrance but not directly beside any entrance doorway or windows. It should provide an adequate amount of seating and space for wheelchair and mobility scooter parking including a wheelchair turning circle more than 1500mm in diameter

Environmental design

- the area should be illuminated by day and night

Fittings and furnishings

- mat wells should be recessed and flush to the ground level

Finishes

- ground finishes should be slip-resistant, non-reflective and easy to clean
- entrance mats should be wheelchair accessible.
- ground finishes should be visually distinct from walls, fittings or furnishings

Internal entrance and reception

General design

- the area should be clearly delineated as being 'public space' by the use of greater scale of building form/elements/layout

Layout

- circulation routes to and from the entrance and reception areas should be direct and straightforward
- there should be adequate congregation space in front of the reception desk in addition to the circulation route width of 1800mm

- storage areas for wheelchairs and electric mobility scooters should be provided, with electrical outlets for charging mobility scooters
- ensure sufficient space is present for a wheelchair turning circle at least 1500mm in diameter to allow for the transfer of a person from a wheelchair or electric mobility scooter to a trolley

Environmental design

- the reception area should be brightly lit by day and night

Services and systems

- the reception counter area should include an induction loop to support people with hearing impairments

Fittings and furnishings

- the reception counter should include a wheelchair accessible section at least 1000mm long, 800mm high with 750mm legroom underneath

Finishes

- fittings and furnishings should be visually distinct from walls and floor and surfaces should be non-reflective

Circulation routes

General Design

- circulation routes should be clearly delineated as 'public space' by the general use of greater scale to ensure they are visually distinct and easily recognisable

Layout

- circulation routes between key areas should be direct and straightforward involving no more than one change in direction travel routes should not compromise patients' dignity and privacy; there should be separate routes and waiting areas to general services (such as visual imaging) that are used by both out-patients and in-patients
- corridors should be wide enough to accommodate two wheelchairs side by side (more than 1800mm) with resting areas provided at less than 30m intervals

Building Elements

- corridor junctions should have splayed or radius corners
- corridors should have some windows with views to outside identifiable features

Environmental Design

- routes should be well lit by day and night
- changes in direction, internal landmarks and nodes should be highlighted
- shading devices should be provided to avoid glare

Fittings and Furnishings

- there should be distinctive internal landmarks along circulation routes at 30m intervals
- obstructions along the routes should be avoided and fittings such as fire extinguishers, radiators, etc. should be recessed
- circular, smooth handrails should be provided on both sides of the entire circulation route
- seating placed along circulation routes should be recessed to maintain a travel route of minimum width of 1800mm

Finishes

- artwork and plants should be provided to soften the institutional nature of the building; they can be used to designate internal landmarks
- fittings and furnishings should be visually distinct from walls and floor and surfaces should be non-reflective
- contrasting colours and textures can be used to help identify different zones of the building

6

Public / shared areas

Waiting rooms

Layout

- seating layouts should be appropriate for people using walking aids; seats arranged in rows are not accessible for people with reduced mobility
- space should be available to integrate wheelchair users into the seating layouts
- waiting areas should have windows giving views to the outside
- WCs including an accessible WC should be provided adjacent to the waiting area

Environmental Design

- the area should be illuminated day and night
- natural light should be present, allowing for sunlight to be present at some point throughout the day: adjustable window shading devices should be provided to prevent glare

Fittings and Furnishings

- a drinking water dispenser should be provided
- a public freephone should be provided

Finishes

- artwork and plants should be provided
- fittings and furnishings should be visually distinct from walls and floor and surfaces should be non-reflective

Staff bases/nurse stations

General Design

- staff bases should be clearly identifiable by the general use of greater scale of building form, such as a change in ceiling height and open space surrounding the area

Layout

- circulation routes to and from staff bases should be direct and straightforward without too many changes in direction
- provide congregation space in addition to the 1800mm width of the surrounding circulation route
- the location should allow staff to easily supervise patient areas

Environmental Design

- lighting should be brighter than adjacent spaces

Fittings and Furnishings

- fixed-in-place obstructions should be avoided in this area

Finishes

- fittings and furnishings should be visually distinct from walls and floor and surfaces should be non-reflective

Dayrooms/lounges

General Design

- dayrooms should be clearly recognisable and non-institutional

Layout

- access to dayrooms from bed areas should be straightforward with no more than one change in direction
- staff should be able to visually supervise dayrooms

Environmental Design

- lighting should be evenly distributed with no areas of deep shadow
- a variety of lighting should be provided, including ceiling, wall and task lighting
- light sources should be shielded to eliminate glare
- light switches should be dimmable
- ensure that light fittings closest to windows can be switched on and off independently of lights furthest from windows
- natural light should be present, allowing for sunlight to enter at some point throughout the day
- light shading devices should be provided which can be easily operated by patients

Fittings and Furniture

- fixed-in-place obstructions such as planters or columns should be avoided
- seating suitable for the older user should be provided, with good lumbar and head support and arm rests projecting in front of seat; seats should remain stable when arm rests are used to raise or lower the body
- avoid placing seating around the edge of the room; there should be variation in seating orientation and organisation to allow for different types of social interactions

Finishes

- artwork and plants should be provided to soften the institutional nature of the building
- different flooring and variation in materials used for seat coverings can make the rooms feel less institutional
- fittings and furnishings should be visually distinct from walls and floor and surfaces should be non-reflective

Assessment/treatment rooms

General Design

- easy and direct observation of patient area should be possible by staff
- travel routes to and from relevant areas such as reception, staff or nurse bases and waiting rooms, should be easily understandable
- visitor access routes to and from treatment and assessment room areas should not compromise patients' dignity and privacy

Layout

- ensure there is adequate space for two clinicians to move freely around trolley or bed and deliver care from all sides, as well as space for two relatives or friends to be present
- WCs, including an accessible WC should be adjacent to the rooms

Building elements

- aural and visual privacy should be created through the use of appropriate materials and walls; curtains do not provide adequate levels of privacy
- WC doors should be lockable but include an override locking mechanism for use in emergency by staff
- a clear visual occupancy indicator should be fitted

Environmental Design

- natural light should be present
- light fittings should be carefully placed to avoid creating glare for a person lying on a bed or trolley; light sources should be shielded

Fittings and Furnishings

- seating for at least two people should be provided to accommodate family members or friends

- secure storage for the patient's personal items should be provided
- location of storage area should allow for monitoring by patients/staff

Finishes

- fittings and furnishings should be visually distinct from walls and floor and surfaces should be non-reflective
- consider the design of the ceiling to increase visual interest for patients lying on trolleys and beds for extended periods of time

Single-bed rooms

General Design

- easy and direct observation of the patient area should be possible by staff
- travel routes to and from relevant areas such as reception, staff or nurse bases and waiting rooms, should be easily understandable
- rooms should have windows giving views which can be seen by a patient in bed (maximum cill height 600mm from floor level)
- it should not be possible to see into the room from the outside

Layout

- ensure that adequate space is given in the room for two clinicians to move freely around the bed and deliver care from both sides, as well as space for two relatives or friends to be present
- monitoring by staff of travel routes to the patient area should be possible
- WCs should be adjacent to the rooms

Environmental Design

- natural light should be present with sunlight entering the room for part of the day
- blinds or shading devices which can be operated by patients should be provided
- light fittings should be carefully placed to avoid creating glare for a person lying on a bed

Fittings and Furnishings

- seating for at least two people should be available to accommodate visitors
- secure storage for personal possessions should be provided
- storage space for small personal equipment such as hearing aids and glasses should be provided within easy reach of the bed
- the location of the storage area should allow for monitoring by patients/staff
- storage should be accessible by wheelchair users

Finishes

- fittings and furnishings should be visually distinct from walls and floors and surfaces should be non-reflective
- consider the design of the ceiling to increase visual interest for patients lying on beds for extended periods of time

Multi-bed rooms

General Design

- easy and direct observation of patient area should be possible by staff
- travel routes to and from relevant areas such as reception, staff or nurse bases and waiting rooms, should be easily understandable
- visitor access routes to ward areas should not compromise patients' dignity and privacy
- rooms should have windows giving views which can be seen by patients in bed (maximum cill height 600mm from floor level)
- it should not be possible to see into the room from the outside

Layout

- ensure that adequate space is given in the room for two clinicians to move freely around each bed and deliver care from all sides, as well as space for two visitors to be present
- monitoring by staff of travel routes should be possible
- WCs should be adjacent to the wards, and reachable by patients without entering a public travel route

Building elements

- screens for visual privacy should be provided between beds

Environmental Design

- natural light should be present with sunlight entering the room for part of the day
- blinds or shading devices which can be operated by patients should be provided
- light fittings should be carefully placed to avoid creating glare for a person lying on a bed

Fittings and Furnishings

- space should be available for seating for at least two visitors at the bedside
- secure storage for personal possessions should be provided
- storage space for small personal equipment such as hearing aids and glasses should be provided within easy reach of the bed
- location of storage area should allow for monitoring by patients/staff
- ensure height of storage does not require reaching or bending and is accessible by wheelchair users

Finishes

- fittings and furnishings should be visually distinct from walls and floor and surfaces should be non-reflective
- consider the design of the ceiling to increase visual interest for patients lying in beds for extended periods of time

8

WCs / bathrooms / showers

Accessible toilet/showers/bathrooms

General Design

- WCs should be single sex
- WCs should be sound proof
- the door to the WC should not open directly onto public areas, and the toilet should not be immediately visible upon opening the door

Layout

- ensure the space is accessible for wheelchair use by providing a turning circle at least 1500mm in diameter and allowing for 300mm space between the opening edge of the door and any adjacent walls
- ensure that the WCs are within easy reach and visually apparent from the ward areas

Building elements

- any doors should be lockable for security and privacy but include an override locking mechanism for emergency access by staff
- a clear visual occupancy indicator should be fitted

Environmental Design

- lights should be operated by pull-cords which contrast in tone and colour to the adjacent surfaces fitted 1200mm above floor level
- task lighting should be provided at the washbasin

Services and systems

- ensure all pipe work is sealed in a duct
- hot water temperature should not be more than 43°C

Fittings and Furnishings

- provide support rails around all fittings and ensure they contrast in colour with adjacent surfaces

Shower / Bath

- the shower or bath should be reachable by lateral transfer from a wheelchair with 600mm space on each side to allow for assistance by a carer
- support rails, hoists and shower seats should contrast in colour with adjacent surfaces

Toilet

- the toilet should be reachable by lateral transfer from a wheelchair with 600mm space on each side to allow for assistance by a carer
- provide paddle-shaped flush handle on toilet
- toilet seat and covers should contrast in colour with the toilet bowl, cistern, and adjacent surfaces
- fit support rails on both sides of toilet

Washbasin

- the hot and cold tap handles should be 'large cross' or 'lever' type and be identifiable by touch and bold visual clues
- ensure that a safety temperature thermostat is present to provide water at a temperature no greater than 43°C
- support rails should be fitted around the washbasin
- allow 600mm each side of washbasin to allow for assistance by a carer

Mirror

- a mirror should be provided that is suitable for people in both seated and standing positions (850mm above floor level – 1700mm above floor level)

Soap dispenser

- provide a soap dispenser that is at a height between 1000mm and 1100mm from floor level

Paper towel dispenser or hand dryer

- provide a paper towel dispenser or hand dryer that is at a height between 1000mm and 1100mm from floor level

Finishes

- fittings and furnishings should be visually distinct from walls and floor and surfaces should be non-reflective

Acknowledgements

“Design Guide: Meeting the needs of older people in hospital settings” is a guide to assist with the design of hospitals in relation to the needs of older people. This guide was developed and refined at the School of Health and Related Research, University of Sheffield, in a research project funded by the NHS National Institute of Health Research (NIHR), Physical Environment Research Programme as part of the NIHR Comprehensive Clinical Research Network.

This guide was created with the support of the members of the “Built Environment in Acute Care

for Older People” research team: Stuart Parker, Andrew Booth, Sarah Barnes, Mike Nolan, Annette Haywood, Kaarin Piegaze Lindquist, Hazel Marsh, Andrew Dearden and Judith Torrington. The views and opinions expressed are those of the authors, and not necessarily those of the NHS, the NIHR or the Department of Health.

We would also like to acknowledge the support of the National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care for South Yorkshire (NIHR CLAHRC SY).

www.clahrc-sy.nihr.ac.uk



© 2013 The University of Sheffield

