

Improving patient experience in A&E

Introduction

There are many reasons for incidents of violence and aggression occurring in A&E. Staff, patients and other service users are usually emotionally tolerant, but feelings of anxiety, fear, pain and loss which are often associated with visiting A&E can reduce tolerance thresholds and people may become frustrated, violent or aggressive.

Typically the patient experience is very good in terms of clinical care, but the experience of non-clinical services delivered can vary considerably. Creating a great patient experience requires a calm environment, access to relevant information and helpful services, which will contribute to delivering a reduction in levels of violence and aggression.

Designers can help improve the A&E experience at all steps of the process, from arrival to departure, because they approach challenges from the perspective of the people affected, with the aim of identifying solutions in collaboration with staff and patients in A&E.

This guide explores a journey through A&E from the patient's perspective and introduces design opportunities for improving the experience at each stage of the patient journey.

The A&E journey

Patients and other service users arriving at A&E will inevitably arrive with certain expectations. Their state of mind will largely depend on why they are there. Whatever the reason, patients are often faced with a series of obstacles before they are actually booked into the system – from parking to finding the department and queuing, typically with little or no human contact. If these first impressions are negative it can have a significant impact upon the service user's overall satisfaction with the service.

Overview of design opportunities

The pre-arrival and arrival experiences are two different stages in the service user's journey, and therefore represent distinct opportunities for improvement. A pre-arrival intervention would allow patients and other service users to self-triage and identify the appropriate care pathway. They may benefit from direction to alternative care pathways when A&E is not appropriate. When A&E is the right place, however, they need to be guided towards the correct destination, while actively managing their expectations of the service.

Upon arrival, the opportunities lie in reassuring, managing expectations and creating the best possible first impression. The ideal case scenario would be a personal greeting, delivered as early as possible within a welcoming space that creates a sense of mutual respect between the user and the service.

Some degree of waiting is to be expected with any visit to A&E. At what point, however, is the wait perceived to be too long, and how can this feeling be mitigated? Current waiting processes provide patients and other service users with very little information. This lack of knowledge causes anxiety – and can leave them feeling trapped and unable

to move for fear of losing their place in the queue. The inflexibility of the waiting process, combined with the lack of distraction, can make the wait feel longer than it actually is.

Furthermore, the waiting space may be a bright and uncomfortable area, with the patient and service user surrounded by potentially loud and aggressive people who are also awaiting treatment. Other factors, such as the ergonomics of the environment, the acoustics of the space and the layout of the furniture, can all contribute towards raising stress levels further.

The patient and service user can end up feeling ignored and neglected by the department, particularly during long and uninformed waits. By treating the wait as an experience in its own right and providing appropriate facilities for it, the patient and service user can feel cared for throughout their stay.

The waiting experience can be broken down into a number of themes, each of which presents opportunities for improvement:

— Environment

The ambient environment can give the patient and service user prompts as to how to behave and what to expect. In the same way that a library promotes a hushed environment, an appropriately designed A&E environment could promote a sense of calm and respect. To prevent violence and aggression in A&E you want visitors to feel safe and comfortable in the environment they are in.

The waiting space is shared by disparate groups and individuals, a proportion of whom may be intoxicated, antisocial, or in significant distress. As a result, a negative or positive interaction can quickly result in a similar atmosphere being spread throughout the space.

The quality of a built environment can dramatically influence perceptions of the services offered. The quality of the design, layout and materials used throughout the A&E department, in waiting areas as well as triage and treatment areas should inspire confidence, as well as providing the elements of a healing environment. A&E environments must appear clean and well maintained.

— Understanding

The patient and service user may lack an understanding of why they are waiting, and of how the waiting process and prioritisation of treatment is organised. Patients within A&E often regard a lack of relevant information as a key element of their frustrations.

To prevent violence and aggression in A&E you want to provide clear information so that understand and feel part of their treatment process and can see their progress through the system. A way of providing sufficient, yet not excessive, well targeted and well-delivered information to patients is essential.

Typically patients who are in pain and under stress will not easily absorb information; so although keeping patients informed is beneficial, too much information can become confusing. Information needs to be delivered in a way that can be easily understood and is accurate without being overly technical.

— Empowerment

Providing the right information at the right time can help to alleviate the stress of the unknown and manage patients' and service users' expectations of the A&E service. This may cover information about how the A&E department works, where the patient or service user is in the process, or even just how to find their way around the department. Empowering people with knowledge can also reduce the time spent by clinical staff responding to general queries.

The information provided to patients and other service users also needs to be conveyed in the right way, to ensure the right message is being given at all times. A clear, honest and humane tone of voice can help to create a rapport with the visitor, establish the right atmosphere in the environment, and engender a respectful culture within the A&E department (and ideally the hospital as a whole).

Any written information supplied should use language that can be understood by the layman and avoids as much as possible the use of medical jargon. It should, however, be kept in mind that signage in hospitals should be respected so if clinical terms (e.g. CDU) must be used, they should be followed by an explanation of its meaning.

01 Pre- arrival



If people think they need medical attention or advice, they have to decide whether they go to their GP, to A&E or to another healthcare service. Their decision about which service they should go to, and when, can be influenced by a number of factors, including how urgently they need attention, the nature of their problem or how close they are to the location of a certain healthcare provider. However, many people's default choice is to visit A&E and this can result in overcrowding and longer waiting times that can leave visitors feeling stressed, which may make them more likely to behave aggressively.

By working with designers, healthcare providers can share the information people need in order for them to decide upon the most appropriate healthcare service to access, and they can help manage expectations about a visit to A&E by giving details on waiting times and services provided.

Information design

NHS Direct has been designed to help people make an informed decision and then find out where they can find their nearest relevant healthcare provider. It acts as a fast-track system to direct minor-injuries patients to the most suitable treatment for them. It is delivered online, but crucially also has a telephone hotline which is open 24 hours a day, 365 days a year.

The Choose Well campaign aims to reduce the burden on all in-demand NHS services by helping people to associate the severity of their symptoms with a particular NHS service:

- A&E or 999 — for critical or life-threatening situations
- NHS Walk-in Centre — for treatment of minor illnesses or injuries, without an appointment
- GP — for medical advice, examinations and prescriptions for illnesses you just can't shake off
- Pharmacist — for advice on common winter illnesses, and the best medicines to treat them
- NHS Direct — for absolutely any health questions, around the clock, and to find local services
- Self-care — for treatment of minor winter illnesses, by combining a well-stocked medicine cabinet with plenty of rest

The United Lincolnshire Hospitals NHS Trust has recognised that visitors understanding of current demand levels in A&E will impact upon their overall satisfaction with the service. The Trust designed a new way for its A&E departments to communicate with patients before they arrive at A&E. Webcams positioned in the waiting areas stream real-time information onto the Trust website, so potential patients can check out how busy the departments are before deciding to visit.

Often, A&E is not the only place patients can receive the diagnosis, advice and treatment they require. NHS Direct can help visitors decide to use alternative treatment facilities that are available, but this advice is not necessarily tailored to local situations. So, NHS Bristol launched its own iPhone app to provide local patients with information on local health services and how they could access them. The app gives GPS directions and sends reminders about GP appointments in a bid to cut down on the number – and cost – of missed meetings. Find out more at managementinpractice.com

02 Outside the hospital



Before they even enter A&E, patients often encounter a series of negative and time consuming experiences. Where do they park their car? How long will they have to buy a parking ticket for? Where will they meet their family if they've been brought in by ambulance? Experiences like these can leave people frustrated and more likely to behave aggressively.

By working with designers, hospitals can deliver a service that extends beyond the A&E department's doors, that is convenient and easy to use and understand. By designing clear parking systems, developing a service that helps people with mobility problems get into A&E or signposting the route to A&E clearly, the space outside the hospital can make the entire hospital experience less frustrating, and therefore less likely to provoke violence or aggression.

Information design

Visitors arriving at the hospital for the first time may not know where to find the A&E department and since they are likely to be in a heightened state of stress and anxiety they may not be able to focus on signs directing them. Getting lost or having to ask for directions to the department increases a visitor's frustration and impatience.

At Birmingham Heartlands Hospital, the main entrance to A&E is visible as soon as the building can be seen and attention is drawn to it with clear, bold signage.

At Great Ormond Street Hospital, Landor Associates designed simple new systems as well as more structural changes to enhance access to different parts of the hospital.

Service design

“A pedestrian crossing, controlled where appropriate, should be used where a walkway crosses a road within the site. Clear signs are essential, advising drivers to give priority to those crossing.”¹

Visitors may arrive at A&E by ambulance, or using their own transport such as car or bike. If they cannot find a secure place to leave their vehicles they can get frustrated. The cost of parking near A&E can also be a frustration and while Trusts can consider providing discounted fees or alternative compensation for A&E visitors that need to use the car park they may also work with designers to develop new services that increase the value of the parking system.

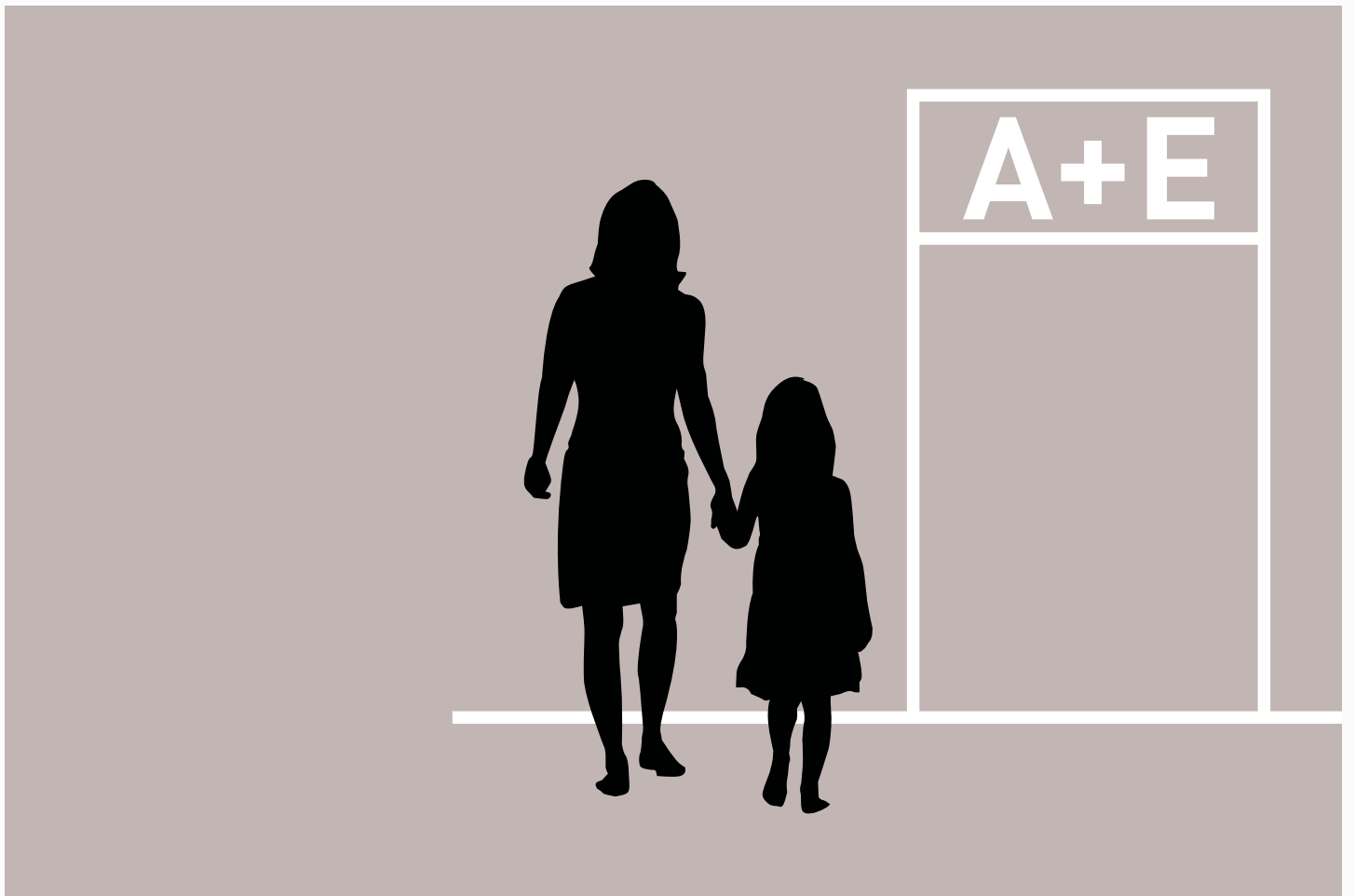
Just as airports allow a separate check-in or fast track system for first class customers, A&E systems could be designed for patients arriving by ambulance to be checked-in a different way.

Designers could help to redevelop space outside the A&E department to enable drop-off areas near the department entrance or they might suggest making porter chairs or wheelchairs, that are fitted with magnetic brakes or RFID tags to stop them being removed from hospital grounds, available at the car park or drop off areas.

“Whatever provision is made for smokers, there should be proper arrangements for dealing with smokers' litter. Special containers should be obvious but discreet in appearance, and, if possible, smoking areas should be deodorised. Containers should be cleared frequently, cleaned and maintained in good order. Cigarette ends, matches and other litter should be removed.”²

Designers can help hospitals to develop spaces and services that meet real customer needs. For instance, a proportion of visitors to A&E are expected to be smokers and the increased stress of visiting A&E is likely to increase their desire to smoke. Sheltered smoking areas, that are clearly signposted, should be made available to enable waiting people to relieve some stress.

03 Entrance area



When people need treatment at A&E they expect to be able to find the department and check-in quickly and easily. The entrance and reception areas, and the services they provide, set the tone for a patient's experience of their time in A&E and any further stay in hospital. People often arrive at A&E in pain or discomfort and they can expect to check in and receive treatment almost immediately. This isn't always realistic. Together, these factors can result in increased levels of stress which manifests in violent or aggressive behaviour.

By working with designers, A&E managers can create a welcoming and easy to use entrance space using furniture and interior design to deliver a positive first impression and set the tone for the rest of the A&E experience.

Environmental design

People produce a cognitive map of any space they enter into, and "The more we know about how humans ... can navigate, wayfind, sense, record and use spatial information, the more effective will be the building of future guidance systems, and the more natural it will be for human beings to understand and control those systems."³ Cognitive maps assist people needing to find their way in new, never visited spaces too, because they can apply previously learned information from a similar environment to the new context. Wayfinding and cognitive mapping are inseparable and most humans carry many cognitive maps in their head at any one time and by providing signs or environmental cues to help people find their way, and access useful information, hospitals can make it easier for people to access their service. This will mean they do not get frustrated at the start of their A&E experience.

*"It is important that the design of the department supports the natural wayfinding of people using the facility as staff, patients or visitors. This will help to ensure that people find their way to locations such as the reception and waiting areas, and also that they do not inadvertently access sensitive areas of the department such as paediatrics or resus."*⁴

Why is understanding the concept of a cognitive map and what goes into developing one important to designers of the built environment? Buildings with design features that help build a robust cognitive map for individuals can be highly important to wayfinding, particularly as it applies to remembering a space if the wayfinder revisits it. They can also assist in returning people to their point of origin.

Robust cognitive maps are important to people with intellectual and cognitive disabilities as well as to persons with poor memories or those who become easily confused.

In addition, building a robust cognitive map is critical to building evacuation in emergencies. When people are distraught, which is particularly true in emergency evacuations, they tend to remember distinct features in the built environment that can help them exit and provide excellent reference points for communicating with emergency first responders.

A&E departments have many different entry points. For example, entrances for ambulance arrivals and walk-in arrivals, as well as access from other areas within the hospital. To enable security to be enforced, it is recommended that there are as few entry points as possible.⁵

Designing the entrance to convey a positive impression that the A&E department will deliver both a quality service and a healthy environment can also relieve levels of stress and worry right from the beginning of the patient's experience of A&E. This can have a beneficial effect on levels of violence and aggression: "design and control of entrances can have a major impact on the patients' journey and running of the department."⁶

Clear natural sightlines from the reception desk across the entrance and waiting areas and towards clinical areas can help reception staff feel empowered to take control of these areas and their atmosphere so that people who seem agitated or distressed can be talked to before they become violent or aggressive. CCTV can be used to keep an eye on parts of the entrance and reception areas that staff can't see clearly and mirrors could reflect views of hidden parts back towards the waiting area so visitors can help keep an eye on what's happening.

*"[CCTV] can assist in identifying the condition (both in terms of injuries and behaviour) of the person wanting to gain access."*⁷

It has been demonstrated that when people can see their reflection they are more likely to conform to society and its behavioural norms. The use of strategically positioned mirrors could help contribute towards reducing violence and aggression when others around them are behaving calmly.

3. Reginald Golledge, Wayfinding behaviour: Cognitive mapping and other spatial processes, 1998

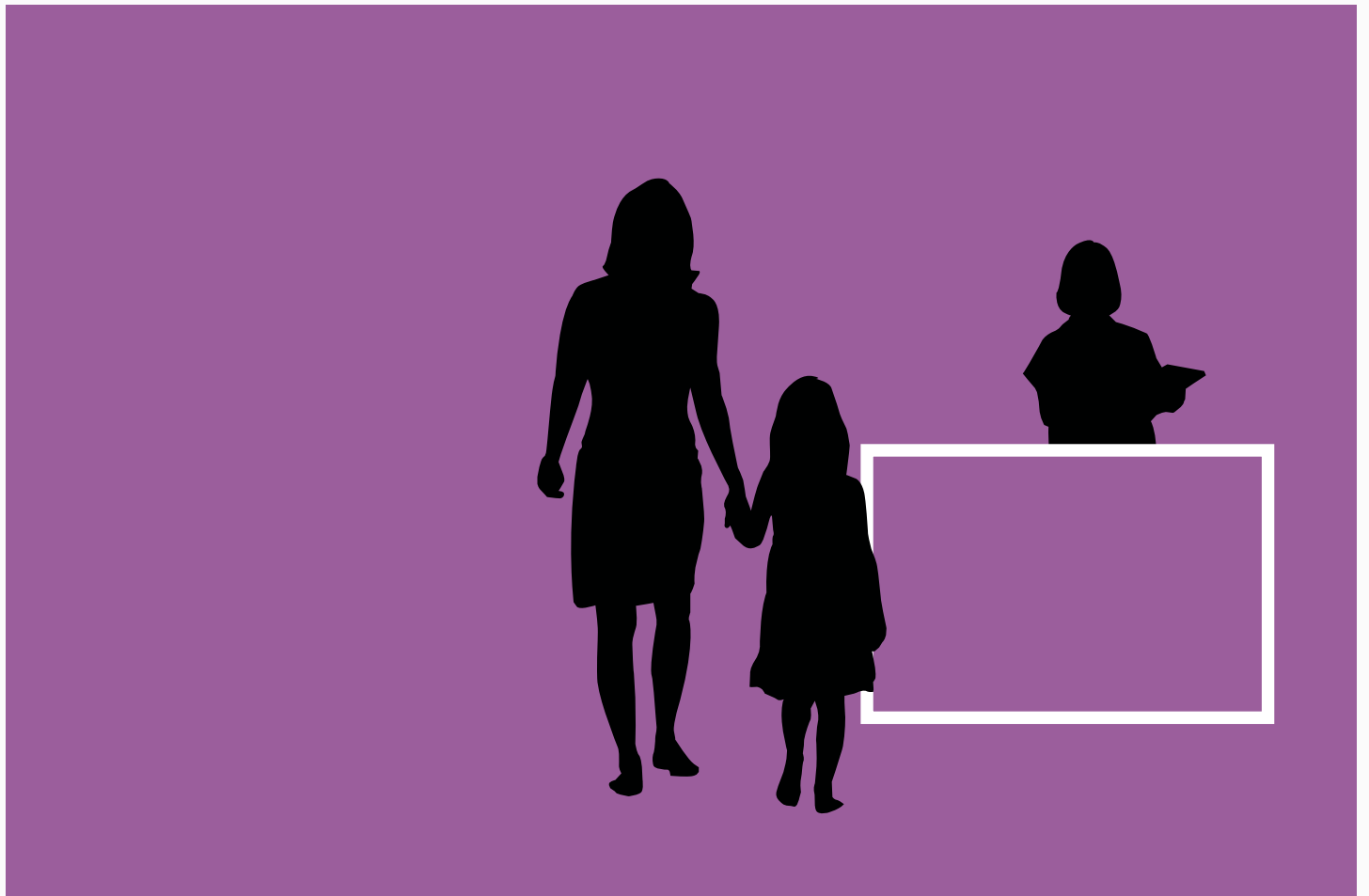
4. Intelligent Space Partnership, The impact of the built environment on care within Accident & Emergency Departments, 2002

5. NHS Executive, Effective management of security in A&E, 1997. Department of Health

6. Intelligent Space Partnership, The impact of the built environment on care within Accident & Emergency Departments, 2002

7. NHS Executive, Effective management of security in A&E, 1997. Department of Health

04 Reception space



Visitors arriving at A&E for the first time may not know what to do, or understand the process for receiving treatment. Their expectations may also be very different to the reality of what happens. This may cause frustration, particularly if visitors inadvertently miss a step in the process that causes a delay to their treatment.

A reception service that establishes rapport between staff and patients and provides many different sources of information can help to manage patient and visitor expectations of how their time in A&E will be spent. If people aren't confused they may be less likely to become violent or aggressive.

By working with designers, A&Es can provide clear and relevant information about the patient journey and manage the expectations of patients so that frustrations are prevented from occurring and escalating.

Environmental design

“Grilles and screens can cause greater stress in patients who are already feeling vulnerable... [The desk] can be a harsh, divisive and alienating barrier. Safety can be afforded to reception staff without putting up a screen.”⁸

Many A&E reception desks have installed screens to prevent visitors from attacking staff, but these can actually exacerbate feelings of stress or aggression in visitors as they are often a barrier to communication. While acoustic privacy at check-in is important to maintain, physical barriers to communication such as safety glass and grilles can make visitors frustrated and they can feel like they are not trusted to behave well.

At Birmingham Heartlands Hospital visitors, including those who have mobility impediments who may not physically be able to stand whilst checking-in, are provided with seats so that they are able to sit at eye level with the receptionist, thus establishing a culture of respect.

“Able, approachable and experienced staff located at the reception desk – rather than inside an office or behind glass – will be able to welcome, direct and give general information. For hesitant, anxious, vulnerable patients – some of whom may have difficulties with mobility, language, vision or hearing – this is the most important element of their arrival.”⁹

Lighting design

“The reception area should be comfortably warm, well lit and free from unwelcome smells. It may be very busy at times but should be sufficiently spacious never to be crowded or excessively noisy.”¹⁰

Lighting can impact on visitor behaviour by changing the ambience of a space. Bright lighting should be used at entrances. This not only draws attention to the entrance to help those trying to locate it, but also creates a bright and positive impression of the department. It also has the benefit of aiding CCTV imagery.

“Routes by which visitors enter and leave the department should be tightly controlled so that privacy and dignity of patients is not compromised and to ensure that visitors do not access sensitive areas.”¹¹

“Controlling doors and entrances to an A&E department can be an effective way of controlling many security threats. Lack of control of access can make units vulnerable to vandalism, theft and intruders.”¹²

Controlled access to sensitive parts of the A&E department can help reduce feelings of stress or worry for patients and for staff because they maintain each patient's privacy during diagnosis and treatment and they allow staff to feel secure that only people they have let in are in the treatment areas. However, controlled and private areas can lead to frustration among people waiting if they see other patients get checked-in and moved to treatment areas more quickly than them.

At Birmingham Heartlands Hospital the reception and the main seating areas are open to everyone, and staff guide visitors through secure doors to other areas of the department when necessary. A separate controlled entrance for ambulances allows patients arriving with serious injuries to be moved to the resuscitation bays without going past people in the waiting area, as seeing people arrive with serious conditions or injuries can be distressing.

Service design

“Staff have by far the most significant effect on patients' and visitors' experiences of hospitals. It is important that those staffing the entrance and reception area are professional, friendly and competent to carry out their tasks.”¹³

A visitor to A&E will encounter lots of different sorts of staff. They might be expecting clinicians to diagnose their problems or offer treatment as well as staff at reception to provide information. A personal greeting from a member of reception staff can help deliver useful information and direct visitors quickly to their right course of action.

8. Intelligent Space Partnership, The impact of the built environment on care within Accident & Emergency Departments, 2002
9. NHS Estates, Improving the patient experience: welcoming entrances and reception areas, 2004. Department of Health

10. NHS Estates, Improving the patient experience: welcoming entrances and reception areas, 2004. Department of Health
11. Intelligent Space Partnership, The impact of the built environment on care within Accident & Emergency Departments, 2002

12. NHS Executive, Effective management of security in A&E, 1997. Department of Health
13. NHS Estates, Improving the patient experience: welcoming entrances and reception areas, 2004. Department of Health

Visitors will also often see security staff who are on hand to intervene before any potentially violent situations get out of hand, but they should present themselves in a non-intimidating, helpful and friendly manner in order that their presence is not a cause for frustration in the first place. Security staff appointed to the A&E department could also carry out other tasks such as assisting visitors with wheelchairs or liaising with ambulance staff.

Staff too benefit from the presence and support of a security team. Panic buttons or other ways of instantly alerting and calling them to an incident, as well as physical barriers to stop some of the impact of a violent incident, are essential to design in to A&E departments.

“In emergencies reception staff should have immediate access to and support from security personnel.”¹⁴

“Panic buttons or other means of calling for assistance should be provided for the receptionist.”¹⁵

Digital design

The unpredictable nature of patient numbers through A&E means that queues can suddenly develop at unexpected times. Self check-in using a simple touch screen computer system is now a commonly encountered in our day to day lives. Self check-in booths allow extra capacity to be built into the system, so that those visitors who are physically and mentally able, can check in and relieve pressure on reception staff. This could also be used for entering basic patient information.

At a New Jersey hospital that asked patients to start completing their own records as part of the sign-in process, triage time decreased and between 10 to 15 minutes of time was saved per patient on overall flow.

Queue theory tells us that when people are ‘in-process’, queues feel shorter, compared to when they are not ‘in-process’. Therefore, using a ticketing system can help people feel like they are beginning the check-in process. It also allows them to take a seat and rest in a more comfortable way while they queue, which is a more compassionate way to let a person with an injury or illness wait.

The design and placement of self check-in or ticketing facilities needs particular attention: “care should be taken in using touch-screen or other interactive terminals, especially in existing facilities. The space required for the equipment and user is significant and so should not be located where it may obstruct or cause congestion.”¹⁶

14. NHS Estates, Improving the patient experience: welcoming 12 entrances and reception areas, 2004. Department of Health
15. NHS Executive, Effective management of security in A&E, 1997. Department of Health

16. NHS Estates, Improving the patient experience: welcoming entrances and reception areas, 2004. Department of Health

05 Waiting



An A&E department can often feel like a hostile and stressful environment. For patients, the time spent waiting to see a clinician can seem a disproportionately large part of the time spent in A&E, so the spaces where people wait and the information provided while they wait will determine a substantial part of their A&E experience.

Waiting spaces, whether they occupy central space near reception or sub-waiting areas near places like x-ray departments or paediatric treatment areas, will be used by patients and visitors at many different stages of the A&E process.

These spaces can be designed to work as a useful tool to reinforce a positive sense of progression through the treatment system. For example, people, particularly mental health users, are shown to be less likely to leave A&E without treatment if they are brought through to wait in a clinical space, as it is perceived as progress.

If only one waiting area is used by the department, it can be difficult for the visitor to know whether they have progressed at all. Zoning the waiting area into different waits can also aid understanding and the feeling of progression.

“A systematic review of violence in emergency departments demonstrated the association between increased violence against staff and longer waiting times.”¹⁷

Patients in A&E may be in pain and under stress, so waiting to be treated can be frustrating. Also, many visitors are aware that although no longer a regulation, many NHS Trusts still aim to treat people visiting A&E units within four hours. This puts stress on the department, as patient numbers steadily increase.

Designers can help A&E departments to shape the spaces and provide information to waiting people in order to professionalise the environment and increase perceived efficiency and quality of care. All waiting areas should be a planned and clearly identified space in which it feels like the visitor is being looked after and that the visitor can identify a purpose in being there.

Environmental design

Visitors can often feel neglected or forgotten while they wait to receive care, particularly if they are waiting for long periods and cannot always see a member of staff. This may cause them to feel anxious. By enabling visitors to be able to see staff, they know that they can be seen and consequently remembered, reinforcing the message of a contract of care.

Clear sightlines also allow staff to have surveillance of the waiting area, so they can help if any patient's condition deteriorates, if visitors are trying to access restricted areas or if their behaviour is disrupting others around them.

Patients often arrive with friends or family, so appropriate provision should be made for this in the seating area. Furniture should be arranged in relaxed informal groupings to support the waits of both individuals and groups, enabling appropriate levels of intimacy, interaction and support. The ergonomics of the furniture should also facilitate a range of ways to wait, and be flexible enough to provide comfort for those with different injuries.

In airports pedestrian flow analysis – the study of how people move around a space – informs the layout of seating. It can be carefully planned in order to prevent confrontational situations that could lead to violence or aggression. For example, avoid seats being placed directly opposite each other and locating seats immediately outside clinical rooms, or with a view in to triage to maintain the privacy and dignity of patients being treated. Chairs too can be designed to prevent them from being used as weapons, and for Job Centres, they are designed to prevent weapons being hidden in or around them.

It can be distressing for children to see adults in a very ill or intoxicated state and noisy agitated children can very quickly put those around them on edge. Parents may also react badly to drunk and abusive behaviour around their children. Creating a separate waiting space for young children helps to protect them and can prevent scenes of confrontation.

Lighting and sound design

Lighting levels and calm sounds can help to set the ambience of a space. While natural lighting should be used as much as possible, because it has been shown to promote feelings of wellbeing, it can be helpful to design a variety of lighting schemes for different spaces in the waiting area, so patients can choose where they feel most comfortable to wait.

A&E departments often have lots of hard reflective surfaces which cause sound to travel long distances and this can create a noisy environment. There is strong evidence that noise increases stress in adult patients, for example by quickening heart rates and increasing blood pressure. So installing high performance sound absorbing ceiling tiles and flooring can help reduce noise related stress.

17. Cooke, Matthew, et al., Reducing Attendances and Waits in Emergency Departments: A systematic review of present innovations, 2005. Warwick Medical School

Offering some form of positive distraction will help the wait to feel shorter and less frustrating. Time spent idle is perceived as longer than time spent occupied and entertainment in the form of music, radio or TV playing can help to pass the time. However, the wrong choice of sounds can increase agitation and no one choice of entertainment will suit the tastes of all waiting people. Free WiFi access can help people occupy themselves with mobile web devices.

At Maudsley Hospital an atmosphere of calm has been promoted through the design of the environment, in particular by installing artworks by mental health artists. Views of nature have been found to promote stress recovery, whether this is of real landscape views or through artwork, but abstract artwork should be avoided.

Service design

Visitors waiting for treatment will be in a continuous state of anxiety while waiting for their name to be called. This sense of anxiety will continue to grow as the unexpected wait seems to lengthen. Providing information on waiting times allows the visitor to relax, at least for that period of time, and for example, frees them up to go to the toilet without fear of missing their spot. It is recommended that waiting times are given in generalised terms, for example, it will be more than 30 minutes, or it will be more than two hours.

Dehydration can lead to headaches and irritability so providing free drinking water and a vending machine in the waiting area allows people to maintain physical comfort and a reasonable frame of mind. These should be positioned slightly away from the main seating area and waste bins (secured to the floor to prevent them being used as weapons) should also be provided.

If any cafes are available, these should also be clearly signposted, with tannoy announcements also being directed to them. Toilets should be provided in close proximity to the main seating area. Intercom links should be installed in the toilets so patients can hear if they are being called by staff.

Information design

Whilst every patient may have a different journey through A&E, it can be helpful to show how far they have progressed and how much further they have to go before finishing their treatment.

Information on waiting times is delivered digitally at Southampton General Hospital A&E department where software that ties in with the check-in system allows estimated waiting times to be delivered in real-time. This has the additional benefit of acting as a prompt for staff, who may have a different perception of current waiting times. Use of real time data is more reliable than staff perceptions of when an emergency department is becoming overcrowded.¹⁸

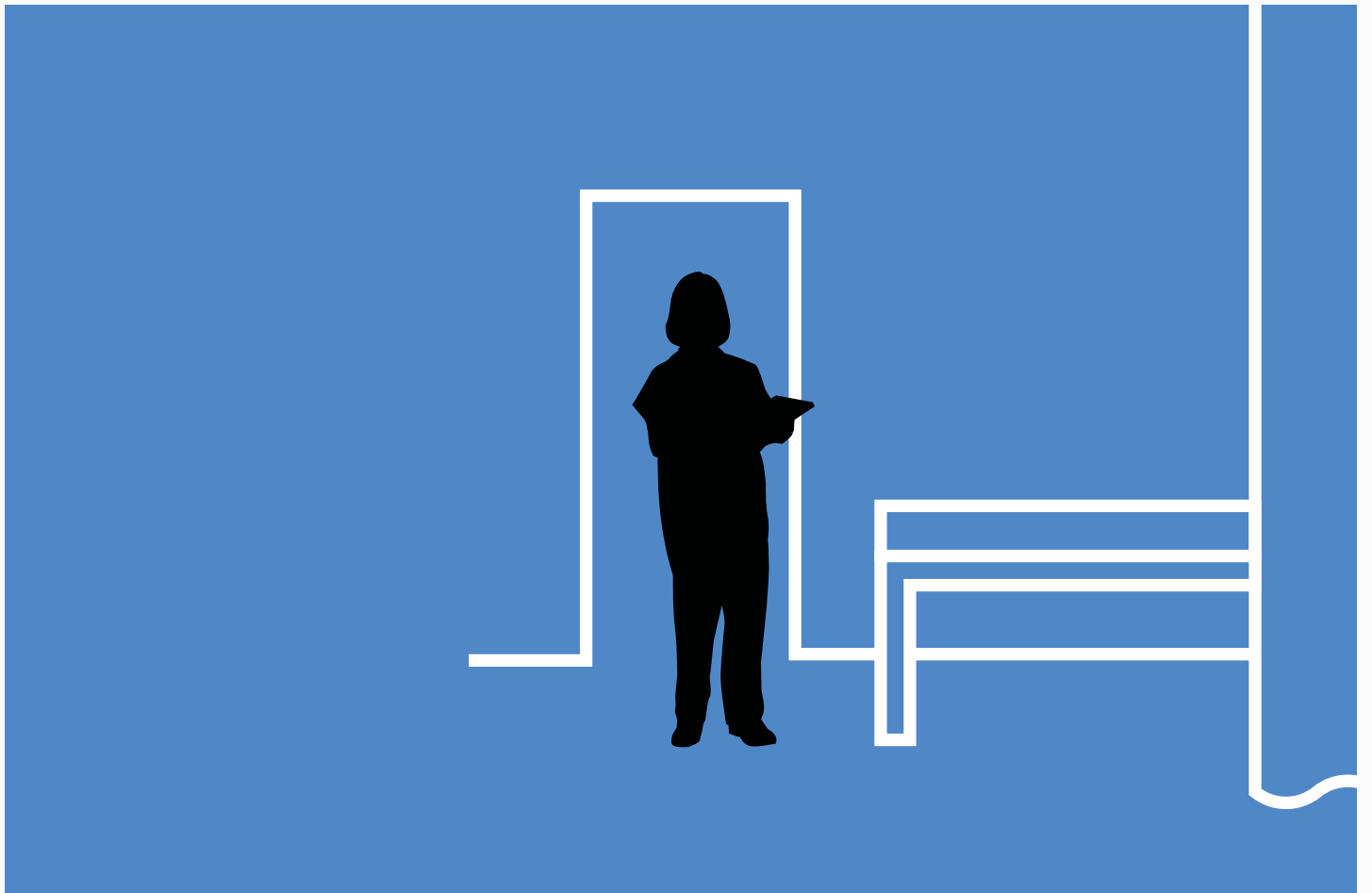
“The real issue in queue management is not only the actual amount of time that the customer waits in a queue, but also the customer’s perception of that wait and his or her associated level of satisfaction”.¹⁹

It has been demonstrated that perceived waiting time as opposed to actual time has an impact on visitors overall satisfaction with the service. Allowing people to wait elsewhere within the hospital (cafe, courtyards etc) can help the time to pass more quickly, as well as freeing up space in the waiting area. Visitors can then be notified that they will be seen soon via text message notification, or a vibration pager system, now commonly used by restaurants.

18. Reeder et al., 2003

19. Mark M. Davis, M.D., Heineke, J. Understanding the roles of the consumer and the operation for better queue management International Journal of Operations & Production Management 1994, Vol. 14 Issue 5, p21-34.

06 Triage



Typically, once people have checked-in they wait to be seen by a triage nurse, who will start their diagnosis and treatment process. However, patients will not necessarily understand what triage means, and consequently what the triage nurse will do. Staff should always give a personal introduction, explain their role and what they will do and explain the next steps in the patient care pathway.

Patients may be in a distressed and vulnerable state and can very easily feel threatened or agitated by the need to share personal information. This could lead to them responding aggressively. The triage spaces and the service and information delivered by staff should be designed to feel non-threatening and comfortable, whilst ensuring privacy and reassurance to patients.

Environmental design

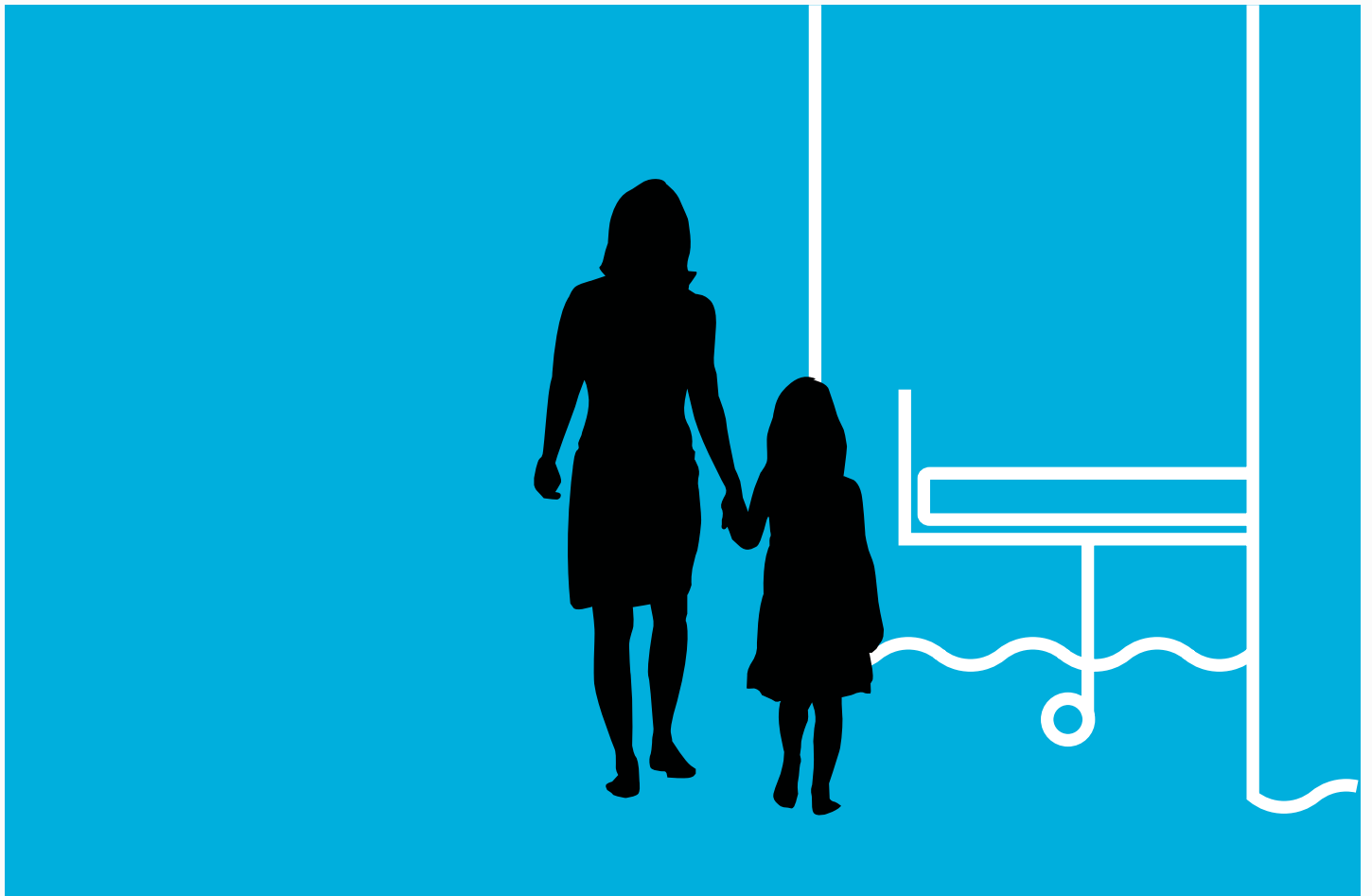
Patients have to give personal details at triage, and in addition, may be embarrassed to talk about their illness / injury. Triage rooms need to be located off the main waiting area, but they should be located away from vending machines and other areas of congregation. Rooms should provide full auditory and visual privacy for the patient.

Triage staff are the nearest members of staff to the waiting area. The triage nurse should be able to maintain a view of the waiting area so that they can intervene if a patient's condition rapidly deteriorates or a situation develops. Patient privacy needs to be balanced with safety of staff.

Staff can be vulnerable when treating patients in a closed room on their own. Triage rooms should have two exits to enable staff to escape any violent patients.

Members of staff can spend extended periods of time in hot and uncomfortable triage rooms. Adequate provisions should be made in terms of light, sound and air quality, to put the patient at ease, and to create a comfortable place of work for the triage nurse to ensure they deliver the best quality of care.

07 Patient bays



Patients will spend periods of time without staff in patient bays and they might become agitated while waiting for treatment, or if their condition changes. Care should be taken to ensure that no equipment is stored that could potentially be used as a weapon.

Design can help make patient bays a reassuring space where information is provided to help manage their expectations and make them feel safe and comfortable.

Environmental design

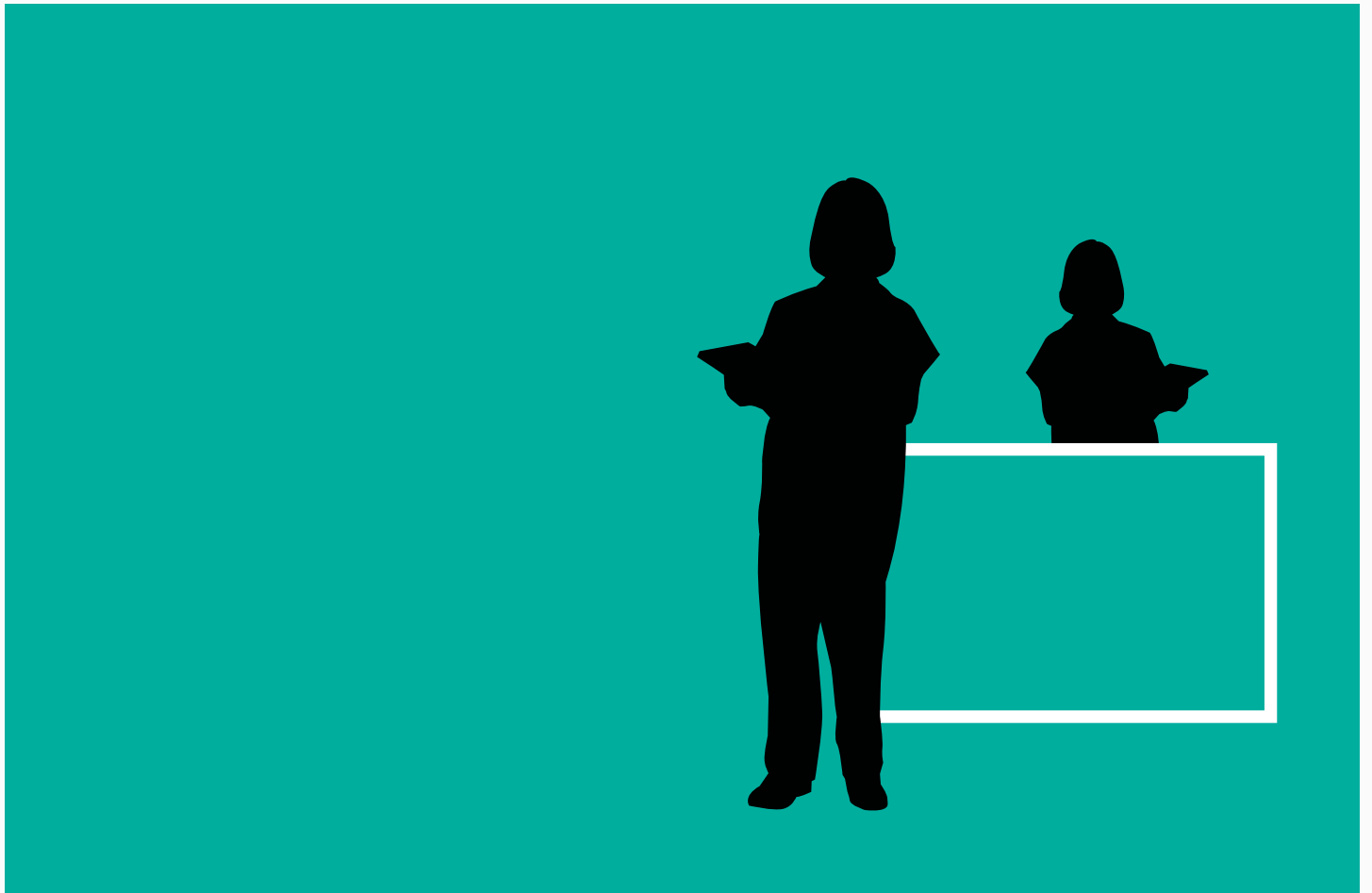
“Confidentiality has emerged as a priority issue in light of research showing that physicians and nurses very frequently breach patient confidentiality and privacy by talking in spaces where they are overheard by other patients or persons.”

A&E patients may have to repeatedly give personal details again when encountering new members of staff. Multi-bed rooms that are divided by curtains provide very little privacy, which can also inhibit how much information staff feel happy to discuss with the patient. Where possible, curtains should be replaced with solid walls in order to provide full auditory and visual privacy for the patient. Single bed patient rooms have been found to have fewer associated medical errors, better communication between staff and patients, as well as higher patient satisfaction rates with overall quality of care.

Some difficult and aggressive patients will have to be cared for, and may cause great disruption and stress to those around them in a multi-bed ward. A number of hard walled bays should be made available in the majors and observation units (where patients stay for a longer period of time) to accommodate these types of patients. These bays should also have two exits to enable staff to escape any violent behaviour.

To find out more about Reducing violence and aggression in A&E: Through a better design please visit www.designcouncil.org

08 Staff base



A&E staff work in a high pressure environment and need to have opportunities to relieve stress, reduce tension, and reinforce the sense that they are part of a supportive community. However, staff taking a few minutes to chat to each other in public areas of the department can be viewed as time wasting by patients.

Designers can help provide staff with areas where they can have private consultation, as well as engage in light hearted communication with colleagues to relieve stress and reduce tension.

Environmental design

Patients can be in cubicles for extended periods of time, and may become anxious if they can't see any members of staff. Positioning patient bays around a central nurse's station allows patients to see staff and feel reassured, as well as catch their eye if they need to.

A centrally located nurse station enables a 360 degree view of the patient bays by one staff member, important in a time of significant financial restrictions. It also enables them to respond quickly should any incidents arise. It has been shown that units laid out on a radial pattern require less walking and allow better visibility of the bed spaces.

Staff spend significant amounts of time walking between different areas of the department. Having decentralised supply stations can help to reduce the time spent walking, and free up time for patient care. Staff can spend considerable amounts of time at their work stations, inputting data into computer systems. Patients or visitors may need to approach the work station and should not feel intimidated to do so. The design of the station should be such that they are open enough to allow for patient/visitor and staff interactions and questions, whilst also maintaining a degree of privacy for staff.

Lighting and sound design

While patients may require low levels of lighting, bad lighting has been found to contribute to the occurrence of medication errors. Bright task lighting should be provided for nursing staff.

Noise sources are numerous in any hospital department and can cause all occupants to feel stressed. There is evidence that staff find higher noise levels stressful and that this is associated with reported emotional exhaustion or burnout.

To find out more about Reducing violence and aggression in A&E: Through a better experience please visit designcouncil.org.uk

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