



A Staff and Patient Environment Calibration Toolkit (ASPECT)

Instructions, scoring and guidance

DH INFORMATION READER BOX

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| Policy | Estates |
| HR / Workforce Management | Commissioning |
| Planning / Clinical | IM & T |
| | Finance |
| | Social Care / Partnership Working |
| Document Purpose | Best Practice Guidance |
| ROCR Ref: | Gateway Ref: 9276 |
| Title | A Staff and Patient Calibration Toolkit documentation |
| Author | DH Estates and Facilities |
| Publication Date | 10 Jan 2008 |
| Target Audience | PCT CEs, NHS Trust CEs, SHA CEs, Care Trust CEs, Foundation Trust CEs , Estates and Facilities Directors |
| Circulation List | |
| Description | ASPECT documentation is part of a benchmarking toolkit to assist trusts in measuring and managing the design quality of their healthcare facilities (new and existing). |
| Cross Ref | ASPECT Toolkit; AEDET/ ASPECT Evidence Layer |
| Superseded Docs | ASPECT documentation (NHS Estates site) |
| Action Required | N/A |
| Timing | N/A |
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| For Recipient's Use | |

ASPECT

A Staff and Patient Environment Calibration Tool (ASPECT) is based on a database of over 600 pieces of research. That research deals with the way the healthcare environment can impact on the levels of satisfaction shown by staff and patients and on the health outcomes of patients and the performance of staff. This research and the ASPECT toolkit itself are set out under 8 headings.

ASPECT can be used as a stand alone tool, or it can be used to support the Achieving Excellence Design Evaluation Toolkit (AEDET Evolution) to provide a more comprehensive evaluation of the design of healthcare environments. When used to support AEDET Evolution it enables the user to score the Staff and Patient Environment Heading of AEDET Evolution in a more detailed, accurate way.

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Overview

ASPECT is a tool for evaluating the quality of design of staff and patient environments in healthcare buildings. It delivers a profile that indicates the strengths and weaknesses of a design or an existing building. It is not meant to produce a simplistic single overall score. Because of the nature of design, which inevitably involves tradeoffs, it may not be possible to produce a building which would have the maximum score for all the sections. Indeed it may quite often be the case that a high score for one statement reflects a design which inevitably may be scored low on another statement. A single overall score would thus be misleading and uninformative.

ASPECT can either be used by individuals or in workshops by groups. In the latter case it is probably desirable that an experienced user of ASPECT should facilitate the group to avoid excessively lengthy debate.

ASPECT is a tool specifically directed towards achieving excellence in design rather than ensuring compliance with legislation, regulation and guidance. High scores in ASPECT do not therefore necessarily guarantee compliance.

WHO SHOULD USE ASPECT?

ASPECT is designed to be used by those involved in the commissioning, production and use of healthcare buildings. In particular public and private sector commissioning clients, developers, design teams, project managers, estates/facilities managers and design champions may find ASPECT helpful. User clients such as patient representatives and members of the general public should also be able to use ASPECT. However it may be more appropriate for them to do so in workshops working alongside other more experienced professionals.

WHEN SHOULD ASPECT BE USED?

- ASPECT can be used to evaluate existing buildings in order to compare them or understand their strengths and weaknesses.
- ASPECT can be used on the plans for new buildings in order to evaluate and compare designs.

- ASPECT can be used on 'imaginary' buildings in order to set standards for a brief.
- ASPECT can be used at various stages during the design of healthcare buildings. As the level of detail of the information available increases it may be possible to respond to more of the statements in ASPECT.

WHAT IS REQUIRED?

The minimum you need is the ASPECT **scoring layer**. The **guidance layer** may be helpful particularly if you are using ASPECT for the first time. The **evidence layer** in ASPECT is only necessary either for interest or if you wish to see exactly why a particular section and its constituent statements are included.

ASPECT may be a helpful tool to enable a group to come to a common understanding. If you are using ASPECT as a group it may be helpful to have a facilitator who can moderate the group discussions. There are two ways of doing this. You may try to arrive at a consensus for each statement score using discussion of the group as a whole. Alternatively you may prefer first to score all the statements individually and then come together as a group to resolve differences. In either case it is important that the facilitator should ensure that any representatives of the public or patients who may lack experience of technical knowledge are able to express their views and have them listened to.

Always make sure about the scale at which you are using ASPECT. For example this could be at a building scale, a department scale or a complete site scale. It is particularly important to agree this before you begin if you are working as a group. To help decide on the scale you need to look first at the level of detailed information available. If you decide to work at a smaller scale than a complete building then the NHS ADB (Activity Database) system may be helpful in deciding how to sub-divide the building. This database holds a master project which contains information on some 30 departments and 1,500 rooms (as room data sheets).

Instructions for use

ASPECT is a tool for evaluating the quality of design in healthcare buildings. It can be used on existing buildings and on the plans for new ones.

ASPECT has 3 layers:

- The **scoring layer** on which you score
- The **guidance layer** that gives more detailed help
- The **evidence layer** that points to available research evidence

DIFFERENT USES FOR ASPECT

The ASPECT may be used in various ways:

- In standalone form
- Evaluation workshops

Decide at what scale you are going to use ASPECT. This may depend upon the level of detailed information you have available. ASPECT can be used to score at the scale of buildings, parts of buildings or whole sites.

In standalone form

People and NHS organisations can use the toolkit as a stand alone for various purposes. In this form it not only provides an evaluation toolkit but also serves as a standing agenda which can inform many design based policies.

Evaluation workshops

This is perhaps the most common way of using the ASPECT.

Two ways of organising workshops are often used: the consensus reaching workshop and the individually scored and collated workshop. In both cases the evaluation will need to be carefully facilitated, preferably by an independent but knowledgeable facilitator.

It is important to make sure that a balanced group of stakeholders are involved in the workshop. Experience to date suggests that roughly between 8 and 16 people representing the following groups should be invited to take part in an ASPECT workshop:

- Strategic Health Authorities
- Primary Care Trusts
- NHS Trusts
- Patient groups
- NHS staff
- Trust strategic management board
- Community health groups
- Clinical user groups
- Local strategic partnerships
- Health action zones
- Hospital development and design teams
- Arts groups
- others

AT WHAT STAGES OF THE DESIGN DEVELOPMENT SHOULD THE ASPECT TOOLKIT BE USED?

The ASPECT Toolkit has been devised to enable NHS and PCT Trusts to measure and score a design. The toolkit should be used firstly as early as possible in the design process, then repeated as appropriate throughout the development of the design before being applied in the post-project evaluation. Thus it can not only be used to inform the briefing process but also to assess the degree of compliance with the original brief.

The criteria used in the toolkit may be adapted by PCT and NHS Trusts, and incorporated into their specifications of design vision, philosophy and quality, to form an important part of their briefing, whether using exchequer funding or a PFI contract.

The design evaluation process consists of the following stages:

- Set and agree the time table of milestones when design will need to be evaluated for the particular project (different procurement routes have issued their own guidance);

- Assemble the data and arrange the workshop date, venue, etc, for each milestone;
- Run an interactive multidisciplinary decisions analysis workshop (For smaller projects it may not be necessary to hold a formal workshop);
- Return the output data into the relevant criteria of the business case, report or notify others, as appropriate.

COMPARING AND SELECTING SCHEMES ON THE BASIS OF DESIGN EXCELLENCE

Where several design proposals are competing, the Trust can use their ASPECT design evaluations to make direct comparisons of the competing schemes. In a discussion of the relative merits of schemes or design options, the team can make informed comparisons which will enable them to confidently select the design which best meets their vision and requirements. The toolkit will also facilitate the identification of key issues or areas for further development by the designer, depending on the stage of procurement.

NHS Trusts and PCTs pursuing PFI schemes are strongly recommended to ensure that they have an audit trail that is fully integrated into the final selection processes that records the ASPECT design evaluations of all of the bids at the various stages.

Trusts should of course seek to achieve as high a score as possible, but at least a score 3, for each of the ten main criteria. Where scores fall below that level Trusts should clearly be actively seeking to work with their advisors to improve the design and raise the evaluation scores.

DESIGN EVALUATION WORKSHOPS

The purpose of running ASPECT design evaluation workshops is to enable multi-disciplinary teams, supported by their technical advisors, to have an opportunity to discuss the evaluation scores together.

Outputs from the Design Evaluation Workshop

The main output from the workshop should be a dashboard display which both contain and illustrate the numeric values of the decisions of the evaluation team.

Information required for an ASPECT evaluation workshop

ASPECT can be used at various stages in the design and use of a building. Thus there will be various levels of design information that may be available at the selected evaluation stage.

NB: It is not expected that design teams produce any information over and above that already in existence for an ASPECT evaluation.

Analysing and presenting the information to the workshop

At the main evaluation stages of a large project there will be technical reports, specifications etc., which will need to be analysed by the technical advisers. They will be seeking to test the design proposals against the output specifications set in the brief. It will therefore be necessary for the technical advisors to present the evaluation team with as much pre-analysed information as possible giving, them more time to make the key judgements during the workshop.

It is suggested that the following information is made available to the team evaluating a design. There will be a need for both written and graphical information.

Written information

- A brief introduction of the Trust, the site and the scheme should be provided.
- It may be appropriate to provide a 'History in Plans', demonstrating the original thinking, how decisions were proposed and ideas from the very initial stages to the most recent stages.
- Phasing of the scheme should be set out alongside a predicted or approximate time scale. It should include key milestone dates achieved, as well as any predicated milestone dates.
- A Scheme Overview including:
 - The size and nature of scheme [acute/DGH/mental health/ primary care]
 - Whether the project is a complete new build or a refurbishment.
 - The nature of the site and whether it is urban or a green-field site and a brief description of the architectural form of the scheme.
 - A description of the key service components and their inter-relationships.
 - The departmental relationship information may be specified using diagrams. The design response to the specifications of the Trust, the required capacity, and adaptability for future use.
- The Design Vision and Philosophy should be based on creating a facility that carefully balances a building that is a statement of civic pride against the need to create a welcoming environment that instils a sense of comfort and support. The expectation is that the scheme will provide a modern, quality, functional and therapeutic environment.

Graphical information

- It is recognised that the level, detail and quality of information will vary at various design stages, but it is important that the design team presents sufficient information for the evaluation to be made. The following list suggests the design information, which will be useful for a presentation at the start of an ASPECT workshop, in order to give a sufficient understanding of the scheme design.
- It is important that design team(s) provide clear, good quality information which can be displayed.

It is helpful to use an appropriately sized room which allows large size plans to be displayed on the walls or display boards, and where PowerPoint presentations can be made.

Where more than one design proposal is being evaluated, sufficient time for setting up and removing schemes should be allowed.

Summary list of suggested presentation information

- Site Plans
- Development Control Plans
- Site and Building Sections
- Existing & Proposed Floor Plans
- Elevations
- Exemplar Room Plans
- Internal and external elevations
- Hard and soft landscaping
- Perspectives of internal spaces / CAD fly-throughs
- Sample panels of internal finishes
- Loan examples of soft furnishings
- Extracts from manufacturers catalogues
- Photo display boards
- Lighting and/or other internal environmental analysis

This list is not in any way exhaustive and will frequently need to be augmented as circumstances dictate.

Scoring system

AEDET Evolution has 8 main sections. The sections summarise how well a healthcare building complies with best practice. The sections have several statements that taken together build up a score for that section.

HOW TO USE ASPECT

The scoring and guidance layers are available as a Microsoft Excel spreadsheet. The instructions below assume the spreadsheet is being used for the ASPECT design evaluation.

SCORING STATEMENTS

You should try to respond to every statement on the scoring layer. However it is not the scores of individual statements that matter so much as the score for each section overall. The statements are there primarily in order to break that section down into manageable and limited sets of issues that may be much easier to consider than simply trying to arrive directly at a score for the section overall.

Scoring

Work on the scoring layer responding to the statements by giving each a score on the 6 point scoring scale.

The guidance layer gives a more detailed explanation of the statements and help on the criteria for achieving good scores. The guidance layer also helps to interpret the statements in relation to specific building types such as for example primary care or mental health. The evidence layer summarises the research evidence that supports each section and, where possible, points to the primary published sources.

Once you have scored each statement in a section the tool will calculate an average score for the whole section. The tool will take into account any weighting you may have used. (See Weighting).

Guidance layer

You can view the guidance layer for any statement by using the expander in the margin to the left of the statement. Using the expander when the guidance is visible will hide the layer.

Weighting

On the scoring layer each statement may be given a weighting of High (2), Normal (1) or Zero (0). This can be used to determine the effect of the statement in arriving at an overall score for that section. By default, the statements have a weighting of Normal (1).

Alternatively in some cases a statement may have a greater than usual importance and may be given a weighting of 2 to double its effect in arriving at the score for the section.

You may decide for yourself when to use these weightings, perhaps to reflect the care model applying to the building under examination. The guidance layer also gives some hints as to circumstances or building types where you might consider using double weighting.

Using the 6 point scoring scale

The best score is 6 and the poorest score is 1. Make full use of all 6 points on the scale. Do not 'save' 1 for an impossibly bad scheme or 6 for a perfect scheme. A score of 6 should be used for the best it is reasonable to expect. Be realistic.

The 6 point scoring scale is used to express a level of agreement with the statement. In this case the scores should be used as follows:

- Virtually complete agreement (6)
- Strong agreement (5)
- Fair agreement (4)
- Little agreement (3)
- Hardly any agreement (2)
- Virtually no agreement (1)

Unable to score

You may find you are more confident about your scores for some sections than others. You may find some statements are difficult to respond to due either to lack of knowledge or a lack of available information. In these cases a score of 'unable to score' can be used.

Notes

A notes field is used to record optional additional comments regarding the weighting and scoring values for each statement. The note field should always be completed when a score of 'unable to score' is given.

MANUALLY SCORING OVERALL HEADINGS

The Excel spreadsheet version of the ASPECT toolkit calculates the section average scores automatically.

If you have completed paper-based scoring you may want to calculate the average score for all the statements under a section. The correct way to do this is as follows:

- Statements weighted Zero (0) are excluded from the calculations
- Statements weighted Normal (1) have their score added in once
- Statements weighted High (2) have their score added in twice

This gives a total score for the heading.

Next calculate the number of statements used. Add in 1 for every normally weighted statement and 2 for every double weighted statement. (Do not add anything for statements weighted 0).

Finally divide the total section score by this number of statements to give an average.

It is strongly recommended that this average number is not used mechanistically but as a guide to suggest the overall score you arrive at for the section using your judgement and local knowledge.

Scoring layer

Example score sheets, taken from the Microsoft Excel spreadsheet version, for the 8 sections in the ASPECT toolkit:

C1: Privacy, company and dignity

Section 1 deals with the way people in a healthcare building are able to control their privacy and their interaction with others. It focuses on the way people can best maintain their dignity while under conditions that necessarily may not be found in ordinary life.

| ID | Description | Weighting | Score | Notes |
|------|----------------------------------------------------------------------|----------------------|----------------------|----------------------|
| 1.01 | Patients can choose to have visual privacy | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 1.02 | Patients can have a private conversation | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 1.03 | Patients can be alone | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 1.04 | Patients have places where they can be with others | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 1.05 | Toilets/bathrooms are located logically, conveniently and discretely | <input type="text"/> | <input type="text"/> | <input type="text"/> |

C2: Views

Section 2 deals with the extent to which both staff and patients can see out of and around the building. It asks what they can see and relates this to their current activity and condition.

| ID | Description | Weighting | Score | Notes |
|------|---------------------------------------------------------|----------------------|----------------------|----------------------|
| 2.01 | Spaces where staff and patients spend time have windows | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 2.02 | Patients and staff can easily see the sky | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 2.03 | Patients and staff can easily see the ground | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 2.04 | The view outside is calming | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 2.05 | The view outside is interesting | <input type="text"/> | <input type="text"/> | <input type="text"/> |

C3: Nature and outdoors

Section 3 deals with the extent to which patients in particular have contact with the natural world. It asks whether they can see and access nature both around and inside the building.

| ID | Description | Weighting | Score | Notes |
|------|-----------------------------------------------------------------|----------------------|----------------------|----------------------|
| 3.01 | Patients can go outside | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 3.02 | Patients and staff have access to usable landscaped areas | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 3.03 | Patients and staff can easily see plants, vegetation and nature | <input type="text"/> | <input type="text"/> | <input type="text"/> |

C4: Comfort and control

Section 4 deals with the comfort levels of the staff and patients in healthcare buildings and the extent to which they can control those levels. Research shows that not only comfortable conditions but the ability to control levels of comfort for yourself may be very important in reducing stress. Allowing patients control over their environment is thus important and may also reduce demands on staff, particularly nurses.

| ID | Description | Weighting | Score | Notes |
|------|------------------------------------------------------------------------------------------------------------|----------------------|----------------------|----------------------|
| 4.01 | There is a variety of artificial lighting patterns appropriate for day and night and for summer and winter | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 4.02 | Patients and staff can easily control the artificial lighting | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 4.03 | Patients and staff can easily exclude sun light and day light | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 4.04 | Patients and staff can easily control the temperature | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 4.05 | Patients and staff can easily open windows/doors | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 4.06 | The design layout minimises unwanted noise in staff and patient areas | <input type="text"/> | <input type="text"/> | <input type="text"/> |

C5: Legibility of place

Section 5 deals with how understandable healthcare buildings are to the staff, patients and visitors who use them. Towns, areas, buildings, departments and rooms should have clear identities and be differentiated and have a hierarchy of structure. People generally like places that are not uniform and homogenous but have variety and variation of scale. Generally layouts should be clear and understandable so that way finding is easy and have to depend only minimally on signage or maps.

| ID | Description | Weighting | Score | Notes |
|------|-----------------------------------------------------------|----------------------|----------------------|----------------------|
| 5.01 | When you arrive at the building, the entrance is obvious | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 5.02 | It easy to understand the way the building is laid out | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 5.03 | There is a logical hierarchy of places in the building | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 5.04 | When you leave the building, the way out is obvious | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 5.05 | It is obvious where to go to find a member of staff | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 5.06 | Different parts of the building have different characters | <input type="text"/> | <input type="text"/> | <input type="text"/> |

C6: Interior appearance

Section 6 deals specifically with the interior of healthcare buildings and in particular what they look like. Although this section is probably one of the most subjective of all the sections in ASPECT never the less the statements included here relate to research evidence.

| ID | Description | Weighting | Score | Notes |
|------|-----------------------------------------------------------------|----------------------|----------------------|----------------------|
| 6.01 | Patients' spaces feel homely | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 6.02 | The interior feels light and airy | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 6.03 | The interior has a variety of colours, textures and views | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 6.04 | The interior looks clean, tidy and cared for | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 6.05 | The interior has provision for art, plants and flowers | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 6.06 | Ceilings are designed to look interesting | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 6.07 | Patients can have and display personal items in their own space | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 6.08 | Floors are covered with suitable material | <input type="text"/> | <input type="text"/> | <input type="text"/> |

C7: Facilities

Section 7 deals with a number of facilities that have been found to be important for the users of healthcare buildings particularly patients.

| ID | Description | Weighting | Score | Notes |
|------|----------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|----------------------|
| 7.01 | Bathrooms have seats, handrails, non-slip flooring, a shelf for toiletries and somewhere to hang clothes within easy reach | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 7.02 | Patients can have a choice of bath/shower and assisted/unassisted bathrooms | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 7.03 | There is a space where religious observances can take place | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 7.04 | There is a place where live performances can take place | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 7.05 | There are easy chairs, tables and desks in the patients' spaces | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 7.06 | Patients have facilities to make drinks | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 7.07 | There are easily accessible vending machines for snacks | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 7.08 | There are facilities for patients' relatives/friends to stay overnight | <input type="text"/> | <input type="text"/> | <input type="text"/> |

C8: Staff

Section 8 is concerned with those aspects of healthcare building provision that relate specifically to staff. To score highly under this section a healthcare building would make good provision for staff to lead their personal lives as well as perform their professional duties.

| ID | Description | Weighting | Score | Notes |
|------|--------------------------------------------------------------------------------------|----------------------|----------------------|----------------------|
| 8.01 | Staff have a convenient place to change and securely store belongings and clothes | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 8.02 | Staff have convenient places to concentrate on work without being on demand | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 8.03 | There are convenient places where staff can speedily get snacks and meals | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 8.04 | Staff can rest and relax in places segregated from patient and visitor areas | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 8.05 | All staff have easy and convenient access to IT | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 8.06 | Staff have convenient access to basic banking facilities and can shop for essentials | <input type="text"/> | <input type="text"/> | <input type="text"/> |

Guidance layer

C1: PRIVACY, COMPANY AND DIGNITY

Section 1 deals with the way people in a healthcare building are able to control their privacy and their interaction with others. It focuses on the way people can best maintain their dignity while under conditions that necessarily may not be found in ordinary life.

1.01 Patients can choose to have visual privacy

Either patients have their own individual room or can be screened off from others they share with or, if mobile, can easily find a private space. Privacy also means that activities can continue uninterrupted. For example the opening of a door should not expose the occupants of the room to passers-by outside. Although curtains can achieve some degree of visual privacy they may not necessarily guarantee dignity and almost certainly will not achieve acoustic privacy. Clearly individual rooms satisfy this feature whereas multiple bed bays do not naturally do so. In the case of for example four bed bays the arrangement of beds in space, distances between beds and the provision of screens can all help to offset to some extent the natural loss of privacy and dignity.

1.02 Patients can have a private conversation

Patients could talk to a relative, doctor, nurse or therapist confident of not being overheard. Speech privacy is important for all and particularly for patients' well-being.

1.03 Patients can be alone

Either patients have their own private room or, if mobile, can easily find a private space very near to their base location.

1.04 Patients have places where they can be with others

Consider using double weighting. Either patients are in shared accommodation or, if mobile, can easily find a place in which to socialise.

This item may be particularly important for places where patients may be for long periods especially if not in great pain or discomfort.

1.05 Toilets/bathrooms are located logically, conveniently and discretely

Toilets should be near, and it should be clear where they are but the actual door should not be in full view of many other people. The use of toilets and bathrooms should not be heard or cause smells. Being able to freshen up, be clean, shave and so on can be very important to people.

C2: VIEWS

Section 2 deals with the extent to which both staff and patients can see out of and around the building. It asks what they can see and relates this to their current activity and condition.

2.01 Spaces where staff and patients spend time have windows

Consider using double weighting. While it is pretty obvious that patients' spaces should have windows and natural light, this is not always observed so well for staff. This factor therefore may be of particular importance for spaces where staff work for long periods. This would thus apply even more strongly to staff who have a job that does not normally require them to move around a great deal.

Working for any length of time or staying in rooms without windows can have significant adverse effects on people.

2.02 Patients and staff can easily see the sky

Being able to see the sky is reported as important. A view only of the ground or even worse only of walls especially for any length of time can have a depressing effect. The height of the head of the window may be very important here especially if patients or staff are normally some distance back from the window. If looking at drawings it is probably necessary to see sections or perspectives.

2.03 Patients and staff can easily see the ground

Many people report considerable unease if they have to spend lengthy periods unable to see the ground. The height of the sill of the window may be very important here especially if patients or staff are normally some distance back from the window. If looking at drawings it is probably necessary to see sections or perspectives.

2.04 The view outside is calming

Consider using double weighting. This item is particularly important for places where patients may be for short periods especially when waiting for consultation or treatment.

Natural scenes are known to be very calming. Examples include trees, flowers, green areas, water, fields open landscape, or quiet well designed courtyards. However a mixture of hard and soft landscape or carefully chosen sculptures can also be calming.

2.05 The view outside is interesting

Consider using double weighting. This item is particularly important for places where patients may be for long periods especially if not in great pain or discomfort, and especially for patients who are not mobile. This item may also be particularly important for mental health buildings.

In general interesting views have some degree of change and unpredictability. Interesting views include those where there is movement either of natural or man-made features, and art such as painting or sculpture. It is unlikely that this can be achieved in courtyards although moving sculptures could help to make a courtyard more interesting. Scenes of everyday life going on which may provoke conversations between patients about that life and reconnect them with it are particularly desirable, especially in mental health buildings. It is also desirable that patients can observe life going on within the hospital enabling them to take an interest in others and not feel isolated. In particular this feature may enable patients to feel more secure in the knowledge that other people are around should they need them, as well as providing some interest and distraction.

C3: NATURE AND OUTDOORS

Section 3 deals with the extent to which patients in particular have contact with the natural world. It asks whether they can see and access nature both around and inside the building.

3.01 Patients can go outside

Consider using double weighting. This item is particularly important for places where patients may be for long periods especially if not in great pain or discomfort, and for mental health buildings. Much research shows the importance of contact with the outdoors and nature to most people.

The ability to breath fresh air is thought be many people to be therapeutic in itself. Part of the feeling of fresh air seems to be a degree of movement and breeze. This may be very important not only in itself but in giving patients a feeling of being in contact with a normal outside world. This is obviously most satisfactorily

achieved by having direct access to outdoors. This could be in the open landscape, in a courtyard or even on a balcony.

3.02 Patients and staff have access to usable landscaped areas

As for 3.01 but including areas where some activity is possible and including places to sit comfortably in quiet but with the possibility of watching life going on or looking at nature. To facilitate this you would expect to find well designed external furniture suitably located.

3.03 Patients and staff can easily see plants, vegetation and nature

Consider using double weighting. This item is particularly important for patients experiencing stress or anxiety and to counterbalance the effects of high technology areas.

This may be in the form of open landscape, courtyards or even internal planting. Well maintained landscape incorporating some built features may be more reassuring to many people than wild or densely wooded areas.

C4: COMFORT AND CONTROL

Section 4 deals with the comfort levels of the staff and patients in healthcare buildings and the extent to which they can control those levels. Research shows that not only comfortable conditions but the ability to control levels of comfort for yourself may be very important in reducing stress. Allowing patients control over their environment is thus important and may also reduce demands on staff, particularly nurses.

4.01 There is a variety of artificial lighting patterns appropriate for day and night and for summer and winter

Patients and staff should be able to arrange for a range of lighting effects to avoid glare, offer bright light for reading, dim lights for night time rest and so on.

Consider indirect lighting and non-institutional lighting which might be recessed or gentle and localised rather than high even levels of fluorescent lighting.

Studies show that when daylight is available, many building occupants like to reduce artificial lighting to allow the daylight to take effect. During the day and the seasons natural light levels vary enormously and people generally like to be aware of this.

4.02 Patients and staff can easily control the artificial lighting

Consider using double weighting. Changes in lighting patterns may be a relatively good and cheap way of providing variety for people who are immobile. It is very important that lighting patterns can be controlled

on a room by room basis and not just for a complete building/ward/department.

It is highly desirable that bedridden patients can switch/dim lights from their beds.

4.03 Patients and staff can easily exclude sun light and day light

Consider using double weighting. Blinds may be useful to avoid direct sunlight particularly on the faces of immobile patients. Considerations include daylight exclusion to allow for uninterrupted early morning sleep in summer. Large clear areas of glazing allow adequate light in winter months, but may also give rise to excessive solar gain and to dazzling direct sun light. It is desirable that bedridden patients can control blinds, shades and curtains from their beds. Changes in external lighting can be sudden and frequent. Rapid and easy response mechanisms are highly desirable.

4.04 Patients and staff can easily control the temperature

It is desirable that local temperature control is available and effective with a reasonably short time. It may well be that individual control of temperature is desirable not only for direct comfort but also for the feeling of being in control.

4.05 Patients and staff can easily open windows/doors

Window catches and controls should be easily reachable. It is desirable that patients should be able to do this for themselves. This may also relate to 3.01 and be especially important if patients are unable to go outside.

4.06 The design layout minimises unwanted noise in staff and patient areas

Consider using double weighting. This item is particularly important where patients are sleeping overnight.

Research has shown that stress and heart rate are linked to the levels of ambient noise in healthcare environments. These effects are seen in both staff and patients.

Considerations include the minimising of noise sources within the building such as equipment and the insulation of internal patient staff working areas from any noise, the insulation of the building cladding from any noise sources outside the building, and the organisation of the building to keep areas where patients might sleep or staff might need to concentrate or relax away from noise sources. At night lower levels of sounds may be disturbing than during the day. For example patients have complained about overhearing nurses chatting at night time shift hand over times.

C5: LEGIBILITY OF PLACE

Section 5 deals with how understandable healthcare buildings are to the staff, patients and visitors who use them. Towns, areas, buildings, departments and rooms should have clear identities and be differentiated and have a hierarchy of structure. People generally like places that are not uniform and homogenous but have variety and variation of scale. Generally layouts should be clear and understandable so that way finding is easy and have to depend only minimally on signage or maps.

5.01 When you arrive at the building, the entrance is obvious

The site as a whole should not introduce further stress by being ambiguous about where the entrance is. Preferably multiple entrances should be avoided but where this is either necessary or deemed desirable they should be clearly located, made architecturally apparent and signposted. The whole shape and form of the building should indicate where entrances are and they should be logically positioned in relation to the points of arrival onto the site.

5.02 It easy to understand the way the building is laid out

In essence it should be possible to easily establish a 'mental map' of the building. Lengthy internal circulation should be avoided as should multiple and potentially similar courtyards. Views out to external 'visual anchors' are helpful as are 'landmark' internal features such as sculptures, paintings and so on.

5.03 There is a logical hierarchy of places in the building

The scale of space should reduce in a logic which reflects the organisation of the building. It is easier to understand buildings that have major spaces that are reflected by a change in the section such as having higher ceilings.

Those places that for example are not for use by the general public, or patients should be entered in such a way as to make this clear. The distinction between public and private can be indicated through changes in ceiling heights and also by using different materials. Generally public spaces might have a larger scale than private spaces.

5.04 When you leave the building, the way out is obvious

The route back to the entrance may not be the same (in reverse) as the route taken in so it should be obvious where exits are. A good test is to be able to tell when leaving a particular room if it is obvious for some reason whether the exit is to the left or the right.

5.05 It is obvious where to go to find a member of staff

Nursing stations on wards should be located at a point of maximum visibility not only for nurses to have the optimal view of the ward but also so that patients can easily see where a nurse might be. Similarly reception points should be obvious and visible at entrances or waiting areas. Routes from waiting areas to consulting rooms should be obvious and unambiguous.

5.06 Different parts of the building have different characters

An excellent way of helping to increase the legibility of places is to give different kinds of places different characters reflecting their functions. However where there are also significant numbers of similar places (such as wards) then less significant changes of character perhaps through colour, texture or material should enable people to feel located meaningfully.

C6: INTERIOR APPEARANCE

Section 6 deals specifically with the interior of healthcare buildings and in particular what they look like. Although this Headings is probably one of the most subjective of all the Headings in ASPCET never the less the statements included here relate to research evidence.

6.01 Patients' spaces feel homely

Consider using double weighting. This is of particular importance in places where patients may stay for a long time.

Patients express many opinions about the character of their preferred interior design and clearly this is very personal and variable. However there is general consensus that they would like to see hospitals as being homely. This is probably about scale and about textures and materials as much as anything else.

6.02 The interior feels light and airy

Again patients show general consensus, as do staff, about wanting light and airy hospitals. This can be achieved both by the use of materials and colour and by natural light and artificial light. The feeling can also be enhanced by the use, at least in part, of higher than normal ceilings especially when in combination with high level glazing.

6.03 The interior has a variety of colours, textures and views

Variety is important but a predominance of red based colours tends to create active and high anxiety feelings whereas the cooler colours such as green have the opposite effect. Dark colours however should be generally avoided except in small quantities (see 6.02). Clearly different kinds of colour schemes will be appropriate in different types of buildings. In particular

it may generally be the case that basic and colourful schemes might be used in children's accommodation and calmer cooler colours in mental health buildings and so on. Colour may also be used to create the differentiation dealt with in 5.06.

6.04 The interior looks clean, tidy and cared for

Cleanliness has a symbolic value as opposed to the more obvious concern for hygiene. Patients and particularly visiting friends and relatives are upset by places that appear dirty whether or not they actually are. Having surfaces that look as if they are clean is important as well as the actual ease of cleaning them. Places that appear uncared for communicate a possible lack of care for the occupants. Ensuring that there is adequate storage may help significantly to avoid clutter and untidiness. Having clearly designed places for notices to avoid them spreading over surfaces untidily is a further consideration. Designing to avoid the degradation of the building with time and use is also important. For example where trolleys and wheelchairs may be used then consideration should be given to providing buffers and guards to avoid damage to walls and doors.

6.05 The interior has provision for art, plants and flowers

There is much evidence to suggest the art can be of great value in healthcare environments. Provision in the design for art to be incorporated is highly desirable. In addition to simply hanging paintings on walls, art should be integrated into the design where possible. This may include sculpture placed externally as well as internally. The choice of art is also extremely important. Research suggests that fairly conventional representational art of subjects that are reassuring is most helpful.

6.06 Ceilings are designed to look interesting

Consider using double weighting. This may be of particular importance where patients are likely to spend lengthy periods in bed or be on trolleys or using medical equipment. Obviously the ceiling is very apparent and visible in such situations. Considerations include the minimising of services such as wiring, ducting and so on. In particularly stressful circumstances patterns or pictures may be used. Busy staff and visitors may not notice the ceiling surfaces but patients may spend more time looking up at ceilings. Views of nature on ceilings where patients are undergoing some treatment have been found to be reassuring and reduce stress.

In considering new designs, It may be important to see drawings that show ceiling surfaces.

6.07 Patients can have and display personal items in their own space

Consider using double weighting. This is of particular importance in places where patients might stay for a long time, and in children's care.

The ability to have your own belongings close at hand making a link with normal everyday life should be considered as should the display of pictures. Sufficient storage to enable patients to be able to have their belongings around them but not clutter up space is important.

6.08 Floors are covered with suitable material

Consider using double weighting. This may be of particular importance to older people.

Considerations include the visual appearance of being both homely and yet clean. However floor finishes should not give rise to visual uncertainty and changes in floor level and material can confuse those with sight impairment and those who are infirm or unstable in walking.

C7: FACILITIES

Section 7 deals with a number of facilities that have been found to be important for the users of healthcare buildings particularly patients.

7.01 Bathrooms are provided with seats, handrails, non-slip flooring, a shelf for toiletries and somewhere to hang clothes within easy reach.

The bathroom and toilet area is one of the most commented on by patients in general research. The frustration caused by effectively being disabled through bad design clearly contributes a significant amount of bad feeling. On the other hand being able to care for yourself and perform normal cleaning and grooming can be very helpful and reassuring.

7.02 Patients can have a choice of bath/shower and assisted/unassisted bathrooms

As with 7.01 enabling patients to have a choice either through personal preference or because of circumstances may enable them to feel better about themselves without loss of dignity. However it is recognised that there may be many circumstances where, for reasons to do with the patients' condition, choice is not appropriate.

7.03 There is a space where religious observances can take place

This is of variable importance to people, but for some can be extremely important. This may also be important to visitors as well as patients especially when those they

care for may be in hospital for lengthy periods or are very ill.

7.04 There is a place where live performances can take place

Consider using double weighting. This may be of particular importance where patients are likely to spend lengthy periods in hospital. The value of live performances seems to have several benefits. There is the obvious distraction from pain, discomfort and worry. There is the possible social value of meeting and mixing with others attending and there is the sense of normal life carrying on. Consideration should be given where possible to make space available for such events.

7.05 There are easy chairs, tables and desks in the patients' spaces

Again enabling as far as possible ordinary life to go on and a variety of activities to take place as very desirable. Where possible seating should be capable of being arranged to enable family and friends to be comfortable and sociable.

7.06 Patients have facilities to make drinks

People do not always want to go to public places for refreshment. Provision similar to that found in good hotels is desirable.

7.07 There are easily accessible vending machines for snacks

This is an important consideration for staff, patients and visitors.

7.08 There are facilities for patients' relatives or friends to stay overnight

Consider using double weighting. This may be of particular importance where patients are likely to spend lengthy periods in hospital and where children are involved. There should be adequate provision. There should be enough space including storage for relatives' belongings especially if they may be staying for lengthy periods. This provision should be as close to the patient as possible. Ideally it should be in the same room unless inappropriate for medical reasons. Evidence suggests that where this is provided there are many benefits including reductions in nurse call button activity, reductions in patient falls and so on.

C8: STAFF

Section 8 is concerned with those aspects of healthcare building provision that relate specifically to staff. To score highly under this Heading a healthcare building would make good provision for staff to lead their personal lives as well as perform their professional duties.

8.01 Staff have a convenient place to change and securely store belongings and clothes

Many staff have to wear uniforms or special work clothes and find it difficult to travel to work, especially using public transport, wearing these clothes. Staff are often concerned about the security of their belongings especially if their work means they move around a great deal and leave valued belongings behind. This of course includes cars or other transport.

8.02 Staff have convenient places to concentrate on work without being on demand

As with many building types, staff often need a 'back of house' area where they can get on with some work that requires concentration without being on display and in demand. This might apply for example to nurses on wards or therapists making some case notes. It should also be possible to have confidential staff conversations.

8.03 There are convenient places where staff can speedily get snacks and meals

Staff may have short break periods during their working day. Being able to get to a place where they can get refreshment or meals quickly and easily is very important. Equally such places need to be able to serve staff without extensive queuing.

8.04 Staff can rest and relax in places segregated from patient and visitor areas

Being able to meet and chat with colleagues during breaks and meal times is reported as being very important. Knowing that you can chat with colleagues about cases and problems without risk of being overheard by patients or visitors is rated as highly desirable by staff. Having places that increase the likelihood that you will meet busy colleagues performing similar duties is also thought to be highly desirable.

8.05 All staff have easy and convenient access to IT

This consideration may be particularly important for staff who do not work mainly at a base point but move around a great deal. Increasingly organisations rely on IT for communication and such staff can be seriously disconnected from others unless they have ready access to IT.

8.06 Staff have convenient access to basic banking facilities and can shop for essentials

There are many facilities that might be included for staff at their places of work ranging right up to gymnasiums and swimming pools. There are varying opinions about how desirable such facilities are. However there is general consensus amongst healthcare workers who often lead very busy lives that it is essential to be able to obtain cash, pay bills and get daily essentials without having to travel.

Evidence layer

The evidence layer is currently available for download from the Department of Health website at:

www.dh.gov.uk