

G2	Standard	A&E moving and handling (M&H)
Systems are in place for the safer handling of patients and inanimate loads in A & E in all situations that are reasonably foreseeable.		
Justification		
Rationale		
Safer handling is as important as rapid treatment and both must be provided. Patients must have a brief mobility/ dependency assessment, as part of their admission process, followed by a more in depth assessment if required when their condition allows.		
Authorising Evidence		
HSWA (1974); MHSWR (2000); MHOR (2004); LOLER (1998); PUWER (1998)		
Links to other published standards & guidance		
DOH (2010); EFA/2010/008; Driscoll et al (2000); HSC (1998); HSE (2007) SIM 07/2007/06; MHRA (1999) MDA HN 9711; MHRA (2001) DB 2001(04); MHRA (2006) DB 2006(06); MHRA (2007) MDA/2007/009; MHRA (2008) 007 MHRA (2010) MDA/2010/002; NHS Scotland (2000); NICE (2003); NICE (2005) CG25; NICE (2005) CG29; NICE (2007); NPSA (2007); NPSA (2008); NPSA (2010); NPSA (2011); Ruzsala et al (2010)		
Cross reference to other standards in this document		
A11, 13-15; B1-13; C1,4,6-9,11-14; D1-6, 8-10,11-16; F1-7; G1,3,5,8-11,14-16,18-20,22-26,28,29,32-34,36-38,40; H; I; K2; L6-11		
Appendices		
1, 9-11, 14, 17, 18, 19, 21, 25		
Verification Evidence		
- requirements for compliance to achieve and maintain this standard		
<ul style="list-style-type: none"> • An agreed approach, informed by evidence-based best practice, documented in the M&H policy, disseminated to all staff and embedded within A&E • Risk assessments (for M&H) that are 'suitable and sufficient', robust and balanced • Safe systems of work and standard operating procedures • Individual person assessments where necessary – readily accessible and regularly reviewed • Ergonomics is integral • Information and communication systems – including documentation • Competent, healthy staff, in sufficient numbers • Training (theoretical and practical) and supervision • Link workers are appointed, supported and active • An environment conducive to good care (space, layout, etc.) • Handling and other equipment that is suitable (fit for purpose) and readily available • Investigation of and learning from adverse events, using root cause analysis to locate the cause and prevent a recurrence SFAIRP • Monitoring, audit and review of the verification evidence • Points learnt from audit, and accident/ incident investigations and reports are disseminated and discussed with staff, with subsequent learning • Reporting of the status (level of compliance) to the organisation • Action plans to correct any lack of compliance • The culture is one of learning rather than 'blame and shame' • Staff work within protocols and record as necessary 		

G2 Protocol - A&E (M&H)

Author: Eila Mohey

Reviewer: Georgina McGee

1. Introduction and background

The role of major accident and emergency (A&E) departments is to assess and treat patients who have serious and unforeseen injuries and illnesses. In reality, many trivial issues are also seen and even someone with a cut finger can have serious mobility issues. These are consultant led units, open 24 hours a day, 365 days a year with full resuscitation facilities available.

According to the Hospital Episode Statistics (HES) website (2011), 15.6 million people attended an A&E department in England between April 2009 and March 2010 and 3.4 million (22%) resulted in admission to a hospital for inpatient treatment. But, HES admits that this data is incomplete as only 172 providers submitted their attendance figures and 263 providers submitted data via QMAE (Quarterly Monitoring of Accident and Emergency) reporting 20.5 million attendance.

2. Management, organisation, supervision and support

The management of an A&E Department is provided by a Business Manager, Nurse Manager/ Matron and a Senior A&E Consultant.

Overall, in charge in each area (e.g. minor injuries, trolley area, resuscitation, minor operations and paediatrics) is a senior member of staff to supervise and support more junior members in each 'shift'.

Patients are triaged by a competent member of staff as soon as possible, with urgent cases seen first.

To comply with tissue viability requirements, patients unable to move by themselves are repositioned at frequent intervals (NICE, 2005) - every 2-3 hours (Huntleigh Healthcare, 2005).

Severely ill patients need constant supervision.

As A&E covers the entire age range from birth to death, management must ensure that appropriate sizes of equipment including moving and handling equipment for all age ranges are available.

3. Staffing levels

Staffing levels vary depending on the size of the department, the number of patients and the type of emergencies seen in the unit, for example units that take major road traffic injuries need extra staff. A&E workload is unexpected, but generic risk assessments identify the minimum number of staff required for different tasks. 2 staff should always work together when handling patients they are not familiar with. Depending on a patient's condition/ size more staff may be needed.

4. Staffing competencies (after Benner, as cited in Ruzala et al, 2010)

4.1 Novice: New students, health care assistants or porters, and qualified staff with little or no experience of working in A&E settings.

4.2 Advanced beginner: Staff with some prior A&E work experience. These could be some students and new staff to the unit.

4.3 Competent: Staff who have worked in the A&E setting, who have been supervised and assessed as competent and who provide supervision to other staff.

4.4 Proficient: Moving and Handling link workers/ key workers/ champions who have received additional information, training, supervision and assessment.

5. Environment

Resuscitation areas have a lot of 'high tech' equipment for very ill patients. In modern A&E units, the 'majors' have a separate cubicle for each patient whilst older units have only few cubicles and an open space where trolleys are separated with curtains. In a minor injuries area, there is a space for waiting patients and cubicles for patients to be seen.

It is important that there is enough space in each cubicle/ around trolleys for staff to be able to move freely, particularly when equipment is brought in, for example for resuscitation purposes or for an x-ray.

Toilet facilities within the unit should include facilities for the disabled allowing enough space for wheelchair assisted transfers, separate toilets for male and female patients, and special lower toilets for the paediatric area. All toilets should have grab rails.

All areas should have a call bell for patient use and an emergency call system for staff when required.

The x-ray department should be near the A&E unit or there should be a separate x-ray facility for A&E to avoid taking ill patients too far from the department.

There should be adequate storage areas, not just for dressings and medications but also for handling equipment like hoists, slide sheets, slide boards and wheelchairs.

Corridors and doors need to be wide enough for bed and equipment access and movement.

Some doors are kept closed for security purposes, but heavy fire doors should have a system to keep the doors open long enough to allow easy access for trolleys/ beds and wheelchairs without staff having to hold the doors open whilst at the same time pushing trolleys/ beds or wheelchairs through the doorway.

6. Communication and information systems regarding initial referral and entry to the system

Ambulance services will inform A&E of the imminent arrival of seriously ill, injured or bariatric patients. Walking patients come to reception. A receptionist will inform nursing staff straight away of the arrival of a seriously ill walking person or if a request is made for assistance to get somebody out of the car.

A&E needs to inform departments and wards of the patient's condition and any special care required, such as the bariatric patient who is over the limit of 'normal' equipment as soon as a decision to admit has been made.

7. Treatment planning

The goal is either to discharge home, or transfer to another department/ facility as soon as possible.
At present, A&E targets are to move patients on within 4 hours.

8. Moving and Handling Tasks

The principles of moving and handling in A&E are similar to moving and handling in any other patient handling area, except that in most situations there is no written individual handling assessment/ plan except for a brief screening as a part of the admission procedure. Therefore staff use dynamic ('on-the-spot') risk assessments and generic protocols. Moving and handling tasks in an A&E department vary from one person/ patient to another.

8.1 Getting a patient out of a car:

8.1.1 Independently.

8.1.2 With assistance into a wheelchair either with equipment or without.
Simple use of additional hand holds such as a 'Car Caddie' or a 'Handybar' would make the patient more independent.

Verbal advice and perhaps having to give some assistance to lift the person's feet over the car sill. 'Helping Someone out of the Car'

<http://www.youtube.com>

- a) 'Techniques – getting in and out of car' see <http://www.ricability.org.uk>.
- b) Information about a range of equipment that may help such as turning/ swivel cushion, leg lifter, glide sheet, push up bar, transfer board, handling belt and tip up plates/ platforms is available 'Aids to for access into a car' <http://www.mobility-centres.org.uk>.

8.1.3 With assistance onto a trolley (of a collapsed person from a car – a high risk task)

There is an 'A&E out-of-car-kit' – (www.ferno.co.uk) – information available on the website. The kit consists of:

1. A cube, which, placed in the car well, affords support for the sliding board
2. A sliding board
3. A height adjustable trolley/ stretcher.

These may be purchased together as the full kit, or as independent items.

8.2 Pushing a wheelchair/ trolley/ bed:

For both wheelchair and trolley/ bed transfers, pushing and steering forces are taken into account including either the use of equipment such as bed movers or extra staff.

8.2.1 One member of staff is able to push a wheelchair provided the wheelchair is in proper working order and there are no heavy closed fire doors to be opened and kept open for access/ egress.

8.2.2 As all trolleys/ beds are height adjustable staff can make an ergonomics assessment and adjust the height according to their own needs to avoid stooped posture. Two members of staff push and guide an occupied trolley/ bed and for heavier patients a bed mover should be used.

8.3 Transfers on and off a trolley/ Transferring from a trolley to a bed:

8.3.1 *Independent patients* who walk into the department can usually get themselves onto the trolley/ bed with verbal encouragement. Those who are overweight or short in stature may require steps with a handle and some assistance to give 'moral' support when they are getting onto/ off a trolley that does not go low enough.

8.3.2 *Wheelchair users* who are able can use small handling aids (e.g. small transfer board and/ or turning disc) and transfer independently with supervision.

8.3.3 *Patients on an ambulance trolley* who are able to weight bear can move independently, either getting off the trolley and walking to the couch/ trolley or transfer themselves across either using their hands to lift themselves from the

trolley to the A&E trolley or by using a slide sheet once the gap between the two surfaces is bridged with a slide board.

8.3.4 Dependent ill patients, unable to weight bear, brought in by ambulance are moved using a supine lateral transfer with a slide board and slide sheets, inflatable transfer device or with a hoist, preferably a stretcher hoist. If a patient has their own hoist sling, it is used with the A&E hoist, provided the hoist has a compatible sling bar.

8.4 Providing treatment to a patient:

8.4.1 Handling limbs/ plastering/ giving injections/ applying or changing dressings on a couch/ trolley: Patients in these situations are on a height adjustable surface. Where possible, static holding of limbs is avoided, and limb support devices are used. The need for these is risk assessed.

8.4.2 Repositioning a patient on an examination couch/ trolley for examination/ tissue viability/ toileting/ x-ray.

8.4.2.a Lying to sitting on a trolley for examination:

- Independently, a patient uses either their elbows to push on the mattress or pulls on the side rails.
- Assisted using the trolley's 'sit-up function', where possible. Some patients are able to use a 'pull strap'/ rope ladder with verbal encouragement.

8.4.2.b Turning to reposition a patient on the trolley:

In terms of tissue viability, 4 hours is too long for an ill patient to stay in one position (NICE, 2005), therefore all patients unable to move/ turn by themselves are repositioned on a trolley every 2 to 3 hours (Huntleigh Healthcare, 2005). This requires at least two staff – slide sheet can help to turn and reposition on a trolley - based on a dynamic (on-the-spot) risk assessment. Turning and repositioning in A&E should be carried out as indicated by the European Pressure Ulcer Advisory Panel & National Pressure Ulcer Advisory Panel (EPUAP & NPUAP) (2009).

8.4.2.c Toileting: Patients, particularly with a fractured femur, hip or pelvis are in lot of pain and need extra staff to position them onto a slipper pan – the use of a small slide sheet aids in the positioning of the slipper pan.

The patient is rolled onto the unaffected side with care following analgesia. Using a female urinal will avoid bedpan use in some situations.

8.4.2.d Repositioning for x-rays: As all A&E trolleys have a special x-ray facility, only minimal handling is required to x-ray a person in a supine position. But, a patient may have to be moved up or down the trolley (with slide sheets) for example to be in the correct position for a chest x-ray. Two staff may be needed to assist a person to lean forward for the film to be positioned behind

them unless a special slide sheet system is in use that allows the film to be positioned without leaning the person forward.

8.5 Falling/ fallen patients: Patients can fall anywhere in A&E. Some patients are more vulnerable to falls due to their conditions including delirium, side-effects of medication, or problems with their balance (NPSA, 2011). They can also fall when assisted to walk, or fall off a trolley when restless, particularly if the side rails are not locked properly. (See G22-25).

The advice from NICE (2007) and NPSA (2011) about managing potential head injuries/ falls is followed.

8.6 Managing spinal injured patients: Patients brought in by the ambulance service with suspected spinal injuries have to be turned for the medical staff to examine the patient's spine for any signs of fractures/ tenderness. It is vitally important that all A&E staff are aware of their protocol for managing spinal injuries and carry out this task competently as one wrong move could paralyse the patient or make their condition worse. A senior member of staff is in-charge and supports/ stabilises the patient's head/ neck to maintain the airway, 3 other staff are needed to keep the spine-in-line during this process whilst the doctor examines the spine. (Refer to G9, spinal injuries).

8.7 Cardiac arrest/ resuscitation: Each A&E unit has their own agreed procedures for actions in a case of cardiac arrest and staff are aware of the procedures (Resuscitation Council [UK], 2009). (See G26).

8.8 Handling the deceased: (See G 33).

8.9 Managing patients with challenging behaviour such as those suffering from drug and alcohol abuse: There are many causes for challenging behaviour in A&E, such as: - waiting times, staff attitudes, lack of communication, the patients' physical condition (particularly as a result of a head injury), or mental illness as well as substance misuse. Staff need training/ skills in how to recognise acute mental illness and have an awareness of organic differential diagnosis as well as how to anticipate and de-escalate situations before challenging behaviour begins. Patients' behaviours as a result of substance misuse can be very challenging and cause lot of disturbance to the whole department. Managing this type of behaviour requires patience from the staff, and use of clear repeated instructions, which because they are often ignored, result in the staff having to resort seeking the assistance of security staff/ police. (NB: It is planned to cover this in greater detail in future updates [G19 and 20]).

8.10 Dealing with patients who suddenly become unconscious e.g. patients who are fitting: Staff ensure the patient's safety and their own safety first. If possible, the patient is not moved, but their privacy and dignity is considered, other patients are relocated where possible.

9. Moving and handling assessment

All A&E Departments have their own generic moving and handling risk assessments, protocols and standard operating procedures (SOPs), which are similar to the trust's procedures where possible, and all staff are aware of these.

A brief mobility assessment is part of an A&E admission procedure and each patient who has mobility issues/ needs assistance to move has a more detailed written assessment as soon as possible – often left for the admission ward to do.

Some A&E patients are independently mobile and are encouraged to be so provided they have not been given strong analgesia/ sedation, others are at varying degrees of ability, some are unconscious and fully dependant on staff.

Some emergency situations require urgent handling and good teamwork. Due to the nature of A&E work, whilst it may be more likely, that there are sufficient staff available than in a ward situation, there may not be the right number of staff when needed. The member/s of staff carry out an 'on-the-spot' (dynamic) risk assessment and take appropriate action.

10. Methods, Techniques and Approaches

Trust SOPs and A&E protocols inform re method and technique of moving and handling in the A&E department. The condition of some seriously ill patients may fluctuate rapidly and this has to be reflected in the way they are handled/ positioned.

11. Handling equipment

An A&E department should have a suitable and sufficient amount of handling equipment available to cover all age ranges. The amount of the equipment should be based on a risk assessment and will depend on the size and the layout of the department. For example a resuscitation area and majors, and minors if not adjacent, will need their own lateral transfer boards and supplies of slide sheets, but one passive hoist may be shared by all these areas. All products must be risk assessed for their suitability for use in the A&E department and for each patient. A&E staff should apply their knowledge and their risk assessment skills to choose the most appropriate equipment to use with their patient at the time of need.

Staff must report any faulty/ damaged equipment, label it the 'for repair' and immediately remove it from use.

11.1 Patient trolleys should be height adjustable with x-ray facility and easily adjusted functions, particularly for sitting a patient up or the use of head down tilt. Trolleys should go down to the height of the wheelchairs to allow sliding board transfers for wheelchair users.

It is important that the safe working load (SWL) of the trolleys and trolley mattresses is known, particularly when the population is getting heavier. Even if the SWL of a trolley/ mattress is 250kgs, a normal trolley is too narrow for some patients. Therefore, staff should be aware of a safer system of work if a heavier/ wider patient is coming in (heavier than the SWL of current provision). The department staff should be aware how to obtain appropriate equipment at short notice including out of hours.

All trolleys and beds should have a maintenance contract (PUWER, 1998). The departmental records show that all mattresses are examined at regular intervals for any evidence of damage and contamination as indicated by the MDA/2010/002 and tested for their tissue viability status - to rule out any evidence of 'bottoming out' of the mattress.

All beds/ trolleys have side rails and there is a local policy for the safe use of side rails. Trolley side/ safety rails are always used when a patient is unattended due to the narrow width of the trolley. Bed rails are used after a risk assessment as indicated by numerous alerts from MHRA, such as MDA/2007/009.

11.2 Wheelchairs: The number of wheelchairs is based on risk assessment. It is recommended that wheelchairs have arms that can be lowered, folded away or removed for ease of transferring. Similarly, footrests are either foldable or slide back away from patients' feet when transferring a patient on or off.

All A&E wheelchairs should have sufficient and appropriate attachments: drip stands, oxygen cylinder holders and 'leg extensions' for patients with fractured legs, particularly when they are waiting to be seen or taken to the x-ray department. Each wheelchair has cleaning wipes at the back of the chair as staff (porters/ nurses) are required to wipe down the chairs between patients to avoid hospital acquired infections (HAIs) (Refer to G8).

Wheelchairs are numbered and securely stored in the unit when not in use. Many A&E wheelchairs have a high SWL, but the seat of the wheelchair is not wide enough for larger patients, therefore the unit has access to a wider ('bariatric') wheelchair. Wheelchairs are regularly maintained.

11.3 Lateral (supine) transfer system: There are slide boards (used with slide sheets) or other lateral transfer systems available.

Heavier patients than the SWL of the slide board in the unit require an inflatable transfer system such as

- AirPal - Quintal Healthcare
- AirSlide - Mangar
- Hovermat - JC Medical
- Repose/ Repose Companion - Frontier Medical

The number of boards/ inflatable systems in the unit depends on the size and layout of the department and how frequently these are used.

11.4 Slide/ glide/ transfer sheets in a variety of sizes including trolley length should be available. As a result of a hospital business case - either disposable or washable slide sheets are used, these are centrally funded, allocated in the A&E to the patients who need moving on a trolley/ bed and transferred to the wards with the patients.

11.5 Small slide boards are available for sitting transfers.

11.6 Passive hoists and slings: A&E should have a passive sling hoist incorporating weighing scales with different sizes and types of single patient use slings (either disposable or washable slings - based on a hospital business case), including a stretcher attachment (scoop stretcher or similar for use with spinal injuries and lower limb fractures). Slings are transferred with patients to the admitting ward.

Heavier patients require a specialist bariatric hoist, preferably stored in A&E. A&E should have a stock of bariatric slings available.

Ideally, the A&E hoist should have an interchangeable carry bar to cover all eventualities, including using the patient's own slings.

11.7 Either a *sit-to-stand hoist* or a *turning device with a handle* or similar turning aid should be available in the department.

11.8 Access to a *Lifting cushion*

11.9 *Lifting sheets* for emergency lifting only, a hoist with a scoop stretcher/ similar is used in preference.

12. Other equipment and furniture

12.1 *Commodes and patient use chairs* will have arms, be conveniently sited, and of an appropriate SWL. Chairs should have housekeeping wheels on the back legs to allow easier repositioning of the chair where required.

12.2 *Chairs for relatives' use* will be conveniently sited and of an appropriate SWL.

12.3 *Weighing scales:* It is important that A&E has facilities to weigh patients and record their weight accurately before doctors prescribe certain medication. Therefore, A&E should have paediatric scales for babies/ young children and adult scales with a SWL of at least 200kgs, with access to 'bariatric' ones.

12.4 *Limb support devices* are available to avoid static holding of heavy limbs, the need for these is risk assessed.

12.5 Trolleys for instruments/ dressings are available in sufficient quantities and heights to transport equipment/ instrument trays/ theatre packs/ boxes of intravenous or irrigation fluids, to suit staff need. IV fluids should be stored in a designated area above knee and below head height.

12.6 Steps with handles are available to help patients to get on/off a trolley if it doesn't lower sufficiently, and to enable staff to access high shelves.

12.7 Steps and/ or step stools are provided for staff to enable access from high shelves.

12.8 Oxygen/ gas cylinder trolleys are available to securely transport oxygen/ gas cylinders in the department, from the storage area to where the cylinder needs changing (EFA/2010/008). Piped oxygen to each cubicle/ trolley space decreases the amount of cylinder handling, but trolleys still need a portable oxygen cylinder for transfers from A&E to another department/ ward. Each trolley must have a secure place for a cylinder and access to change cylinders must be easy. Porters and other relevant staff should be trained in safe changing and use of oxygen cylinders.

12.9 Laundry bag holders are on wheels and suitable for either plastic or material laundry bags. Laundry cages for 'dirty' laundry bags are ones where staff can avoid lifting laundry bags above their shoulder heights.

12.10 Rubbish bins should allow the removal of used bags without the need to lift above shoulder height.

12.11 Height adjustable stools for surgeons, anaesthetists and other staff, particularly in the A&E theatre are available.

12.12 Computer workstations are preferably adjustable height, with adjustable seating. Special consideration should be given to screen height particularly for digital x-ray viewing.

13. Risk Rating

To carry out a 'suitable and sufficient' assessment, each task should be evaluated as part of the assessment process, so that the level of risk is quantified. Such assessments should be used, wherever possible, in the design of a safe system of work, and in highlighting any residual risks.

Various systems exist, but it is suggested that the NHS risk management 5x5 matrix, with 0-25 scale, is used for an overall evaluation of risk (NPSA, 2008) (see CD1, appendix 9 in folder 5). It is in common use, simple to use with 5 levels of risk, determined by a calculation of the likelihood or probability of an adverse event occurring multiplied by the severity of consequences or impact should it occur.

Likelihood/Probability (0-5) x Severity of Consequences or Impact (0-5) = 0-25

The values below are based on this system. Calculations lead to the following possible scores or ratings: -

1 – 6 = Low; **8 – 12 = Medium;** **15 – 16 = High;** **20 = Very High;** **25 = Extreme**

These ratings can then be used to alert staff, to prioritise action and justify any necessary expenditure to make the situation safer, on the basis of reasonable practicability. Options can be evaluated by considering risks, costs, and actions planned or taken, to reduce the level of risk to the lowest level that is reasonably practicable, which can thus be demonstrated.

On arrival in A&E the patient's physical and mental condition is unknown and may be subject to fluctuation. This may lead to higher handling risks. For more information on risk rating, please refer to Brooks, A and Orchard, S (2011).

In A&E postural risks for staff are likely to be significant. For assessing postural risks and those associated with tasks other tools are available, such as RULA (Hignett S & McAtamney L, 2006), REBA (Hignett S & McAtamney L, 2000) and OWAS (Karhu et al, 1977). These not only look at postures but forces.

14. Alerting the M&H team

This depends on the experience of staff on duty at the time, and on the availability of equipment required. Should any problem be envisaged, or arise, staff are aware of how to contact them including out of hours procedures.

15. Referral to and involvement of other specialists

This depends on the patient's condition.

16. Transport (internal and external)

Whilst in the department patients move from area to area independently, or they are pushed in a wheelchair by 1 member of staff, or on a trolley/ bed by 2 members of staff. (Anecdotally, most A&E nurses are injured as a result of moving a trolley or bed on his/ her own particularly, through fire doors).

Private cars/ taxis and ambulances are used to collect patients. A&E staff are expected to assist with private cars and taxis.

17. Discharge and transfer planning

All patients, if not discharged home, are referred to the relevant team who should be advised of any moving and handling needs prior to transfer.

If discharged home, steps should be taken to ensure that the patient can manage and appropriate support is provided. Sometimes the relevant agency is asked to assess the patient in A&E prior to discharge. (Refer to G34 –discharges and transfers.)

18. References

Health & Safety at Work etc Act (1974) Ch37, Sec 2(1), (2); Sec 7

Benner P (1984) *From novice to expert. Excellence and power in clinical nursing practice* Boston: Addison-Wesley pp 13-34 as cited in Ruszala S, Hall J and Alexander P (2010) 3rd edition Standards in Manual Handling Towcester: NBE

Brooks, A and Orchard, S (2011) *Core person handling skills* in Smith, J (Ed) *The Guide to the Handling of People a systems approach (6th ed)* Teddington: BackCare

Care Quality Commission (2010) *Essential Standards of Quality and Safety*

www.cqc.org.uk/db/downloads/Essential_standards_of_quality_and_safety_March_2010 Retrieved 18 September 2011 Outcome 11 & 13

Department of Health (2010) Estates and facilities Alert Ref: EFA/2010/008 'Unsecured Medical gas cylinders, including cylinders on trolleys', issued 27/7/2010 <http://www.dhsspsni.gov.uk> Retrieved 14 April 2011

European Pressure Ulcer Advisory Panel (2009) *Pressure Ulcer Prevention Quick Reference Guide*, European Pressure Ulcer Advisory Panel website <http://www.equap.org/guidelines.html> Retrieved 13 July 2011

The European Pressure Ulcer Advisory Panel & National Pressure Ulcer Advisory Panel (2009) *Pressure Ulcer Prevention Quick Reference Guide* <http://www.epuap.org> Retrieved 13 January 2012

Hignett S. and McAtamney L. (2000) *Rapid Entire Body Assessment (REBA)* Applied Ergonomics 31:201-205

Hignett S & McAtamney L (2006) *REBA and RULA Whole body and Upper Limb rapid assessment tools* in Karwowski W & Marras WS (Eds) the Occupational Ergonomics Handbook (2nd^{ed}) Boca Raton FI CRC Press 42-1-42-12

HSC (1998) *Safe use of lifting equipment Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) Approved Code of Practice and guidance L113* Sudbury: HSE Books Regs 4, 5, 7-9

HSC (1998) *Safe use of work equipment Provision and Use of Work Equipment Regulations 1998 (PUWER) Approved Code of Practice and guidance L22 (Third edition)* Sudbury: HSE Books Regs 4-6, 9

HSE (2007) *Bed Rail Risk Management - SIM 07/2007/06*
<http://www.hse.gov.uk/foil/internalops/sectors/public/070706.htm> Retrieved 04 April 2011

HSE (2000) *Management of health and safety at work Management of Health and Safety at Work Regulations 1999 Approved Code of Practice and guidance L21* Sudbury: HSE Books Reg 3 (1), 4, + Schedule 1;5

HSE (2004) *Manual handling Manual Handling Operations Regulations 1992 (as amended) Guidance on Regulations L23* 3rd edition Sudbury: HSE Books, Reg 4(1)(b)(i)(ii), Schedule 1, Appendices 1 - 3

Huntleigh Healthcare (2005) *Principles of Alternating Pressure*
<http://www.ulcers.net> Retrieved 29 September 2011

Karhu O, Kansu P, Kuorinka I (1977) *Ovako Working-posture Analysis System* in Applied Ergonomics Vol 8 Issue 4 p199-201

MHRA (1999) MDA HN 9711, *Bed side rails*, Available at:
<http://www.mhra.gov.uk/home/groups> Retrieved 11 April 2011

MHRA (2001) DB/2001(04) *Advice on the Safe Use of Bed Rails*
<http://www.mhra.gov.uk/Publications/Safetywarnings/> Retrieved 10 April 2011

MHRA (2006) DB 2006(06) *Safe Use of Bedrails* (replaced MDA 2004/007 Bedrails: Twin bar designs)
<http://www.mhra.gov.uk/Publications/Safetyguidance/DeviceBulletins> Retrieved 10 April 2011

MHRA (2007) MDA/2007/009 *Bed rails and grab handles* Available at:
<http://www.mhra.gov.uk/Publications> Retrieved 10 April 2011

MHRA (2008) MDA/2008/007 *Stretchers/ trolleys manufactured by Stryker medical*, issued 18 February 2008
<http://www.mhra.gov.uk/Publications/Safetywarnings/> Retrieved 10 April 2011

MHRA (2010) *Medical devices Alert: All types of bed mattresses* MDA/2010/002, issued: 5 January 2010
<http://www.mhra.gov.uk/Publications/Safetywarnings/Medicaldevicealerts/CON065783> Retrieved 10 April 2011

National Pressure Ulcer Advisory Panel (2009) *Pressure Ulcer stages Revised by NPUAP* <http://www.npuap.org> Retrieved 27 August 2011

NHS Information Centre (2011) *Hospital Episode Statistics (HES) Accident and Emergency Attendance in England (Experimental Statistics) – 2009/10*
<http://www.ic.nhs.uk> Retrieved 10 April 2011

NHS Scotland (2000) QE National Spinal Injuries Unit *Pre hospital care and transfer of a spinal cord injury* 2nd ed

<http://www.spinalunit.scot.nhs.uk/spinal%20Documents/TRANSFER> Retrieved 10 April 2011

NHS Staff Council (2010)/ Partnership for Occupational Safety and Health in Healthcare/ London/ Leeds: NHS Employers available at <http://www.nhsemployers.org/Aboutus/Publications/Documents/Occupational%20health%20and%20safety%20standards.pdf> Retrieved 11 September 2011

NICE (2003) *Infection control Prevention of healthcare-associated infection in primary and community care* CG2 London: NICE www.nice.org.uk Retrieved 29 August 2011 1.1.2 p5-6, 1.1.3 p6-7, Criteria 1-3 p40

NICE (2005) *CG29 Pressure Ulcer management: quick reference guide* <http://www.nice.org.uk> Retrieved on 07 August 2010 Guideline A, B, C

NICE (2005) *CG25 Violence the short term management of disturbed/ violent behaviour in psychiatric in-patient settings and emergency departments*

NICE (2007) *Head injury; triage, assessment, investigation and early management of head injury in infants, children and adults* NICE (UK) <http://www.nice.org.uk/CG56> Retrieved 13 September 2011

NPSA (2007) *Slips trips and falls in hospital* NPSA: London <http://www.nrls.npsa.nhs.uk/resources/patient-safety-topics/patient-accidents-falls> Retrieved 11 September 2011

NPSA (2008) National Patient Safety Agency *A Risk Matrix for Risk Managers* www.npsa.nhs.uk Retrieved 18.02.13

NPSA Patient Safety First Campaign (2009) *Patient Safety First 2009 The 'How to' guide to reducing harm from falls* National Patient Safety Agency: London [Http://www.patientsafetyfirst.nhs.uk](http://www.patientsafetyfirst.nhs.uk) Retrieved 13 September 2011

NPSA (2010) *Slips trips and falls data update* NPSA: London

NPSA (2011) *Rapid Response Report NPSA/2011/RRR001, Essential care after an inpatient fall* www.nrls.npsa.nhs.uk/alerts Retrieved 13 September 2011

NPSA (2011) *Rapid response report NPSA/2011/RRR001 Essential care after an inpatient fall- supporting information* <http://www.nrls.npsa.nhs.uk> Retrieved 16 September 2011

RCN (1999) *RCN Code of Practice for patient handling* London: RCN

Resuscitation Council (UK), (2009), *Guidance for Safer Handling during Resuscitation in Healthcare Settings*, November 2009, Available at: <http://www.resus.org.uk> Retrieved 10 April 2011

Ruszala, S., Hall, J. and Alexander, P. (2010) *Standards in Manual Handling* (3rd edition) Towcester: National Back Exchange

19. Further reading

Driscoll P, Skinner D and Earlam R (2000) *Ch 8 Spine and spinal cord injury ABC of major trauma 3rd ed* London: BMJ Books

Hignett, S (2001) *Case study of qualitative methodology in hospital ergonomics 'Embedding Ergonomics in hospital culture: top-down and bottom-up strategies'*
<http://www.sciencedirect.com/science?> Retrieved 11 April 2011

Useful web-sites

<http://www.youtube.com> - 'Helping someone out of car'

<http://www.ricability.org.uk> - 'Techniques – getting in and out of car'

<http://www.mobility-centres.org.uk> – 'Aids to for access into a car'

[http:// www.ferno.co.uk](http://www.ferno.co.uk) – 'A&E out of car kit'

Summary/ Key Messages

➤ **The intention of the entire strategy and standards document is to contribute to the improvement of: -**

- The quality of care - 'patient experience' (dignity, privacy and choice)
 - clinical outcomes
- Patient/ person safety
- Staff health, safety and wellbeing
- Organisational performance – cost effectiveness and reputation, etc.

➤ **The standard for G2 is:**

Systems are in place for the safer handling of patients and inanimate loads in A & E in all situations that are reasonably foreseeable.

➤ **Skilful M&H is key**

➤ **Special points for G2 are: -**

- **A brief mobility assessment is a routine part of each patient's assessment on arrival to the department and all staff are aware of and carry out a dynamic ('on-the-spot') M&H risk assessment before any handling of patients/ inanimate loads**
- **Handling equipment readily accessible for use**
- **Competency based training in M&H in the A&E is provided together with local supervision**