G22	Standard	Prevention of falls and the manual handling management of the falling person

Systems are in place to: (1) prevent falls where possible
(2) manage the **falling person**

Justification

Rationale

This is a problematic area where rapid decision-making is required and outcomes uncertain. Risks are high and guidance is difficult in such a 'grey area'. Even with the very best preventative measures a number of falls will be inevitable and staff must be equipped with the best available approaches to allow the person to fall and step out of the way, redirect the fall or control the fall.

Authorising Evidence

HSWA (1974); Care Standards Act (2000); MHSWR (2000); MHOR (2004); LOLER (1998); PUWER (1998)

Links to other published standards & guidance

COT (2006); Betts & Mowbray (2005) HOP5; DH (2001 amended 2007); DTI (1999); HSE/ HSAC (1998); HSE (2012); HCPC (2013); Mandelstam (2002); NICE (2004) CG21; NICE (2013) CG161; NMC (2008); NPSA (2008); NPSA (2011); Patient Safety First (2009); Ruszala (2010); Ruszala et al (2010); Sturman (2011) HOP6

Cross reference to other standards in this document

A1-3, 5, 9-14; B1-4, 7-9, 12,13; C1, 4-8, 11, 15; D1-4, 6, 14, 16; E4; F (All); G1, 16, 21, 23-26; J1-5, 8, 10; K2

Appendices

Attachment 22

Verification Evidence - requirements for compliance (to achieve and maintain this standard)

- An agreed approach, informed by evidence-based best practice, documented in both M&H and falls policies, disseminated to all staff and embedded within the organisation
- Risk assessments (for falls and M&H) that are 'suitable and sufficient', robust and balanced, with 'screening' to focus attention on those most at risk
- Safe systems of work and standard operating procedures, including falls preventative measures, and decision support systems for allowing, redirecting or controlling the unavoidable fall
- Information and communication systems – including documentation
- Competent, healthy staff, in sufficient numbers
- Training (theoretical and practical) and supervision
- An environment conducive to good care
- If a fall does occur the person, staff and relatives are supported emotionally throughout and after their experience, with debriefing
- Investigation of and learning from, falls and adverse events, using root cause analysis to locate the cause and prevent a recurrence SFAIRP (Patient Safety First, 2009)
- 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 the status (compliance) to the organisation
- Action plans to correct any lack of compliance
- The culture is one of learning rather than 'blame and shame'

of the falling person

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It is recommended that protocols G23-26 are read in conjunction with this protocol where relevant.

Terminology – For the sake of simplicity the person who maybe about to fall or is falling, is referred to in this protocol as the 'person', rather than the 'patient'. Similarly, 'person' is used when discussing those who have not yet fallen, but who may be vulnerable and require assessment and preventative measures, although they may be a patient or service user, etc. Where the person is undergoing treatment or rehabilitation they may be referred to as a patient. Similarly, in direct quotations the term patient may be used in order to remain faithful to the text.

1. Introduction and background

This protocol is directed at the prevention of falls and the mitigation of ensuing harm should the person start to fall.

If a person does start to fall, it may be appropriate for a member of staff who is nearby and witnessing the event, or acting as a handler, supervising or assisting a transfer, to let the person fall. This may be the safest thing to do in the particular circumstances. However, if the handler can mitigate the effects of a fall without putting themselves unduly at risk, by redirecting or controlled lowering to the floor, they should do so. These two options should be differentiated from catching or taking the weight of a falling person which is not recommended.

Whereas a handler is likely to be injured when attempting to catch a falling person (Fray, 2003), most falls do not result in serious injury to the person (DH, 2001). However, falls are a major problem for health and social care (NICE, 2013) and affect a third of the population over the age of 65 (DTI, 2007) and about 45% of the over eighties who live in the community (DH, 2009). Persons of any age can fall (NPSA, 2010; Patient Safety First, 2009). There is a raft of evidence to show that the risk of falls increases in people aged 65 and over (Cochrane Review, 2010). Inpatient falls account for one third of the patient injuries in the NHS (HSE, 2006; NPSA, 2011) and are the most frequently reported incidents in acute hospitals (NPSA, 2007). The Cochrane review found that older people living in residential and nursing homes are three times more likely to fall compared to individuals living in their own homes (Cochrane, 2010). It is likely that residential and nursing homes specialising in dementia care will have a higher incidence of falls (NPSA, 2010).

There are personal, financial and social costs associated with falls. The approximate cost of falls for health and social care is £1.7billion (Royal College of Physicians, 2005). Falls-related injuries are a leading cause of mortality and approximately 647,721 attend the accident and emergency department annually after a fall (NICE, 2013). Following a fall it is often possible that the person will suffer from either temporary or permanent disablement and there is an increased risk of premature admission to a care home (NICE, 2004). Help the Aged (2004) found that 25% of older people who fall in care homes suffer from serious injuries and 40% of people aged 65 and over are admitted to hospital following a fall.

"Organisations should ensure they have a falls strategy or policy to manage falls risks and interventions (DH 2001, 2007). The policy should be balanced and acknowledge the duty of care workers have in protecting themselves and the recipient of care from injury" (Sturman, 2011).

During 2008-2009 there were 131 RIDDOR reports following injuries to staff working in care homes (HSE, 2010a). Manual handling (MH) risk increases when people fall because the member of staff/ carer attempts to catch, support or intervene instinctively to prevent injury to the person, sometimes injuring themselves in the process. Also, when people fall, they instinctively try to grab anyone nearby as they are frightened of falling.

Hignett and Sands (2009) and the HSE (2010a) found that most interventions with a falling person occurred when staff were supporting the person to transfer from one surface area to another, for example chair to chair or during a moving and handling (M&H) transfer, although Hignett and Sands (2009) and Sturman (2008) emphasise that the majority of falls are not witnessed by staff.

There is an abundance of literature exploring the risk factors contributing to falls. The College of Occupational Therapists (2006), Royal Society for the Prevention of Accidents (2007) and the Cochrane Review (2010) all conclude that a fall generally occurs as a result of an interaction between different potential risk factors. The reasons why people fall are complex and multifactorial. Many authors, including Masud and Morris (2001), and NICE (2013), divide falls risk factors into three groups:

i) Intrinsic factors relating to the falling individual, for example, medical, physical and functional
ii) Extrinsic factors relating to the environment
iii) Behavioural factors relating to mental health, compliance and cognition.

(A table of these risk factors can be found in Sturman, 2011).

Literature evidence (DH 2001, 2007) emphasises the importance of managing falls through robust multidisciplinary risk assessment strategies. If organisations address falls risks they are highly likely to reduce the number of injuries to persons and staff as a result of intervention (Sturman, 2011). In other words, prevention is the key.

2. Management, organisation, supervision and support

The prevention and management of falls is a key government priority (DOH, 2007). Falls are a foreseeable event within all health and social care establishments and there should be systems in place to manage falls, and both the falling and fallen person (see G23-26). Sturman and Hancock (2009) recommend that organisations need to start with an investigation of their current falls management processes. Multifactorial risk assessment is essential in order to identify and manage problem areas. Organisations should have a dedicated falls advisor/ team in post (NICE, 2013).

Although the ideal is prevention, it is impossible to eliminate all falls, therefore there should be measures in place to cover these hopefully rare events (see subsequent sections). The actual management of falls should be the last resort, as the most important point is to have a safe system of work with suitable risk management in place, in order to prevent them. It is suggested that relatives be informed in advance that the person has been assessed and the risk of a fall has been reduced to the lowest level reasonably practicable through a falls management hierarchy/ falls prevention measures (see Attachment 22).

The provision of clear definitive guidance is challenging for three reasons: -

(i) Case law, some of which is illustrated in the table below, indicates the complexity of this area and a range of judgements
(ii) There is a lack of evidence to support particular approaches
(iii) Experts disagree to some extent

Case law (Mandelstam (2002); Sturman, 2011)

Date	Case	What happened	Judgement

2000	Brown v E Midlothian NHS Trust	Auxiliary nurse sustained a back injury when she tried to stop an elderly person from falling.	The court: - was satisfied the trust had provided appropriate training which included discussion on managing a falling person. - they acknowledged that theoretical and pictorial discussions were sufficient, that it was not practical to practise techniques for assisting a falling person to the floor. - accepted practical demonstrations to manage a falling person were not essential. - identified that the nurse should have stopped the person from standing up and called for assistance.
2000	Fleming v Stirling City Council	Care assistant in a residential home sustained a back injury trying to stop a 9st person falling. Person was in the toilet, tried to stand up and fell sideways – assistant tried to prevent this but took the person's full weight.	The court: - found the employer in breach of MHOR for failing to assess people who were at risk of falls. - found that the defendant had failed to undertake a falls risk assessment, falls being a foreseeable event. - recommended the implementation of safe systems of work to protect employees.
2006	Dockerty v Stockton-on-Tees Borough Council	Home care assistant sought damages after an elderly person, being assisted by her son, relaxed and fell onto the carer.	The court: - felt the employer's policy was defective because it stated employees should allow a person to fall. - felt that the organisation's policy and training failed to recognise the human desire of employees to assist people in receipt of care. - emphasized that neither training nor policies should be aimed at eliminating the desire to care.
2008	Un-named v Suffolk Coastal PCT	Employee injured whilst assisting a colleague to transfer an elderly person with dementia. During transfer, the person fell on top of claimant who suffered a back injury.	The court: - felt the incident could have been avoided through identifying risks and appropriate M&H training.

The above case law confirms that:

- Risk assessment and safe systems of work are mandatory
- Specific training is essential.

However, other areas are less clear and even the courts do not all agree. From the above it can be seen that:

- Practical demonstrations are not deemed essential
- Employers cannot eliminate an employee's instinctive desire to care.

These can be construed as apparent contradictions and indicate that currently there is no overall consensus on the actions to be taken, and whether these should be simply explained, and/or demonstrated, and/or physically practised by handlers in MH training sessions.

In rehabilitation, risks have to be taken in order to permit the person to progress. For example, there is still a risk of falling when a person progresses from a hoist with walking harness/ lift walker with leg supports to a wheeled/ standard walking frame. Such risks have to be managed to reduce both the likelihood and the consequences of a fall to the lowest level that it is 'reasonably practicable' (HSWA, 1974) to achieve, by taking 'reasonable care' (Donoghue v Stephenson, 1932). However, there will remain an inevitable level of residual risk. Some of this risk will be to the person and some to the handler/s. It may be possible to control the risk to some degree in such a way that it can be 'allocated' to the person alone, the handler/s alone, or some combination of person and handler/s.

In the context of common law and professional duty of care, case law, legislation and regulations, approved codes of practice, codes of conduct, guidance and organisational policies, the question is the degree to which the risk should be allocated to each party (person or handler/s), assuming it can thus be allocated.

Organisations and professionals are obliged, by law and their codes of professional conduct, to make balanced decisions – 'blanket policies are not acceptable' (A & B, X & Y v East Sussex, 2003). Employing organisations must protect their employees from harm, but must also protect others who are affected by their activities; this means handlers and persons (HSWA, 1974).

In order to make balanced decisions regarding two or more risks, each of the risks needs to be evaluated so that they can be compared in a rational way. The NHS risk matrix provides a convenient tool for doing this (see Section 13, Risk rating). Employers must decide, and make as clear as possible (in their policies, training and supervision), where the balance is to lie. It is however difficult to escape the conclusion that both the person and the handler/s have to take some part of any unavoidable risk.

Staff governed by the NMC (2008, p2) have to *"make the care of people your first concern".*

Those governed by the HCPC (2013) must *"understand the need to act in the best interests of service users at all times"* (standard 2.1) and *"understand the need to maintain the safety of both service users and those involved in their care"* (standard 15.1).

Part of this process involves a 'suitable and sufficient' risk assessment, taking into account all relevant risk factors relating to a particular risk (MHSWR, 2000 & MHOR, 2004) and the reduction of risk/s to the lowest level that it is reasonably practicable. In addition, all of the risks that could reasonably be expected to be relevant to the situation need to be considered, for example those relating to ***not*** rehabilitating the person. If risks are not taken in rehabilitation and the person does not progress, other risks will present themselves, relating to immobility and the person not reaching their potential. This may lead to a contravention of other legislation (HRA, 1998). An approach or policy that is averse to one kind of risk may well increase risks and impose costs in other areas.

There needs to be evidence that the organisation has fully addressed these issues in a balanced way, with stakeholder involvement.

Training and competence

Training should focus on risk management strategies and include pictorial and theoretical explanations on how to manage the falling person (Brown v E Midlothian Trust, 2000). Falls management issues should be addressed within M&H training or as a separate course (Sturman, 2011). M&H training should be to the level of competence required and should include specific training on how to manage the falling person (Ruszala, 2010). The skill level for controlled lowering has been assessed as 'Expert', whilst that for redirecting falling on the stairs is considered to be 'Competent' (Sturman, 2011). Programmes tailored to meet the needs of specific groups/ teams are generally the most useful (HSE, 1998). The level of skill required is high (competent – expert), and as this can only be achieved through supervised practice, dedicated training is essential.

The professional codes of conduct that apply to nurses & midwives and healthcare professionals such as therapists, place an obligation on them to work within their level of competence.

NMC (standard 39) (2008) *"You must recognise and work within the limits of your competence".*

HCPC (standard 15.2, 2013) states physiotherapists should *"know and be able to apply appropriate moving and handling techniques".*

It may be argued that training in falls management that does not include a practical element, leading to competence, would mean that healthcare workers cannot take part in any activity where they might be required to deal with such situations. In practice this would exclude healthcare workers from most rehabilitation and care procedures – clearly an untenable situation.

Competence in practical skills can only be achieved by learning motor skills, through experiencing practical procedures under supervision. Therefore this

suggests that organisations should provide practical training and ensure that their staff are competent in falls management. Also healthcare workers must ensure that they receive such training.

Practical training in falls management is not without risks to delegates who role-play as handler and person (Betts & Mowbray, 2005). These risks can be reduced e.g. by using a light weight simulated person and crash mats, although these also have their own risks. Organisations should demonstrate that the risks incurred when providing such training are outweighed by those that would be incurred in the clinical setting should such training not be provided.

All healthcare professionals who deal with persons at risk of falling should maintain basic professional competence in falls assessment and prevention (NICE, 2004).

Due to the complexity of these events, and the different schools of thought, it is impossible to dictate an absolute approach and more research is urgently needed into this difficult area of work. The handler will need to decide on the most appropriate action according to the dynamic risk assessment.
Handlers with good observational skills, knowledge of their patients/ service users (persons), awareness and intuition, may be able to detect the precursors of a fall and take timely preventative action.

There are various options that can be employed by a member of staff when a fall occurs. If the person or handler is injured as a consequence of the decision/ action taken at the time, the handler should be supported by management provided s/he acted in accordance with organisational policy. Support, in the form of a post fall debrief, should be available, to include the person, relatives and handler/s, as appropriate.

3. Staffing levels

Staffing levels will vary depending on the department and organisation, but it is essential that sufficient numbers of staff are available (CQC, 2010) particularly where persons who have been identified as being at risk of falling are cared for. It is likely that residential and nursing homes specialising in dementia care will have a higher ratio of staff to residents compared to other areas (Sturman, 2011).

Staffing levels for each M&H transfer will vary according to the person's size, medical diagnosis, behaviour and functional ability.

It is recommended that a minimum of two staff are required to assist/ supervise persons who have variable mobility and an increased risk of falling, e.g. one walking behind with a wheelchair (Sturman, 2011) but this will depend, amongst other things, on the staff and the equipment available (Smith & Orchard, 2009) as well as the task and the person's ability.

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

Organisations should have training systems in place to cover the management of the falling person and the management of the fallen person (Betts & Mowbray, 2005; Sturman, 2011). (See also Section 2 – Training and competence)

NB: Novices and advanced beginners may not only put themselves at risk, if working unsupervised, but also colleagues and the person being cared for.

Consideration must be given to family carers and personal assistants who are unlikely to be working under supervision; however, they should be provided with training once it is recognised that the cared for person is at risk of falling.

Novice:
New support workers, care assistants, family carers, personal assistants, students, therapists and nursing staff with no/ limited experience of managing a falling person. Their role is to: - call for help; observe others dealing with the falling person, but not participate themselves, except to follow directions from a competent/ proficient member of staff.

Advanced beginner:
Care assistants, students familiar with care work, family carers, personal assistants, therapists and nursing staff who have some experience, through observing others, plus basic instruction/ training (e.g. from a mentor) for dealing with a falling person.

Competent:
All the above who have had further care experience and who have received specific training and been assessed as competent in risk assessment and the hierarchy of ways to reduce risk (see Attachment 22) and in the safer intervention of the falling person. They are able to help with supervision of more junior staff.

Proficient:
M&H key workers, other key workers, trainers, therapists and nurses who have received specialised training in the prevention and safer management of the falling person and been assessed as competent. They can assess competence in others.

Expert:
Certain strategies and techniques have been identified as requiring the skill level of 'expert' (see Section 2 Training and competence).

5. Environment

Falls can occur in all environments within health and social care, including outside areas e.g. car parks and gardens, and extrinsic risk factors (Sturman, 2011) can contribute to the incidence of falls.

All falls risk assessments and strategies should include a review of the clinical and working environment (SCIE, 2005; Cochrane Review, 2010). Falls can be reduced with simple adjustments to the environment, for example:

i) Floors should be level, free from slip/ trip hazards, with enough space (Ruszala, 2010) and ideally have a low slip potential (HSE, 2010b). In the person's own home this would include an absence, or control of, rugs, cables, thresholds, clutter and pets
ii) Avoidance of patterns and 'glittery' flooring (dementia persons can perceive these as gaps in the floor or as water) (Oddy, 2011)
iii) Sufficient lighting and reduction of sudden changes from dim to bright and vice versa, reduction of reflections (Oddy, 2011)
iv) Provision of solid furniture with braked wheels in case the person likes to use furniture as a prop
v) Use of variable height furniture to facilitate independent transfers
vi) Positioning of furniture prior to transfers e.g. positioning the chair next to the bed for bed-chair transfers; strategic placement of a chair en route if walking when the person is unable to walk far
vii) Location and use of grab rails
viii) Sufficient space in the working area and a clear route if walking
ix) Toilet seats, grab rails, doors and furniture that differ in colour from flooring, walls and background (Oddy, 2011)
x) Cables around beds and transfer areas should be secured out of the way
xi) When designing the layout of a building consideration should be given to the size of doorways and width of corridors. Corridors should be wide enough for three people to walk abreast (HBN, 2013; Oddy, 2011)
xii) Following assessment, assistive technology should be used to reduce the incidence of falls, for example bed sensors, ultra-low profiling beds, tumble mats, chair sensors, floor sensors and bed rails
xiii) If using bed rails, a bed rail assessment must always be completed (HSE, SIM 07/2012/06, 2012)

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

All older people aged 65 and over, admitted to hospital, and those living in a residential or nursing home should be screened to determine whether they need a falls risk assessment completed as part of their care plan (NICE, 2013; Sturman, 2011). This also applies to younger people identified as being at risk of falling. All students and health and social care staff must receive information and specific training on how a person should be screened and assessed (Blum & Korner-Bitensky, 2013; Cannard, 1996; Mathias et al, 1986; Morse, 2008; Tinetti, 1986) to inform decisions regarding the prevention and management of falling.

Within hospital and social care environments, the results of the assessment and on-going management of the falling person should also be communicated to the family and all relevant staff.

All staff should be informed of persons identified at risk of falling.

7. Treatment planning

The goal is to concentrate on identifying potential falls risks and to implement strategies to reduce the likelihood of a fall, and the consequences should the person fall.

Any post-fall rehabilitation treatment should follow a detailed plan to include balance, strength, flexibility, endurance and the provision of appropriate mobility and safety equipment (DH, 2001/2007), with appropriate risk control measures e.g. a second handler following behind with a wheelchair when a person at risk is being walked. (See G21, Section 7, and Attachment 22 of this protocol, for further details).

8. Manual handling tasks in relation to a falling person

The task will vary depending on where the handler is in relation to the person. The three possible tasks (where the handler is close enough to intervene) are to:

i) Allow the person to fall/ handler moves away
ii) Redirect the fall
iii) Control the fall (Ruszala, 2010; Sturman, 2011).

However, handlers should not attempt to catch or support the weight of a falling person. Incorrect intervention will lead to injury of the handler and possibly the person (Ruszala, 2010; Sturman, 2011).
Where the handler is not close enough to the falling person (usually taken to be arms-length), or where furniture or other objects are between the handler and person, intervention should not be attempted.

9. Moving and handling and falls assessments

Systems must be put into place to cover the necessary range of assessments that have their place in this context: -

- Generic risk assessments
- Moving & handling assessment
- Fall assessments, including screening
- Falls management hierarchy
- Dynamic assessments
- Risk rating

Generic risk assessments
Organisations should complete a generic risk assessment and formulate a strategy identifying appropriate systems to prevent falls and to manage a falling person, in different situations.

The available research on the biomechanics of catching a falling person should inform the assessment process and be used to help formulate appropriate strategies. (see Section 13).

When working with people who have variable mobility, behavioural or mental health problems and who have a tendency to 'lower themselves' to the floor, a risk assessment of the environment and a management plan should be formulated.

Moving & handling assessment
All persons who require assistance to transfer or reposition must be assessed. Depending on the complexity of the situation, this process will lead either to the use of SOPs, or personal individual procedures ('PIPS') based on a more detailed assessment. M&H assessments can be carried out jointly with falls assessments as there is a considerable overlap in the factors that need to be considered.

Fall assessments, including screening
In order to ascertain whether an individual person is at risk of a fall, an initial screening process should be carried out at first contact, by asking a few questions;
e.g. Have you had any falls in the past two years? Yes/ No.
Do you suffer from dizzy spells or have any balance problems? Yes/ No

If there is a 'yes' answer to either of these questions a falls risk assessment must be carried out.

Some examples of falls risk assessments are identified below;
- Berg balance scale (Berg K et al, 1989; Berg KO et al, (1992)
- Cannard falls risk assessment tool (undated)
- The Morse Fall Scale (Morse J, 2009) validated for ITU
- STRATIFY risk assessment tool (Oliver et al, 1997)
- 'Timed up and go' test (Mathias et al (1986)
- Tinetti balance assessment tool (Tinetti ME, 1986)

With the assessment there should be strategies on the best way to manage a falling person, for example no intervention, redirection (protect head), control the fall.

Falls management hierarchy
There should be a comprehensive documented falls management hierarchy (see Attachment 22), showing clear progression, identifying what equipment is available/ to be used for reducing risk to both person and handlers. In this way progression can be made whilst maintaining a high level of safety for person and handlers.

Dynamic assessments
In order to prevent a fall with any subsequent intervention, a dynamic 'on the spot' risk assessment should be carried out in the following two situations: -

a) Whenever the person is to be supervised or assisted to transfer or mobilise. This can be carried out at normal speed

b) Rapidly when a person is perceived to be about to fall or is actually falling. The same factors will need to be taken into account, as far as this is possible

a) The process should start by carrying out a further 'screening' procedure; this will inform how the handler proceeds. This entails:
- gathering current information from the care plan and falls risk assessment, relevant staff/ family carers
- talking to the person concerned and asking them leading questions such as 'How are you today? How are you getting on?'
- using the answers will lead to a dynamic 'on the spot' risk assessment/ POSRA (personal on the spot risk assessment, Love, J & S, 2006) following a routine mental checklist – this is informal, instant, intuitive, individual, following TILE. This will include:
  - the person's general state of alertness
  - the condition of the person's feet e.g. toenails
  - whether the person is correctly and securely shod
  - whether the person is wearing loose but secure clothing
  - whether the person is wearing the correct glasses
  - ensuring any hearing aid is in situ and working
- informing the person of the intended plan
- ensuring the person understands what is required
- preparing for the intended activity
- focussing attention on the person and only talking about the activity being undertaken.

b) This assessment is virtually instant. The handler will utilise her senses and respond almost automatically in accordance with the training provided.

Risk rating
It may be appropriate to quantify the risks to person and staff (see Section 13 Risk rating).

10. Methods, techniques and approaches

Prevention is key, but some falls will occur even in the best regulated environments/ organisations, particularly when rehabilitating.

In rehabilitation, risks have to be taken in order to permit the person to progress (as mentioned in Section 2).

N.B. The person may have mental health problems and be unaware of immediate danger.

Three basic options are presented in Ruszala (2010) and Sturman (2011). Their advantages, disadvantages and attendant risks are set out in the table below. It is important for organisations and healthcare workers to have considered these in their policies and training before a person is supervised or assisted to transfer or mobilise. This will achieve two sequelae: -

- The decision that has to be made in the event of the patient collapsing/ falling, which inevitably has to be taken instantly will be easier
- Such decisions will be easier to justify or defend in the event of any adverse outcomes

Staff working with persons who are unpredictable, have mental health diagnoses and variable mobility should be alerted and receive specific training on safer intervention of the falling person. Staff must be familiar with the falls risk assessment, and the action (risk reduction measures) to be taken.

Advantages and disadvantages of three options related to level of risk
(After Betts & Mowbray, 2005; Ruszala, 2010; Sturman, 2011)

	Allow person to fall i.e. no intervention	**Re-direct fall and/ or protect from hard surfaces**	**Controlled lowering/ assisted falling**
Risk to person	High, but the risk is reduced if the falls management hierarchy/ falls prevention measures (Attachment 22) is followed to reduce the risk to the person	High, but the risk is reduced if the hierarchy (Attachment 22) is followed	Medium/ high

	to the lowest level reasonably practicable		
Risk to staff	Low	Medium/ high Attempting to redirect when the person is out of reach or falling away from the handler will increase the risk of injury to the handler	High/ very high Attempting to catch when the person is out of reach or falling away from the handler will increase the risk of injury to the handler
When it is appropriate	If handler is more than arm's length away If person falling away from handler Unfit/ pregnant/ older handler or one with a limitation to work placed by OH/ other medical practitioner	If on stairs Harmful object/ surface in the way of the fall (BUT may be able to move harmful object away)	Very rare occasions where person is smaller/ lighter than the handler Handler in close contact and slightly behind person Person falling straight down/ towards handler Handler fit & trained
When it is not appropriate		Unfit/ pregnant/ older handler or one with a limitation to work placed by OH/ other medical practitioner	Person is more than arm's length away from handler Person is larger/ heavier than handler Person is taller than handler Unfit/ pregnant/ older handler or one with a limitation to work placed by OH/ other medical practitioner

In summary, in the table above;

- It is not possible to be prescriptive – a dynamic 'on the spot' risk assessment is vital, as is a sound risk assessment and management strategy (SOP).

- It is safer for the person if they do not fall, but the member of staff is put at risk if s/he tries to prevent it. The risk of the person falling can be reduced by following the hierarchy in Attachment 22.

- It is safer for staff/ handlers to allow the person to fall, but the person is put at risk. The risk for the falling person can be reduced by following the hierarchy in Attachment 22.

NB: More research is urgently required. It would be useful to ascertain how many fallers sustain a serious injury (i.e. more than cuts and bruises) if allowed to fall without intervention, as compared with those where handlers have attempted to intervene.

Criteria for walking a person;

- The person should be able to fully or partially weight bear (Betts & Mowbray, 2005; Ruszala, 2010; Sturman, 2011 - in the checklist in Attachment 22 p33)
- Further information in Sections 5 & 9.

10.i) Allowing a person to fall (Sturman, 2011)

However difficult this will seem for most handlers and family carers the safest approach **is** to allow the person to fall. People can, and do, fall without being injured (DH, 2001).

In order to allow a person to fall;

- The handler will have received training on allowing a person to fall

- If the handler does have a hold of the falling person, s/he should release the hold and move away so the person can fall towards the floor

- It may be possible to move a light obstacle out of the way of a falling person, or prevent an object from causing injury to that person, (e.g. by the handler blocking sharp corners).

10.ii.a) Redirecting a falling person during a transfer (Sturman, 2011)

(Readers are also referred to Ruszala, 2010 Part 5a for further description and illustration).

Some experts advocate that redirection can be used when the handler is in close proximity to the person; for example, when assisting with a M&H transfer where the person is moving from bed to chair. The handler may not have physical contact with the person at the time, but in order to redirect the fall, must be able to reach them (i.e. the handler must be within arms' length of the person).

In order to redirect a falling person during a transfer;

- If the handler does have a hold of the falling person, the hold should be released before redirecting the transfer

- If the transfer is from one surface area to another, the handler may be able to gently push (redirect) the person onto a surface area, for example bed or chair

- If the transfer is close to a solid wall the handler may be able to gently push (redirect) the person onto the wall so that the person can use the wall to slide towards the floor

- If the transfer is close to danger, for example near a fireplace or busy road, the handler may be able to push (redirect) the 'faller' away from the danger

- The handler involved must explain, to the person redirected, the family and any others who observed the redirection, why it was necessary, or it could be misconstrued that the handler pushed the person inappropriately.

10.ii.b) Redirecting a falling person on the stairs (Sturman, 2011) – This activity is for very skilled and experienced staff such as therapists and rehabilitation nurses only (see also Sections 2 and 4).

There are some procedures that are of a sufficiently high risk that they should only be undertaken by staff highly skilled in these methods and this is one of them. See also Controlled lowering (10.iii)

As stated in G21 – Therapeutic handling and rehabilitation:
"Patients should only progress to a flight of stairs following successful preparatory work in the gym, including gym steps. In most cases patients are only taken on a flight of stairs if they require supervision and prompting only. However, in some therapeutic situations a therapist may take a patient on the stairs who requires a greater degree of 'hands-on' assistance, such as facilitation and guidance. In no case should therapists (or delegated handlers) physically lift or take the weight of a leg whilst assisting.

Stair activity spans many therapeutic specialities and patient conditions. In some areas of rehabilitation there are protocols to follow regarding ideal times for commencing stair activity such as in orthopaedics following surgery, and in cardiac rehabilitation.

Climbing steps and stairs is an essential activity for most persons but is often the activity that takes longer to achieve when rehabilitating. The Functional Independence Measure [FIM] (Granger & Hamilton, 1987) is a tool widely used within the field of rehabilitation and can be used to assess and monitor the level of independence on the stairs.

The normal pattern of movement to go up/down stairs may need to be modified and the person taught to go upstairs leading with the unaffected or stronger leg and downstairs leading with the affected/weaker leg.

Steps and training stairs are usually situated in the gym areas of the hospital. An appropriate public flight of stairs, within the hospital, can be utilised for stair work with a person. Stairs selected within the hospital ideally should: -

Have a banister on either side
Not be a busy site

Be accessible in case of an emergency

Steps and stairs can also be selected for rehabilitation purposes, within the hospital grounds or in the community, e.g. as encountered on an occupational therapy 'home visit'.

A risk assessment must be undertaken prior to climbing work to determine the patient's ability and level of assistance required. This must include a careful consideration of the possibility of a fall and a plan of the action to be taken in that event by the therapist.

The action in such an eventuality may be re-direction, or in the case of a very heavy or obese patient, it may be necessary not to intervene. This consideration will include a discussion with all parties and conclude with the patient's informed written consent. Stair work should not be undertaken without going through this essential process.

The following is an example of a suitable patient stair activity, undertaken as part of a rehabilitation programme with therapeutic support:

Preconditions - the patient: -

is medically stable
is able to walk with the supervision or prompting of one therapeutic handler, with or without a walking aid
is cognitively aware
is informed, e.g. can follow instruction and understands
consents to climbing/ descending stairs
wears appropriate footwear
wears appropriate glasses
wears a hearing aid if appropriate

Preconditions - method and precautions: -

there should always be two therapeutic handlers present when accompanying the patient on the stairs, even if the patient requires the supervision of one when walking; the other is on hand in case an emergency situation arises
there should be careful assessment, planning and communication between the two therapeutic handlers on how the person is to be facilitated on the stairs. (See G28 for an emergency evacuation on the stairs)

Special points to consider:

Therapeutic handlers should not stand immediately in front or behind the patient on the stairs as there is a risk of injury if the patient were to fall onto them. The handler should be positioned slightly to the side of the patient. This requires sufficient space to accommodate both the patient and the handler/s (if the latter becomes necessary) without compromising the optimal positioning. Both patient and handler should be able to hold onto a bannister. Sturman (2011) refers to redirecting a falling person on the stairs.

Stairs and obese patients
There are added risks when undertaking stair activity with obese (BMI 30-39.9 – NHS Dudley) and, to a greater extent, very obese (BMI 40+ - NHS Dudley) patients, and contraindications and precautions should be considered. Effective management needs a systems approach. A M&H risk assessment must be completed that is specific to the patient and handlers (Sturman, 2011) and the person must be fully informed and must have given written consent.

Obese patients should be able to weight-bear and be able to undertake stair activity with supervision or prompting. It could pose a considerable risk to the therapeutic handler to redirect an obese patient who is falling on the stairs.

Particular environmental constraints should be assessed prior to stair activity with an obese patient. Stairs should be accessible, (e.g. near a ward and crash trolley), ideally a short flight with a landing part-way up where a chair could be placed. The banister needs to be of a solid construction with space to allow a good coupling of the patient's hand grip. The width of the stairs needs to allow room for the girth of the patient and handler/s.

On discharge, if a patient is unable to manage stairs, alternative methods would include the use of a stair lift, portable stair climber, ramp, or through floor lift. For example: there are powered stair climbers that can be attached to most self-propelling and powered wheelchairs (with a SWL ranging from 130kg – 200kg)" (Couzens-Howard & Watson, G21).

Any handling on stairs would normally be an activity through a rehabilitation or reablement programme supported and supervised by physiotherapists. There may be times where specialised support workers and family carers may assist a person on the stairs.

In order to redirect a falling person on the stairs;

- The handler will have received training and is able to supervise stair activity
- There is a second handler in case of emergency

<u>Ascending the stairs</u>
If a person falls whilst ascending the steps or stairs, it may be possible for the handler to redirect the fall to the upper step, wall or solid bannister. The handler should stand behind the person and slightly to one side. Redirection would require the handler to lean his/her own body weight onto the falling person.

<u>Descending the stairs</u>
In the case of the person descending the stairs, the handler should be in front of the person, i.e. on a lower step, facing the person. The handler descends the stairs backwards so as to better supervise the person. If the person starts to fall towards the handler, the handler should lean their body forwards towards the person to redirect the fall to the stairs behind.

10.iii) Controlled lowering of the falling person (Ruszala, 2010; Sturman, 2011) This activity is for very skilled and experienced staff such as therapists and rehabilitation nurses only. (Readers are referred to Ruszala, 2010 Part 5a for further description and illustration).

It should be emphasized that at no time should the handler 'catch' or 'hold up' the person, thereby taking the person's full weight.

Any controlled lowering is very high risk. Betts & Mowbray (2005), Sturman (2011) referencing Fray (2003), identify that taking the weight of a falling person is high risk for both person and handler (see table, p15 Advantages and disadvantages of three options related to level of risk; and Biomechanics of supporting or holding up a falling person in Section 13). Ruszala (2010) states that handlers should not take the full weight of a falling person because if they are injured as a result, they may be unable to summon help. More evidence and research is required. The best option is to proscribe this activity. If it must be done, the rationale for it must be clearly documented. It is up to each organisation to consider whether they choose to take this risk. It could be construed that a competent handler would not have chosen this method.

It is important that injury to the handler is avoided as this may prevent them being able to care for the person (Resuscitation Council, 2009).

Controlled lowering/ assisting the fall should only be undertaken when:

- The handler has received training and is able to perform this (Ruszala, 2010) – this would involve an assessment of competence and fitness

- The handler is close enough to the person to intervene (no more than arms-length away) with no intervening furniture or objects

- The person is falling towards the handler at the time of intervention

- The person is smaller and lighter than the handler

The procedure is as follows:

- The handler is standing close, to the side and slightly behind the person

– The handler moves behind the person, and adopts a stable position, feet apart with one foot in front of the other, knees slightly bent

- The handler re-establishes their base – takes one step back (for balance)

– If the handler has a hold of the person, the hold is released and, <u>without taking the person's weight</u>, slides their hands to either side of the person's trunk/ hips, fingers pointing down and keeping their arms relaxed

- The handler uses their hands and legs to simulate a funnel or tube, down through which the person is allowed to slide to the floor. The handler's

hands and legs also provide a degree of friction that tends to slow the descent

- The handler should retain a good posture, avoiding over flexing or bending the spine

- On no account should the handler allow the person to sit on, or be supported by, their leg. This could lead to an injury to the handler, e.g. a hyperextension injury of the knee

- The handler completes the manoeuvre by allowing the person to lie down in order that their condition may be checked

- As stated above, it should be emphasized that at no time should the handler 'catch' or 'hold up' the person, thereby taking the person's full weight.

11. Handling equipment

Persons with variable mobility should have a specific handling plan that makes it clear when it is appropriate to use manual or mechanical assistance.

Some persons may need a hoist and a walking vest as part of their rehabilitation or reablement programme. Staff should be trained on how to manage the falling person when using a hoist and walking vest.

Some standing and raising aids (stand aids) are designed to facilitate a walking transfer. Usually these would be assessed and recommended as part of a rehabilitation or reablement programme. Staff should be advised on how to manage the falling person when using the stand aid and standing sling.

Staff need to know the SWL of any handling equipment. Equipment should be serviced to comply with LOLER (HSC, 1998) and PUWER (HSC, 1998), and staff should inspect equipment prior use.

Handlers should check that every walking frame, crutch and stick has all ferrules present, level and intact and that the frames, crutches and sticks are adjusted to the correct height for the person.

Persons with dementia may be better suited to walking frames with wheels. If sticks are used they can get lost and may become a danger to others in units where there are a number of people, if they end up on the floor (Oddy, 2011).

Staff assisting a person following a rehabilitation or reablement programme may be using a transfer belt. The belt should be secure and fit snugly around the person. It should not be used for lifting or supporting the weight of the person. When using belts the handler must take care that they are using a hold that can quickly be released; there can be a temptation for the handler to tighten his/her grip in such situations and this adds to the risk of injury.

12. Other equipment and furniture

Persons at risk of falls should have access to variable height furniture, e.g. an adjustable height electric profiling bed, a rise and recliner chair to facilitate movement and reduce falls.

Bed rails – should be used appropriately following the safety rail risk assessment process (HSE, 2012).

'Low level' profiling beds – should be used for persons with a history of falling out of bed.

Crash/ tumble mats or modular fall mats – are used adjacent to the person's bed to reduce the impact of any fall. Mats are designed to be wiped clean and can fold away for easy storage when not in use.

Assistive technology – e.g. bed sensors, pressure pads and chair alarms may be used to enable safeguarding and monitoring of persons identified at risk of falls.

Bed sensors – are fitted onto a divan or profiling bed and connected into the organisations call system. The bed sensor will alert staff when the person attempts to transfer from the bed.

Chair sensors – are fitted under a cushion in a hospital chair, recliner chair or wheelchair and connected into the organisation's call system. The chair sensor will alert the staff when the person is trying to transfer out of the chair.

Pressure pads – these are small pads positioned on the floor adjacent to the person's bed or chair or within a doorway and connected to the organisation's call system. The pressure pad is activated when the person steps onto it.

Each area should have access to transit wheelchairs, that are either person specific or from a pool. It is recommended that wheelchairs have arms that can be lowered, folded away or removed for ease of transferring the person. Similarly, footrests should be either foldable, or slide away from the person's feet when transferring on or off. Wheelchairs should be regularly maintained.

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

Any intervention with a person who is falling has been identified as high risk (Ruszala, 2010; Sturman, 2011). Risk can be difficult to quantify because persons have variable mobility and it is important for staff to balance the need to maximise independence through rehabilitation and reablement but at the same time address the potential risk of falling. Persons with dementia and other mental health problems may present as a higher risk compared to the ambulant person without such a history.

Risk can be reduced successfully through robust multifactorial risk assessment of intrinsic, extrinsic and behavioural factors and implementing appropriate control measures.

Biomechanics of catching a falling person (Sturman, 2011)
"Work undertaken by Fray (2003) calculated forces on the spine, when catching a person, will exceed safe levels e.g. a handler catching a person weighing 53kg is likely to experience a force in the region of 5250 Newtons (525kg) *in the lower back. Fray in Smith (ed) HOP5 (2005) identified that catching a falling person is likely to put the employee at risk of musculoskeletal injury".* There is further information on the biomechanics of catching a falling person in Betts and Mowbray (2005) and Sturman (2011). From these it will be clear that it is never safe for the handler to catch a falling person.

14. Alerting the moving and handling team

The M&H team will work with the organisation's falls advisor/ team in the following four roles relating to the falling person:

The first role of the M&H team is to work with the falls advisor/s to develop policy and with frontline staff to set up and embed systems designed to prevent falls, utilising risk assessment and equipment.

In connection with the first role, the M&H team should also be involved in the planning and commissioning of new builds, refurbishments/ adaptations/ changes of use of areas in order to help 'design out' potential problems and hazards in the environment or systems by utilising an ergonomics approach.

The third role is to train staff in the three approaches – as described in Section 10.

The fourth role (in common with the role described in G23-26) is to investigate falls as adverse incidents. This role will need to be extended to examination of the recovery/ removal of the person if, for some reason, this was not achieved according to the agreed procedure – which is in itself a serious untoward incident.

15. Referral to and involvement of other specialists

People will fall in both community and hospital settings.

Those living in the community and identified at risk of falls should be referred to a falls clinic for specialised investigation and assessment. Those in hospital should be referred immediately to the falls advisor/ team.

If a person has been injured as a result of a fall in the community the person should not be moved; the emergency services should be contacted for assessment and treatment of the person.

If a fall occurs in a hospital setting, a medical assessment will be required, as identified by NPSA (2011). See also G23-25.

Other specialists will be contacted as necessary e.g. the MDT as it may be that assessment is needed from a physiotherapist, occupational therapist, dietician, pharmacist or psychologist.

16. Transport (internal and external)

To reduce the risk of falls, persons transferring a long distance within a building or outside a building should be transferred in a wheelchair.

17. Discharge and transfer planning

On discharge, transfer planning is essential.

It is essential that the person is accommodated appropriately and has all the relevant equipment recommended in the falls assessment. Any discharge or transfer should be planned and co-ordinated with the agreement of all parties, and be fully documented. Assessments and care plans should accompany the person (MHOR, 2004, para 130).

Some persons identified at risk of falls, or following a fall, may be going into residential care. The discharge team should work closely with the residential home to support provision of assistive technology and M&H equipment to reduce the incidence of falls.

If being discharged from hospital, the person may need a referral to the GP, community social worker, community falls team, occupational therapist and/ or physiotherapist. *In particular*, if being discharged from A&E after an

unexplained fall, a referral should be sent to the community falls team as well as the fracture clinic, if appropriate.

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Attachment 22 – falls management hierarchy/ falls prevention measures for the falling person

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Preamble
Falls screening (Verification evidence p1; Sec.6 p11; Sec.9 p12, 13)
Falls risk assessment (Sec.9 p12, 13)
M&H risk assessment (Sec.9 p13; G21 – Sec. 9 M&H assessment, p13-15)
Dynamic 'on the spot' risk assessment (Sec 2 p9; Sec 9 p14)

Oxford scale (Lee, 1978) Measurements of muscle strength and function Categories 4 & 5 are required for a successful independent stand by the person	0 = no contraction 1 = flicker of contraction 2 = contraction when gravity eliminated 3 = muscle contraction against gravity 4 = muscle contraction against gravity and some resistance from handler (with care) or against a weight attached 5 = normal

"Falls, resulting from trying to go too far, or too fast, discourage the person from trying to mobilise again" (Holmes, 1998). Falls can occur when a person is transferring from one surface to another, on standing up, and when mobilising.

There should be a comprehensive documented **falls management hierarchy**, showing clear progression, identifying what equipment is available/ to be used for reducing risk to both person and handlers. In this way progression can be made whilst maintaining a high level of safety for person and handlers.

Appropriate equipment should be used and this may include:

- a sling hoist where the person is unable to weight bear
- a standaid type hoist for situations where the person can weight bear but is unable to step
- a walking hoist/ overhead tracking (OHT) in which, if a person stumbles the walking harness will support the weight
- a lift walker in which the person is allowed more freedom of movement but if s/he stumbles, the hoist via its through leg supports, prevents the person falling
- a wheeled walking frame giving the person more independence and confidence whilst giving some stability. One handler to follow behind with a wheelchair until the person is fully competent.
- crutches which allow for quicker walking and a higher level of mobility, independence and confidence
- tripods/ quadrupods giving the person some stability where the progression would be from two to one
- walking sticks where again the person can be progressed from two to one, indicating progress and renewed confidence in the person and her/his walking ability
- OHT in conjunction with vest/harness when using a treadmill or stairs.

Checklist to be carried out before progressing to any weight-bearing activity	
Element	Check method
Ability to understand and follow instructions	Check records and discussion, including careful questioning
Informed consent	Verbally, and with written agreement of person, and family if appropriate
Appropriate clothing and footwear	Well-fitting clothing and secure low heeled footwear
Sitting balance	Person able to sit unsupported – a person that could safely be left sitting unsupported Controlled check for dynamic balance - person able to reach outside the base of support to the front and sides without overbalancing - able to lift each leg off floor independently - if able, cross one leg over the other at the knees
Body (trunk) strength and balance	Seated person - able to resist gentle but firm displacement by the handler
Upper limbs strength and function	Person able to bend and straighten elbow against gravity and some resistance from handler (minimum Oxford scale 4)

	Person able to push up from chair using upper limbs, raising his/her bottom off chair
Lower limbs strength and function	Hip flexors – person able to raise knee (minimum Oxford grade 3) Knee extensors (quads) – person able to raise foot to straighten knee (minimum Oxford grade 3) - Person able to raise foot to straighten knee against some resistance (minimum for standing Oxford grade 4) Knee flexors – person able to bend knee against resistance of handler Ankle and foot – person able to move foot up and down, in and out
Flexibility	Can be checked whilst assessing strength, depending on medical condition e.g. flexibility is lost in persons with oedema, also vascular dementia
Abnormalities of tone, response to touch and pain	Can be checked whilst assessing strength

A falls management hierarchy/ falls prevention measures should include the following elements:

Person's name	Comment/ achieved & date
Details	
Activity e.g. sit -> stand -> walk	
Relevant details of above check list carried out	
Purpose	
Clinical reasoning	
Number of handlers and role of each handler	
Aids/ equipment required	
Has the person walked before? When?	
Is the person tired?	
Is the person stressed? e.g. anxious to go to the toilet (in which case wheelchair there and walk back)	
Method – Person able to **stand** by: - Moving to front of chair - Placing hand/s at front of chair arms - Moving feet back (1 may be further back than other) - Leaning forwards - Looking ahead - Pushing down on hands and feet	

- Raising bottom off chair - Able to move hand/s from chair to walking frame/ other If unsafe, practise with harness + hoist/ suitable stand aid/ lift walker	
Method – Person able to **step** by: - Moving 1 leg forwards, bilaterally weight bearing, then same leg back - Repeating with the other leg If unsafe, practise with harness + hoist/ suitable stand aid/ lift walker	
Method – Person able to **walk** by: - Using walking frame/ other (see list above) correctly and safely If unsafe, walk with harness + hoist/ suitable stand and walking aid/ lift walker	
Signature of assessor:	Date:

The falls management hierarchy/ falls prevention measures should form a part of the therapeutic handling treatment record. The normal details of person's name, date, therapeutic handler/s name/s would of course also be included in the record, and should be available to all who will be mobilising the person. It should be updated as the person's condition changes/ weekly if no change.

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 G22 is:**

The prevention of falls and the manual handling management of the falling person
Systems are in place to: (1) prevent falls where possible
(2) manage the falling person

- **Skilful M&H is key**

- **Special points for G22 are: -**
  - **Staff and handlers should be prepared to make instant decisions when observing a person who is about to fall or is in the process of falling, and take appropriate action**
  - **Organisations must make every endeavour to a) prevent falls and b) manage the falling person**
  - **Organisations should**