G30	Standard	Equipment breakdown

The Standard

Systems are in place to cover **equipment breakdown**, e.g. hoist and bed failures. Specifically this means –

a) In acute/hospital settings hoist repair/replacement should be within 2 hours
b) In community settings, domestic environments, and in the case of isolated MH and LD units, hoists should be repaired/replaced within 4 hours

Justification

Rationale

Equipment can fail and if there is no ready replacement, patients/service users will be put at risk and care compromised, therefore repair/replacement must be prompt to avoid a hiatus in the continuity of care.

Equipment should be evaluated as part of the procurement process to ensure that it is fit for purpose. The choice of equipment should take into account (amongst other things): - reliability, company after sales service and 'back-up' features, such as an emergency lowering facility on a hoist.

Timely repair, or replacement of equipment that has to be taken out of use, is essential. Planning for these contingencies is therefore vital, as they are reasonably foreseeable events.

Authorising Evidence

HSWA (1974); Health and Social Care Act (2008) (Regulated Activities) Regulations 2010; Human Rights Act (1998); MHOR (1992) as amended 2004; LOLER (1998); PUWER (1998)

Links to other published standards & guidance

CQC (2010); NPSA (2008); Edwards v NCB (1949); HSE (2010); HSE (2011); Knott v Newham Healthcare (2002); Wounds International (2010)

Cross reference to other standards in this document

D1–D11, D13-15

Appendices

7,9,10,21,22,27

Verification Evidence

- Faulty hoists are repaired or replaced immediately, in accordance with the standard above.
- Systems are in place for maintenance and servicing.
- *All* equipment is inspected by a competent person on introduction and thereafter six monthly, annually or further to a thorough examination as set out by the company supplying the equipment. In the community all equipment must be inspected before it is issued/re-issued.
- In the case of lifting equipment or an accessory for lifting people, *all* equipment is inspected by a competent person 6 monthly and maintained annually (LOLER, 1998, Reg 9).
- All staff are trained to check equipment daily and before use.
- Robust procedures for the prompt replacement of essential items are in place and staff are aware of these arrangements.
- Audits and incident reports are used to monitor equipment reliability performance.

G 30 Protocol - Equipment breakdown

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1. Introduction and background

All equipment is subject to failure. Employers have a responsibility to ensure that equipment is maintained and repaired in line with regulations e.g. PUWER (1998) and LOLER (1998). Strategies must be in place to manage the immediate effects of failure. Both staff and patients/service users (persons) must be protected from the risks of injury in such a situation.

2. Management, organisation, supervision and support

The organisation must have suitable arrangements in place in order to ensure that staff employed for the purposes of carrying on the activity are appropriately supported in relation to their responsibilities, to enable them to deliver care and treatment to persons safely and to an appropriate standard (Health and Social Care Act 2008 (Regulated Activities) 2010 – (HSCA 2008 (RA) Regs 2010) Reg 23; CQC 2010, Outcome 14).

The organisation must have procedures in place for dealing with emergencies which are reasonably expected to arise from time to time and which would, if they arose, affect, or be likely to affect, the provision of services, in order to mitigate the risks arising from such emergencies to persons (HSCA 2008 (RA) Regs 2010, Reg 9: CQC, 2010, Outcome 4).

Employers must provide an appropriate equipment service that includes timely repair/replacement. They must make suitable arrangements to protect persons and others who may be at risk from the use of unsafe equipment by ensuring that equipment provided is properly maintained and suitable for its purpose; and used correctly. They must also ensure that equipment is available in sufficient quantities in order to ensure the safety of persons and meet their assessed needs (H&SCA 2008 (RA) Regs 2010, Reg 16; CQC 2010, Outcome 11).

This can be provided in-house or by external contractors. Contracts must be monitored for compliance to the agreed standards.

SOPs must be in place, and all staff must be adequately trained and supervised to follow procedures for reporting failed/faulty equipment. In the domestic environment care workers and informal carers/family members must be given information and instructed regarding reporting defects.

Arrangements must be in place to enable repairs or replacement within the standard time-frame set by the organisation. Three examples are provided below to illustrate the implementation of this safe system of work: -

a) In acute/hospital settings, an equipment store should be accessible 24/7. Alternatively perhaps, the MH training room equipment could be utilised.

b) Community equipment stores should be accessible 24/7 and suitable transport made available.

c) An isolated unit may need to carry a spare hoist, swivel turner etc. Staff need to know how to access a spare bed, mattress (microscopic pathological changes were noted with a pressure of only 60mm Hg after 1 hour – Wounds International, 2010).

Learning should be gained from adverse incident reporting and follow-up investigation.

3. Staffing levels

The organisation must ensure that there are sufficient numbers of suitably qualified, skilled and experienced staff employed (HSCA 2008 (RA) Regs 2010, Reg 22; CQC 2010, Outcome 13).

Maintenance and repair staffing levels must be sufficient to meet the repair and replacement standards, as well as carrying out routine/planned maintenance.

4. Staffing competencies

Nursing and care staff must be competent (MHOR, 2004, Reg 4(3)(c), paras 191, 199, Appendix 1, para 2(b)(iv)) to recognise defective equipment and take appropriate action, including reporting. They should know how to make contingency/short-term arrangements, to manage the situation when equipment is temporarily unavailable, whilst maintaining quality and safety so far as is reasonably practicable (SFAIRP). (See also Sec 13). They should also know that these arrangements should not be allowed to continue for an unreasonable length of time.

Maintenance and repair staff must be competent for their role.

5. Environment

Storage within units/wards and where possible, in other settings, must be adequate to permit stowage and retrieval of equipment without damage.

In hospitals, central equipment stores are desirable if not essential, together with equipment maintenance facilities, as part of the electro bio-medical equipment department (EBME). These facilities must be properly equipped. In the community similar services and facilities are required.

The environment and equipment impact on each other, sometimes to the level of damage to the equipment (PUWER, 1998, Reg 6). Investigation and audit of equipment failure should take this into account.

6. Communication and information systems

All staff must be aware of the procedures for breakdown situations, and these must be documented and readily available in departmental files and/ or attached to the equipment.

If equipment is unable to be accessed, a risk assessment of the risks to the person (e.g. the complications of bed rest) must be carried out (see Sec 2(c).

Equipment service personnel must be easily contactable, 24.7 (this would include weekends).

7. Treatment planning

In some cases it may be necessary to modify care whilst awaiting repair/replacement of equipment, e.g. the person may have to be cared for in bed for a limited period. (See also Sec 2(c)). In this case a RA will need to be carried out (MHOR, 2004, paras 53, 54) and it is important to ensure the requirements of the Human Rights Act (1998) are not breached. The organisation has a duty to protect persons, and others who may be at risk, against the risks of inappropriate or unsafe care and treatment (HSCA 2008 RA Regs 2010 Reg 10; CQC Outcome 16). Modifying care could be construed as providing inappropriate care as the person could be put at risk by the use of alternative, or no, equipment. The organisation must also ensure that each person is protected against the risks of receiving care or treatment that is inappropriate or unsafe (HSCA 2008 RA Regs 2010 Reg 9; CQC 2010 Outcome 4). It may be necessary to consider hiring equipment to reduce the risks to the person and staff if the usual equipment cannot be used.

Audit is necessary to ensure all equipment is working, and the whereabouts of alternative equipment in the event of equipment breakdown. Where equipment is shared, staff may be tempted not to use it if it is already in use in the 'other' area. A nurse was injured when using a hoist shared with another ward due to it not always being available and often being inoperable. This was because either it had broken down or because the slings were being cleaned. The judge found that no real steps were taken to reduce the risk of injury to their employees to the lowest level reasonably practicable (Knott v Newham Healthcare NHS Trust, 2002).

8. Moving and handling tasks required

Complications arising from the lack of appropriate equipment, as in the case of breakdown, rendering care tasks difficult or hazardous may include:
- transferring people from height-adjustable equipment such as a bed that no longer functions

- dealing with a person who has fallen out of a sling – wrong type or size (HSE, 2011)
- a bed where the hoist base cannot fit under due to bed height
- a hoist that cannot be raised high enough to put the person safely on the bed
- a hoist that breaks down in the middle of a transfer – staff/ carers must know where the emergency lower system is, and how it works. In the case of persons using the hoist themselves, the person must be able to summons help (BS 10535 (2006) in HSE, 2010)
- using a hoist and sling that are incompatible (HSE, 2011)
- checking to ensure there are two different emergency lower systems
- moving a person into a seated position on a divan bed.

9. M & H assessment

Generic assessments and SOPs should identify the appropriate level of equipment provision and this should take into account equipment failure. Following equipment breakdown, although each situation will require a dynamic risk assessment, all staff should be able to problem-solve or know where to go for advice. (Also see sections 7 & 8).

10. Methods and techniques

Careful risk assessment and planning should reduce the risks and enable care of an acceptable level of quality even when the most appropriate equipment is temporarily unavailable. During this time care may need to be modified (see sections 7, also 8 & 9). The situation and the risks will have to be controlled and managed until normal service and optimal care can be resumed (MHOR 2004).

11. Handling equipment

Staff must be aware of the location of relevant equipment and how to access it, especially out of hours.

12. Other equipment

All equipment must be marked with its safe working load (SWL) (LOLER, 1998). Staff must check this against the person's weight (MHOR, 2004, Reg 4(1)(b)(iii), which must be regularly monitored and updated, especially when the person's weight is close to the SWL.

Special care is needed in the community where weights are likely to be estimated. Equipment should be available to weigh the person. Some hoists have scales inbuilt, or the person can be hoisted onto scales, or, for 'coathanger' type sling support hoists there is an attachment of a hoist weigher scale
http://www.thelivingcentre.co.uk/products/Marsden-Hoist-Weigher-Scale.html?gclid=CPLZqb_p1LoCFQ7LtAodg3AA-Q
For clients who need to be weighed in the community or their own home, some hoist companies will provide a weighing service. Some hoist companies also have scales the person can be wheeled onto.

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.

It is essential that the risk is assessed and quantified when the appropriate equipment is unavailable. In such situations risks may be very high or extreme.

Risks may be reduced SFAIRP by proper evaluations, equipment trials and relevant training.

14. Alerting the M&H team

The specialist knowledge of the M&H team may be required when equipment has failed. However, SOPs should have been devised in anticipation, with the help of the M&H team.

15. Referral to and involvement of other specialists

The expertise of other departments and services may be invoked, proactively, as part of the planning process, or reactively when a failure occurs. Referral may be made to EBME, Clinical Governance, Ambulance, Fire, Security, Suppliers, Estates and Facilities; and reporting to MHRA, Incidents, and Legal and Insurance departments.

16. Transport

Where equipment cannot be repaired in-situ, it will need to be transported within the facility or externally to a place of repair.

17. Discharge and planning

N/A

18. References

Health & Safety at Work etc Act (1974) Ch 37, sec 2(1) & (2), 3, 7

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HSC (1998) *113 Safe use of lifting equipment Lifting Operations and Lifting Equipment Regulations 1998 ACOP and Guidance* Sudbury: HSE Books Regs 4,5,7-10 in particular 9(3)(a) & (b)

HSC (1998) *L22 Safe use of work equipment Provision and Use of Work Equipment Regulations 1998 ACOP and Guidance* Sudbury: HSE Books Regs 5-9

HSE (2004) *L23 Manual handling Manual Handling Operations Regulations 1992 (as amended) Guidance on Regulations* Sudbury: HSE Books paras 48, 51, 53, 54, 176, Reg 4(1)(b)(iii), 4(3)(c), paras 191, 199, App 1 para 2(b)(iv)

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Further reading

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HSE (2012) *How the Lifting Operations and Lifting Regulations apply to health and social care Health Services Information Sheet No 4(rev 1)* Sudbury: HSE Books www.hse.gov.uk/pubns/hsis4.pdf Retrieved 31.10.13

HSE (undated) *Thorough examinations and inspections of lifting equipment* www.hse.gov.uk/work-equipment-machinery/thorough-exminations-lifting-equipment.htm Retrieved 31.10.13

HSE (undated) *Moving and handling equipment* www.hse.gov.uk/healthservices/moving-handling-equipment.htm Retrieved 31.10.13

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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 G30 is:**

Systems are in place to cover equipment breakdown, e.g. hoist and bed failures

- **Special points for G30 are: -**
  - **Systems are in place for maintenance and servicing**
  - ***All* equipment is inspected by a competent person at least annually**
  - **In the case of lifting equipment for lifting people, *all* equipment is inspected by a competent person 6 monthly**
  - **All staff are trained to inspect equipment daily and before use**
  - **Robust procedures for the prompt replacement of essential items are in place (with specified time-frames) and staff are aware of them**