G35	Standard	Moving and handling (M&H) issues in situations involving chemotherapy

Systems are in place to cover moving and handling procedures in **chemotherapy**.

Justification

Rationale

The main areas of concern are staff working postures and repetitive manual handling operations. Whilst on the surface this type of environment may appear to be low risk for M&H hazards, the reality may be very different. For this reason it is important that a generic risk assessment is undertaken.

Authorising Evidence

HSWA (1974); MHOR (2004)

Links to other published standards & guidance

Hignett & McAtamney (2000) & (2006); NPSA (2008); Ruszala et al (2010); UK Resuscitation Council (2008)

Cross reference to other standards in this document

A10; B7,8,12,13; C1-4; D6-9; F1; G4,8,14,15,17,40; H2

Appendices

4, 9, 10, 13, 14

Verification Evidence

- requirements for compliance to achieve and maintain this standard

- An agreed approach, informed by evidence-based best practice, documented in the M&H policy, disseminated to all staff and embedded within the organisation
- Risk assessments (for M&H) that are 'suitable and sufficient', robust and balanced
- Safe systems of work and standard operating procedures
- Individual staff assessments where necessary – readily accessible and regularly reviewed
- 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

G35 Protocol - Moving and handling (M&H) issues in situations involving chemotherapy

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1. Introduction

Chemotherapy is defined as the use of chemicals, either natural or synthetic, used to inhibit the growth of malignant or cancerous cells (Nijjar, 2010). Antibiotics can be classed as chemotherapy as they essentially kill or inhibit the growth of other micro-organisms.

The administration of chemotherapy is a very common practice both in the hospital and community environment.

There can be issues around M&H the patient in receipt of chemotherapy since some patients may be quite unwell as a consequence of their presenting condition or side effects of the treatment.

It must also be borne in mind that patients undergoing chemotherapy may be receiving extensive courses of other types of treatment including radiotherapy or surgery.

Palliative chemotherapy has been shown to give better symptom outcomes for patients experiencing muscle weakness and therefore this in itself can aid mobility in the patient, with consequences for the M&H assessment (Schonwetter, 2006).

The main M&H problems encountered in this area are those associated with repetitive strain injury and postural stress.

Upper limb repetitive strain may not be as problematic since different systems have evolved and more drugs are given via a drip/ drip regulator/ syringe driver which are a means of mechanical administration.

Static working postures will therefore also be reduced. Good positioning of staff whilst giving the drug is important.

This protocol may be read in relation to other protocols which may also have a bearing on similar issues involved such as palliative care (see G17).

2. Management, organisation, supervision and support

2.1 Evidence-based practice

All staff have a responsibility to ensure that their M&H practice is evidence-based. The normal line management processes of managing staff would apply with M&H policies as well as others.

2.2 Multi-professional input
The organisation of moving and handling activities would often occur in the context of multi-professional input into the patient's M&H and therapeutic care-plans.

2.3 Link workers
Link workers can have a role on the units in respect of supervising activities and they provide a valuable resource.

3. Staffing levels

The generic risk assessment will detail the number of staff required to do the task.

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

Each chemotherapy unit should have a generic handling plan relating to staffing competencies. Those patients who are non-ambulant should have a specific handling plan.

Novice – will require extensive supervision in providing care under the generic and specific patient care plans.

Advanced beginner – would demonstrate a degree of autonomy in applying M&H policies to aspects of care but would still need some supervision.

Competent practitioner – will have been in post for some years and will be competent in both M&H patients and capable of assessing and supervising others, in the unit.

Proficient practitioner - will be proficient in M&H patients having chemotherapy for the entire shift. The proficient practitioner may be a M&H link worker who has undertaken further M&H training.

Expert practitioner – will be a leader in the unit and will consider the issues around M&H policies with a view to improving the experience of chemotherapy patients when moved and handled.

5. Environment

5.1 Using cytotoxic drugs
M&H considerations must take account of handing and administering cytotoxic agents. Any spillage as a result of poor M&H techniques can be hazardous.

5.2 Space
There must be sufficient space available for the bed/ trolley/ chair, weighing scales, and the trolley containing the drug trays.

There must also be sufficient space available for the safe storage of equipment.

Prior to administering medication the patient is weighed and sometimes height is measured and recorded. The scales should be on wheels with a weighing seat if the patient is non-ambulant.

Equipment such as standaids may prove valuable for weighing and height measurement in this respect. Swivel turners with upright handles should be available as needed. (See also section 11).

5.3 Using equipment to assist in making the environment safe
Medication may be bought to the bed in a tray on a trolley but care must be taken when moving the trolley around the unit to avoid accidents/ spillage.

5.4 The importance of considering the environment when positioning patients
See 8.3

5.5 The environment and the disposal of sharps
The sharps and cytotoxic disposal bin must be positioned close to where the technique is being carried out so that the discarded products can be safely disposed of with one movement without over-reaching.

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

Information sheets given to the patient prior to admission should contain a statement on M&H and what the patient may expect. Information given to the patient verbally can reinforce this. Rigdon (2010) discusses barriers in the readiness of older adults who are undergoing chemotherapy to receive information and how those barriers can be overcome.

7. Treatment planning – goals, etc.

These may be curative, life prolonging or palliative. The same principles apply regarding the M&H assessment and implementation for any treatment goals. This protocol can be read in conjunction with the palliative care protocol (G17) where necessary.

8. Moving & handling tasks

These are similar to any other patient handling task. The types of situations which may require consideration of M&H issues in chemotherapy are:

8.1 M&H Assessment (see also section 9)
This would be similar to any other M&H patient assessment. It will guide the health professionals who may need to move patients in order to ascertain the extent of their condition and plan treatment. The patient must be weighed to establish the amount of chemotherapy therefore weighing scales may need to be brought to the patient, and the patient may require assistance to transfer.

8.2 Handling and positioning the patient for diagnosis and treatment
This would include handling the patient on the diagnostic X-ray table.

8.3 The importance of considering the environment when positioning patients
In the administration of intrathecal chemotherapy (the medical practitioner would be involved) good patient positioning is paramount. The technique of intrathecal chemotherapy must be considered within a generic MH risk assessment.

Some procedures such as the above require the patient to be positioned on their side, as for a lumbar puncture; or sitting, leaning forwards supported on pillows. For supporting patients in a forwards sitting position there is equipment available, such as the Newton Work Positioner from Slingsby, which has been found to be safe and effective in limiting the patient's movement.

Chemotherapy may be administered into the bladder via a cystoscope, or a urinary catheter. The patient would need to be placed in a comfortable, semi-reclining position.

8.4 Rehabilitation
This can occur in a seriously ill patient who is receiving/ has had chemotherapy. Fatigue and motivation can be an issue with this type of patient (Parsaie et al, 2000; Thanasoip et al, 2005). Mobilisation is important and this will have several M&H implications.

Treatment consisting of chemotherapy can contribute to the onset of movement impaired syndromes of the shoulder and arm e.g. in breast cancer treatment. Evidence supports the effectiveness of physiotherapy interventions in the management of these symptoms (Wise et al, 2009).

9. Moving & handling assessment

The generic risk assessment (MHOR, 2004) will detail the number of staff required to do the task, the training necessary for that task, the equipment to be used by staff and the methodology to be used in handling the patient. Generic risk assessments should be reviewed regularly and audited to ensure they are being utilised and are effective.

The practitioner needs to use critical thinking skills whilst undertaking aspects of a procedure where M&H is involved (see also 10.2)

10. Methods, techniques and approaches

These should all be detailed in the generic assessment.

10.1 Special precautions
In chemotherapy care, the special precautions for M&H are important e.g. the preparation and handling of drugs. Protective clothing, aprons and equipment are vital (see also section 12).

10.2 The use of critical thinking skills
The practitioner needs to use critical thinking skills whilst undertaking aspects of a procedure. The patient's condition and hence M&H situation can change very quickly as a result of the patient's level of pain or the intake of drugs to combat this – see the example on 'movement-induced pain' in Engstrom, 2008.

Analgesia should be given prior to M&H patients who are undergoing chemotherapy in anticipation of 'movement-induced pain'. This may occur with malignancies that have spread to bone, most commonly in breast, prostate, lung and kidney cancers.

10.3 Raising awareness that the care of patients with side-effects can have implications for M&H
In chemotherapy care the patient may suffer nausea and vomiting, gastro-intestinal disturbances, allergies and hypersensitivity reactions (anaphylaxis is a potential risk). All these will have implications for M&H.

11. Handling equipment

11.1 Having the necessary equipment to hand
A wide range of equipment should be available as needed, including M&H equipment (standaids and Swivel turners with upright handles for assisted transfers), particularly for heavier patients. (See G 15 – bariatric M&H).

11.2 Safe working load
The safe working load of all equipment is important as it is in any other M&H situation.

11.3 Use of a generic assessment
The member of staff responsible for carrying out the generic assessment is responsible for ascertaining the availability of appropriate equipment. Where such equipment is not available local protocols for obtaining equipment must be followed.

11.4 Obtaining equipment quickly when necessary
There must be provision for equipment to be obtained quickly, and moved to the place of use promptly, when the need arises.

12. Other equipment and furniture

Patients in a chemotherapy unit may have fragile skin (due to steroid therapy). When providing furniture, sharp edges and pointed corners should be avoided. Bed mattresses and chair seats should have pressure reducing/ relieving properties.

Protective clothing, aprons and gloves will be required (see also section 10.1).

13. Risk rating for each task

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.

The generic risk assessment will detail the amount of risk for each task. An example of a high risk M&H task would include dealing with patients who react to a drug (anaphylactic shock).

If working postures and repetitive movement are identified as a problem, the use of RULA (Hignett & McAtamney, 2006) and/ or REBA (Hignett & McAtamney, 2000 and 2006) or similar musculoskeletal assessment tools will assist in reducing risk.

14. Alerting the Moving & handling team

The support of the M&H co-ordinator can be accessed in an advisory capacity. As most admissions to the chemotherapy unit are planned, the M&H team should be notified if there are special requirements prior to admission e.g. heavier patients.

15. Referral to and involvement of other specialists

Professionals from other specialisms should be involved at the generic risk assessment stage and in on-going reviews during discussion of M&H issues with particular patients. This facilitates seamless care for the patient and also shows an appreciation of the roles of other team members with regard to M&H issues.

Other specialists who may be involved could be infection control, tissue viability and palliative care.

16. Transport (internal and external)

Patients may be transported with intravenous chemotherapy in progress. A nurse should be present so that the intravenous infusion can be monitored and the comfort of the patient ensured.

Patients may need to be transported to and from chemotherapy clinics in ambulances or other vehicles (car/ taxi). If not ambulant, stretchers/ wheelchairs will be used.

17. Discharge and transfer planning

There may be issues in M&H that have been identified or are likely as a result of the chemotherapy treatment. Therefore liaison with agencies that will be involved in the patient's care once the treatment has been finished (or before if necessary) must be undertaken. Clear and concise information is important.

Conclusion

This protocol has considered the M&H factors related to working in a chemotherapy unit. Whilst on the surface this type of environment may appear to be low risk for M&H hazards, the reality may be very different. For this reason it is important that a generic risk assessment is undertaken.

18. References

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Further reading

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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 G35 is:**

Systems are in place to cover moving and handling procedures in chemotherapy.

- **Skilful M&H is key**

- **Special points for G35 are: -**

  - **The main risks are to the nursing staff and are related to: -**
    - **Sub-optimal working postures**
    - **Repetitive strain to the small joints and muscles of the hand**