G27	Standard	Hydrotherapy pool moving and handling (M&H)

A safe system of work is in place for **a hydrotherapy pool,** including dealing with **a collapsed person.**

Justification

Rationale

Hydrotherapy/ aquatic therapy is an important treatment for many people with short and long term disabilities. The aim is to maximise physical, physiological and psychological function. Due to the nature of the pool environment, there are additional moving and handling risk factors to be considered when planning care; these are increased when dealing with emergency situations. Emergencies can occur inside and outside the pool and are not exclusive to clients; staff, volunteers or visitors may have an accident or injury. Appropriate provision must be made to cover all such eventualities. The speed of response that is required should not compromise safety.

Authorising Evidence

HSWA (1974); LOLER (1998); Health and Social Care Act 2008 (Regulated Activities) Regulations (2010); MHSWR (2000); MHOR (2004); PUWER (1998)

Links to other published standards & guidance

Alexander, P & Johnson, C (2011); APCP (2010); Betts, M & Mowbray, C (2005); CSP (2006); CSP (2007); CSP (2008); NPSA (2008); Resuscitation Council UK (2009); Ruszala et al, 2010

Cross reference to other standards in this document

A11, 13; B1, 9, 12, 13; C1-4, 11-13; D1-6, 11; F1-7; G~~9~~,10, 11, 14-16,19, 21-26, 28, 30

Appendices

5-7a, 9, 10, 13, 14, 16, 17, 21, 25-27

Verification Evidence

- requirements for compliance to achieve and maintain this standard

- Generic assessments are carried out and developed into protocols including a collapse in the pool or surrounding area, which are implemented, with staff trained to the required level of competence. These are regularly reviewed.
- Individual risk assessments and handling plans are provided which are easily accessible for each person.
- Clear emergency evacuation plans are established for clients with known conditions such as epilepsy and diabetes.
- Emergency evacuation plans are prepared and practiced for emergency collapse in the pool and surrounding area.
- All staff are trained to the level of competence required and there is suitable and sufficient local supervision.
- Audits and incident reports identify equipment available and control measures for high risk tasks.

G27 Protocol - Hydrotherapy pool M&H

Authors: Pat Mitchell, Vanessa Arthur

1. Introduction and background

Hydrotherapy or Aquatic Therapy can be defined as follows:

"A therapy programme utilising the properties of water, specifically designed by a suitably qualified Chartered Physiotherapist for an individual to maximise their level of function whether physical, physiological or psychological" (Aquatic Therapy Association of Chartered Physiotherapists, 2007).

Hydrotherapy differs from land-based physiotherapy in that the heat and apparent weightlessness experienced in this environment can reduce muscle spasticity, ease pain, make movement easier, help maintain skills being lost on land, or enable new skills to be learnt in an unencumbered environment. It can also enhance cardiovascular response to exercise and improve general fitness (Dr Heather Epps www.aquaepps.co.uk).

2. Management, organisation, supervision and support

Working in a pool area can be demanding on staff due to the higher temperatures and humid environment. Demand for therapy is high and this can mean pressure to involve as many clients as possible in a session; this places extra stress on staff particularly when the clientele is very dependent. Policies specific to each hydrotherapy pool should specify the amount of time that staff spend in the water and on pool side; provision should be made for regular staff changes. This should be closely monitored and altered if necessary to reduce the time spent in this area. Special considerations for pregnant workers should be made. Fresh drinking water must be available to staff and to individuals accessing therapy to reduce the risk of dehydration.

3. Staffing levels

This will vary from session to session and will be determined by the physical and psychological dependency of the individuals accessing aquatic therapy. Individual risk assessments should identify the minimum and maximum number of staff required. At a minimum, 2 people will be required at all times, one person in the water and one poolside in case of emergencies. For highly dependent individuals, staffing levels must be sufficient to ensure that there is appropriate support both in the pool and on the poolside. There should also be trained designated staff members outside the pool area who can respond quickly in times of an emergency.
Extra members of staff may be required to assist mobile children or adults with unpredictable behaviour. The risk of slips, trips and falls may increase with this client group and some may attempt to interfere with equipment if not sufficiently supervised. A very careful risk assessment must be undertaken for people with challenging behaviour to ensure that behaviour management strategies are in

place to ensure safe exit from the pool. No one should be allowed to use the pool if it is thought that, by their behaviour, they may endanger themselves, other pool users, volunteers or staff members.

4. Staff Competencies (after Benner, as cited in Ruszala et al, 2010)

Novice – many students, new staff (qualified and unqualified) who have little or no knowledge of aquatic therapy.

Advanced beginner – staff and students who have previous experience of working within a hydrotherapy pool.

Competent – staff who have a good knowledge of moving and handling and who have received specific instruction in moving and handling people within this environment; they are able to assist in the emergency evacuation if required.

Proficient – the Manual Handling Key Worker who has received additional education, training, supervision and assessment, who is able to undertake specialist risk assessment and safely supervise other staff. They will be able to lead the emergency evacuation and supervise other staff.

5. Environment

Hydrotherapy pool areas are hot environments in which to work. There is the added risk of slip and trip hazards due to wet floors, wet chairs and changing tables.

6. Communication and information systems

There are both generic and patient individual risk assessments available for staff to read. An emergency evacuation plan should be devised and practised regularly. Staff away from the pool area must be able to be contacted easily and quickly and must know how to respond in the case of an emergency.

7. Treatment planning

Goals - When the session is for therapeutic reasons, an assessment must have been carried out by the professional responsible for the session which gives clear measurable goals with, where appropriate, timescales for the achievement of goals. Some people may benefit from a short course of aquatic therapy followed by a continuing programme of land-based exercise. This programme should again be formulated by the physiotherapist who is responsible for delivering the programme or ensuring that non-therapy staff are competent to do so.

Guidance – Treatment planning requires the physiotherapists to consider not only the "hands-on" treatment, but also the overall management of the patient. This includes consideration of the following:

- Entry/exit (use of hoist) – part of risk assessment
- Depth of water – part of risk assessment
- Length of treatment time
- Starting positions
- Progression/modification of exercise
- Use of buoyancy aids
- Use of other hydrotherapy equipment
  (Hydrotherapy Association of Chartered Physiotherapists, Guidance on good practice in Hydrotherapy – CSP 2006)

In situations where clients are using a pool for non-therapeutic recreational purposes, the role of the staff member/s is for safety purposes only and no exercises are taught or corrected, to prevent staff members taking on legal liability for the patient. Patients and staff must be made aware of this (CSP 2006).

8. Moving and handling tasks

The moving and handling required to assist adults and children undergoing aquatic therapy will depend on the level of the disability of the individual. Some will be able to access the pool independently, whilst others will be completely dependent on care staff and will always require hoisting in and out of the pool. Moving and handling can be divided into 5 distinct elements: -

1. Assistance to undress and dress in bathing costume
2. Access to and egress from the pool
3. Assistance with showering
4. Emergencies involving the adult or child undergoing aquatic therapy
5. Emergencies involving a staff member or visitor.

9. Moving and handling assessment

Aquatic therapy is a very specialised area of expertise and each client requires a specific moving and handling risk assessment. This should detail the person's abilities, their moving and handling requirements with regard to undressing and dressing, accessing and egressing the pool, showering and changing and transfers to and from the pool to the outside. Specific medical conditions should be included with an emergency evacuation plan. Conditions such as epilepsy and diabetes must be noted with specific instructions about the administration and timing of medication or treatment.

If the person feels unwell they should be asked to get out of the pool immediately. If the person cannot safely leave the pool independently, or if the person is usually unable to walk, a hoist must be available for staff to use. In a life-threatening situation, a pool scoop stretcher may be used with sufficient numbers of staff to pull the person out of the water. This technique should be practiced every 6 months to ensure all staff are competent. The person must be dried as quickly as possible in case defibrillation is required and handlers reminded of the importance of drying the floor around the person to reduce the risk of electric shock to bystanders; therefore, enough dry towels should be

made available with drying facilities for people jumping into the water to rescue the patient.
Persons over the SWL of the hoist must not be allowed in the pool.

For "unforeseen emergencies" in a client or visitor e.g. Collapse due to a heart attack or stroke, staff must be trained in emergency evacuation procedure (Resuscitation Council (UK) 2009).

If a staff member or volunteer should collapse, procedures must be in place to deal with this emergency and sufficient staff available outside the pool area trained to take over the care of the clients and assist them in an orderly manner.

10. Methods, techniques and approaches

As with learning to swim, there are a number of different approaches to providing aquatic therapy. The Halliwick Method is an approach used by many physiotherapists as the basis for their treatment programmes (www.halliwick.org.uk).

Whatever the approach, it is essential that if handling is to be delegated to non-therapists, the prescribing therapist must ensure that this person has sufficient understanding of the approach to be able to apply it appropriately and ensure maximum benefit is derived from it.

In the area of emergency evacuation from the pool, a particular approach may be advocated by the prescribing therapist. It is essential that all staff who may be involved in this are trained and confirmed as competent to do so (www.resus.org.uk).

A specific epilepsy management plan for hydrotherapy must be provided for each person who requires one. This should detail the exact requirements of the individual and must be easily available and readable. Rescue medication must be brought to the poolside. The start time of the seizure must be noted and the appropriate timed plan followed in detail.

A specific diabetes management plan will be required for those clients who may need emergency treatment. All staff must be trained to recognise symptoms of hypo and hyper glycaemia and be able to access and administer the required emergency treatment at the poolside.

Specialist equipment for evacuation may be needed such as hoists, evacuation boards, inflatable neck supports, emergency evacuation nets and manual transfer slings in a variety of sizes (depending on the type of pool user and whether or not they can be safely hoisted out of the water). It is essential that, in line with the individual risk assessment, appropriate equipment is available and that all staff are competent in its use. Emergency evacuation is likely to be needed on only a few rare occasions – it is therefore essential that staff carry out regular practice in use of equipment.

11. Handling equipment

There should be a suitable and sufficient amount of equipment available to meet the needs of the people attending aquatic therapy. The most dependent will require changing tables and hoisting equipment. Hoists can be fixed to the poolside floor, with a seat for the person to transfer onto which is then moved into the water; alternatively a ceiling track hoist may be installed whereby the person can be hoisted from the changing table directly into the pool either using a sling or "stretcher" attachment.

Some people may be able to be assisted into the pool by "hoist assisted" walking. Slings must be appropriate to the individual and the risk assessment must identify the size and type of sling. It must clearly state the loops used for attachment; where possible, these should have a consistent colour code system. If chest straps etc need to be used for an individual, this must be clearly marked on the risk assessment. Each person hoisted will require a sling for wet use and a second "dry" sling.

Each person using a hoist for access to the pool should have their own slings for hygiene reasons. In environments where the slings are the property of the pool, appropriate laundering facilities must be available to ensure that all slings are cleaned after use and not transferred from one person to the other without laundering.

In accordance with the Lifting Operation and Lifting Equipment Regulations (1998), all hoisting equipment and slings must be inspected every 6 months and any defects recorded and reported. Slings should be thoroughly examined by a competent person as part of this assessment (LOLER, 1998). Slings or hoists which are identified as having defects should not be used. All hoisting equipment should be serviced annually.

Protocols need to be devised where children are carried into and out of the water to avoid slips, trips and falls. This should be noted in the individual risk assessments. Similarly, a risk assessment is required if a child is handed over the poolside to the waiting physiotherapist; this is not recommended as the potential for accidents is high.

Emergency evacuation equipment will also be required in pool environments for some situations. Each organisation must have a local policy in place for evacuating a collapsed patient from the hydrotherapy pool and the procedure must be practised regularly. The Resuscitation Council (UK) 2009 Guidelines state that hoists are often the preferred method of evacuation from the pool in an emergency, whilst the Hydrotherapy Association of Chartered Physiotherapists recommends the use of a water rescue board for evacuation of children (Hydrotherapy Association of Chartered Physiotherapists, 2006). Other equipment that may be useful includes an inflatable neck support for adults and children, evacuation boards or nets (Betts and Mowbray, 2005); for some children a manual transfer sling may be appropriate. Individual risk assessments must identify the specific equipment to be used in the event of an emergency whilst in or near the pool.

12. Other equipment and furniture

Staff must be appropriately dressed and wear full flat shoes when using any mobile equipment poolside or in the changing areas. Water resistant shower/commode chairs, perching stools and poolside chairs should be available, a wheelchair may be required for some people to transport them safely out of the pool area (if tired and unable to walk after the hydrotherapy session). Level access showering area and specific shower trolleys will enable everyone to access the showers. Height adjustable changing tables that go low enough should be provided for people who are able to climb on and off to encourage their independence; they must be able to be raised to an appropriate height for staff and parents to work safely. All clients who require them must wear swim incontinence pants. Disinfectant wipes must be provided. Storage away from the immediate poolside area should be provided for outdoor wheelchairs and pushchairs to maintain hygiene standards and reduce risk of cross-infection. Foil wraps must be available to minimise heat loss following emergency evacuation.

A reliable clock, emergency pull cord and telephone with easily visible emergency phone numbers are also essential.

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.

Handling people in water is likely to create a higher level of risk than providing similar support on land. Similarly the handling involved in an emergency evacuation situation will be of a higher risk and thus require a higher level of

training and skill from the handlers than would be necessary when working on dry land. The speed of response that is required should not compromise safety.

14. Alerting the moving and handling team

If there are specific moving and handling queries with regard to the management of some clients e.g. the very dependent or the less mobile bariatric client, the MHP/ BCA/ MH Advisor should be contacted for advice.

15. Referral to and involvement of other specialists

Manual handling in aquatic therapy is a specialised area and therefore any aquatic therapy should follow the guidelines and programme detailed by physiotherapists. Any non-therapy staff required to carry out programmes should be trained by the prescribing therapist. Their competence and performance should be regularly reviewed. For those people participating in aquatic therapy with specialist health needs, liaison with the relevant health professionals is essential. Where people with disabilities are accessing a pool for social/general exercise rather than therapeutic reasons, those responsible for the care of these individuals must ensure that all risks have been assessed and that the appropriate health and safety checks are in place before people use the pool.

16. Transport – internal and external

N/A

17. Discharge planning

Aquatic therapy programmes may well be of short duration, for example 6 weeks. At the end of the programme, the prescribing therapist will review and make recommendations. This may involve non-therapy staff continuing to provide aquatic therapy. It is essential that the therapist trains the non-therapy staff and confirms their competence to carry out ongoing therapy. Regular review is essential and non-therapy staff must be able to refer back to the prescribing therapist if any concerns or new issues arise between the review dates.

18. References

Health and Safety at Work etc Act (1974)
http://www.hse.gov.uk/legislation/hswa.htmct 1974 accessed October 2011
sections 2, 7

Aquaepps.co.uk http://www.aquaepps.co.uk/#/aquatic-therapyhydrotherapy/4535760359 Retrieved October 2011

Aquatic Therapy Association of Chartered Physiotherapists (2007) London: CSP

Benner, P (1984) *From novice to expert: Excellence and power in clinical nursing practice* Boston: Addison-Wesley pp13-34 as cited in Ruszala S, Hall J and Alexander P (2010) 3rd Ed. Standards in Manual Handling Towcester: NBE

Betts, M & Mowbray, C (2005) ch 17 *The falling and fallen person and emergency handling p268-70* in The guide to the handling of people 5th ed Smith, J (ed) Teddington: BackCare

Health and Safety Commission (1998) *L113 Safe use of lifting equipment Lifting Operations and Lifting Equipment Regulations 1998 ACOP and guidance* http://www.hse.gov.uk/lau/lacs/90-4.htm Regs 5 and 6

Hydrotherapy Association of Chartered Physiotherapists (2006) *Guidance on good practice in Hydrotherapy* London: CSP

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

Resuscitation Council (UK) (2009) *Guidance for safer handling during resuscitation in healthcare settings* London: Resuscitation Council pp26-27

Further reading

Alexander, P and Johnson, C (2011) *Manual Handling of Children* Towcester: National Back Exchange p55-56

APCP (2010) *Guidance for physiotherapists: paediatric manual handling* London: CSP

CSP (2008) *Guidance on Manual Handling in Physiotherapy* London: CSP

HSC (1998) *L22 Safe use of work equipment Provision and Use of work Equipment Regulations 1998 ACOP and guidance* Sudbury: HSE Books Regs 4,5,6,7,8,9,15,16

HSE (2000) *L21 Management of health and safety at work Management of Health and Safety at Work Regulations 1999 ACOP and guidance* Sudbury: HSE Books regs 3, 4, 10, 13, 14 Sched 1

Health and Safety Executive (2004) *Manual handling Manual Handling Operations Regulations 1992 (as amended) Guidance on Regulation L23* 3rd Edition Sudbury: HSE Books regs 4, 5

The Health and Social Care Act 2008 (Regulated Activities Regulations 2010) http://www.legislation.gov.uk/ukdsi/2010/9780111491942/contents Retrieved October 2011 reg 9.1; 10.1a,b; 10.2e; 15-17; 20-24

Useful Websites

www.halliwick.org.uk

www.aquaepps.co.uk

www.resus.org.uk

Some Possible Equipment Suppliers

www.silvalea.co.uk

www.promove.uk.com

http://www.disabilityequipment.com/about_care.php

http://www.swimshop.co.uk/Kiefer-Rescue-Spine-Board-PRESCUESPINEBRD/

http://www.barworthmedical.com/PDFs/Nets.pdf

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 G27 is:**

A safe system of work is in place for a hydrotherapy pool, including dealing with a collapsed person.

- **Skilful M&H is key**

- **Special points for G27 are: -**
  - **Individual risk assessments and handling plans are provided which are easily accessible for each person**
  - **Clear emergency evacuation plans are established for persons with known conditions such as epilepsy and diabetes**
  - **Emergency evacuation plans are prepared and practised for emergency collapse in the pool or surrounding area**