AQUATIC PHYSIOTHERAPY - USE OF DRYSUITS - CHW

PRACTICE GUIDELINE ©

DOCUMENT SUMMARY/KEY POINTS

- This document will provide guidelines for the use of Drysuits in Aquatic Physiotherapy at the Children's Hospital at Westmead.

CHANGE SUMMARY

- N/A – new guideline

READ ACKNOWLEDGEMENT

- To be read by all staff using the Drysuit in Aquatic Physiotherapy at CHW

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1st January 2024	**Review Period**: 3 years
Team Leader:	Physiotherapist	**Area/Dept**: CHW Physiotherapy

TABLE OF CONTENTS

Background

- At The Children's Hospital at Westmead, children with a Central Venous Access Device (CVAD) (Central Venous Catheter - CVC, Midline or Peripherally Inserted Central Catheter - PICC) are not allowed to swim. (http://webapps.schn.health.nsw.gov.au/epolicy/policy/5119/download)
- Children with an oncology diagnosis can occasionally have complications that make it difficult to mobilise or perform physical activity. These complications can include Osteonecrosis/Avascular Necrosis, bony tumours with or without orthopaedic surgery and significant deconditioning. For these children, hydrotherapy provides a method of undertaking exercise, rehabilitation and physical activity. The ability to undertake physical activity is considered to be a standard of care for people with an oncology diagnosis. (https://www.cosa.org.au/media/332488/cosa-position-statement-v4-web-final.pdf)
- Drysuits are used to allow immersion in water whilst keeping the body dry. Using a drysuit will allow a child with a tunnelled, cuffed CVC to access hydrotherapy during their treatment. (https://hammond-drysuits.co.uk/product/childrens-hickman-line-shortie-drysuit/)

Evidence

No studies have been carried out into the use of drysuits in this population. Anecdotal evidence from Great Ormond Street Hospital (United Kingdom) is that the drysuits are effective and safe.

Risks

The primary risk is failure of the drysuit, allowing water to come in contact with the CVC exit site or the CVC hubs. This would require senior nursing management, with potential for infection and the need for line removal.

Indications

Drysuits will be considered to allow hydrotherapy when the child is unable to participate in land-based physiotherapy sessions or physical activity. Only children with a tunnelled, cuffed CVC will be considered. Additionally:

- Permission must be granted by the oncologist
- The Oncology Clinical Nurse Consultant (CNC) must discuss the CVC care requirements with the patient and their family and the family must consent to the extra cares and risks

Contraindications/Precautions

All normal aquatic physiotherapy policies should be followed, including precautions and contraindications (CIs). The additional precautions and CIs are below.

Contraindications

- When a significant event is being planned for (eg Bone Marrow Transplant, High Risk block or induction) where removal and reinsertion of the CVC would significantly impact the child's treatment.
- A child who is unwilling to do the required dressing changes following the swim
- Within 3 weeks of CVC insertion or if exit site is not sufficiently healed

Precautions

- A child who is unable to voice if water is getting into the drysuit
- A child unable to cope with donning and doffing the suit and tolerating the tight seals.
- Recent surgery/Lumbar Puncture/Bone Marrow Aspirate – to liaise with primary team

Adverse Reactions

1. Sweating/overheating. Management:
    - ensure fluid intake
    - recommend child wears cotton t-shirt under drysuit
2. Discomfort around the tight seals

Procedure

1. Hydrotherapy medical clearance form (via Powerchart) and documented consent from Oncologist to use drysuit
2. The CVC is to have usual dressing in situ. The dressing is to be assessed by the family or CNC prior to hydrotherapy session and changed if required. If possible the hydrotherapy session can be timed with the weekly CVC dressing change. The child's parent/carer should make an appoint at OTC for a CVC/dressing review for immediately following the hydrotherapy session.
3. Patient to provide and wear cotton shirt to absorb sweat under drysuit
4. Drysuit to be applied with the assistance of two people. On first use, seals to be cut and measured to fit patient. Ensure zips are closed and locked.
5. When entering water, test each seal by immersion before proceeding.
6. On completion of the hydrotherapy session, the child is to present to Oncology Treatment Centre for review of the CVC and dressing.

Cleaning and storage

Currently, the suits are only approved for single patient use. They can be cleaned using normal local cleaning guidelines. This can be via wiping with the appropriate solution/wipe or by washing in detergent and cold water.

The manufacturer instructions for storage are:

- Ensure your suit is rinsed and dried after use.
- Leave zip open when storing for prolonged periods.
- Store in a clean, dark, cold environment (approximately 10-20 degrees C)
- Always ensure the suit is protected from direct sunlight and fluorescent lights as this may cause perishing.
- Care should be taken to minimise excessive folding of the zip, especially when left open.

Application guide

https://hammond-drysuits.co.uk/wp-content/uploads/2021/06/hickman-line-parent-help.pdf