

NHS Foundation Trust

2004

Title: Pleural (chest) Fluid drainage in the Community Setting			
Standard Operating Procedure (SOP)			
Prepared by: Tina Mitchell: Clinical S	kills Facilitator		
Presented to: Care & Clinical	Date: 27/01/2016		
Policies			
Ratified by: Care & Clinical Policies Date: 27/01/2016			
Relating to policies:	Review date: 27/01/2016		
 TSDFT Infection Control Policies 	;		
 Plymouth Community Healthcare 	e (PCH) Guidance for pleural and		
peritoneal drainage			
Royal Devon & Exeter (RD&E) Hospital Guidance for pleural &			
peritoneal drainage			
Torbay and Southern Devon NHS Foundation Trust (TSDFT) Guidance			
for pleural and peritoneal drainage			
TSDFT Clinical Guideline for the Assessment of Clinical Competence			
in Registered Nurses (community)			
TSDHFT Consent Policy			
Department Of Health (DOH) Consent Form 4 Adults who are unable to			
consent to investigation or treatment			

1. Purpose of this document:

Definition: A pleural effusion is defined as "an excess amount of fluid in the pleural space" (Kumar & Clark 2009) cited by The Royal Marsden (2011) page 557. Therapeutic pleuracentesis (chest drainage) is performed to relieve the discomfort associated with this condition. Drainage should never exceed 1 litre (1000mls) at a time, and flow rate should be controlled using the clamp on the drainage line. Drainage of large pleural effusions should take place in hospital, as removing too much fluid can cause re-expansion pulmonary oedema. A sudden drop in blood pressure is indicative of loss of volume, and should be reported to a Dr immediately, as IV fluids may be needed to prevent further hypotension

Pleural effusions should always be drained using vacuum drainage bottles, unless the patient finds vacuum drainage too uncomfortable, and they have been assessed for gravity drainage into a bag.

You must stay with the patient during drainage

2. Scope of this SOP: Community Qualified Nurses, within Torbay and South Devon Foundation Trust (TSDFT)

- 3. Competencies required: Staff undertaking this procedure must:
 - Attend a study day provided by TSDFT
 - Undertake supervised practice
 - Be assessed as competent, using validated assessment criteria.
 - Be identified as competent to practice by their line manager
 - Keep documented evidence of competence

4. Patients Covered

Adult Patients over the age of 18, within the care of TSDFT.

4.1 Exclusions:

- Children under 18 years
- Bank and Agency Nurses unless trained by TSDFT for client specific care

4.2 **Training Guidelines:**

- Training for this skill will primarily be client specific to facilitate discharge from the acute Trust to a local District General Hospital (DGH), and from community hospitals to home.
- Staff should contact the Clinical Skills Facilitator for training, if they are aware of a client being discharged with a pleural drain in situ.
- Training can be provided by the drain company representatives
- Each individual practitioner holds responsibility to ensure they maintain their clinical competence in this skill.
- All practitioners who have had a prolonged period of absence e.g. maternity leave, should attend a training update before undertaking the skill again.
- All community practitioners, undertaking this skill regularly, must attend a training update every 3 years.
- 4.3 **Training Objectives:** For staff to understand how:
 - To improve the client's quality of Life
 - To relieve breathlessness and chest pain
 - To minimise the risk of infection
 - To drain pleural fluid as directed by the hospital
 - To prevent hospital admissions
 - To maintain communication between primary and secondary care.

4.4 **Guidelines for Assessors:**

Assessors should satisfy themselves that:

- The practitioner understands the anatomical and theoretical aspects of pleuracentesis
- The practitioner adheres to the procedural guidelines
- That the TSDFT validated assessment book (Community) criteria is used to assess competence.

4.5 **Assessors must ensure that the learner has completed and is familiar with:**

- Gaining informed consent
- Appropriate checking of the patients' details and request form.
- Appropriate preparation of equipment
- Aseptic technique
- Trouble-shooting
- Gaining emergency assistance
- Documentation

4.6 **Equipment:**

- Aprons
- Gloves
- Drainage Procedure Pack: Rocket[™] or Pleurex[™] vacuum drainage kit
- Drainage Record documentation

The Community Nurse/Community Hospital Nurse should review hospital discharge guidance prior to commencing procedure

The Community Nurse/Community Hospital Nurse <u>must</u> stay with the patient during chest drainage

N,B: There are comprehensive procedure guidelines in all the drainage packs. All drainage kits are single-use, and must be disposed of as per local clinical waste guidelines

5. Procedure:

Action	Rationale
Obtain informed consent or demonstrate and record that the nurse is acting in the patient's best	To ensure the patient is giving current, procedure specific informed consent as per Trust Policy
interests. Explain the benefits, risks, side effects and complications.	To ensure you are acting in the patients best interests if they cannot give verbal or written consent, as in the DOH Consent guidance
Community Nurses MUST stay with the patient until drainage stops, or 1 litre of fluid has been drained. The drainage may need to be slowed if the patient has too much discomfort	To maintain patient safety, and observe for complications.
Maintain the patient's privacy and dignity	To ensure the client is relaxed and not compromised during the procedure

Ensure the patient has been given analgesia if prescribed	To reduce pain or discomfort during the procedure	
Set up a clean, clear workspace on a table or trolley	To reduce the risk of infection	
Thoroughly wash your hands, and put on disposable apron and gloves	To reduce the risk of infection	
Remove the patient's dressing from over the catheter, and observe for swelling, redness or fluid around the exit site. Take swabs and contact a Dr if necessary	To ensure prompt treatment is administered where infection, or drainage catheter displacement is suspected	
Remove gloves and wash your hands thoroughly again	To reduce the risk of infection	
Open all packaging using aseptic no- touch technique	To reduce the risk of infection	
Open the sterile dressing pack, and place the vacuum bottle on your clean flat surface	To reduce the risk of infection	
Check the bottle is vacuumed, the seal is intact, and the support clip remains in situ until use. If using a free drainage bag, ensure it is intact.	To ensure patient safety and reduce the risk of complications during drainage if the vacuum is not working	
Uncoil the drainage line, pinch the line clamp fully closed and place the access tip onto the sterile field.	To reduce the risk of infection	
Remove gloves and wash hands. Put on your sterile apron and gloves	To reduce the risk of infection	
Open the valve cap pouch and drop the valve onto the sterile field.	To reduce the risk of infection	
Tear open the alcohol wipes or chloraprep sponges, and leave them on the edge of sterile field	To reduce the risk of infection	
Ensure the clamp on the drainage line is completely closed	To prevent leakage from the abdomen before the drainage bottle or bag is attached.	
Remove the catheter cap and discard into your clinical waste bag	To reduce the risk of infection	
Clean around the catheter valve	To reduce the risk of infection	

opening with your first alcohol wipe		
N.B Never clean inside the valve	This will damage the valve	
Make sure the patient is sitting, or lying supported by pillows	For patient safety and comfort during the procedure	
Insert the access tip on the end of the drainage line into the valve as per manufacturers' instructions	To ensure there is a closed system for drainage	
Vacuum Bottles: Remove the support clip from the top of the bottle and push down T plunger (Pleurex [™]) into the bottle cap, or release the bottle clamp on Rocket [™] drains. For both, release the clamp on the line to start draining	To start the vacuum and ensure there is a closed system for drainage	
Free Draining Bags: Place the bag on the floor, or bed, and release the clamp on the line to begin draining	To start drainage procedure using gravity	
The Maximum amount of fluid which should be drained from the chest is 1 litre (1000mls) each visit unless otherwise discussed with the patient's doctor	Over drainage can result in hypo- volaemic shock and other serious complications	
The patient may experience discomfort, or drainage may be too rapid, if so, slow the drainage down using the line clamp	To reduce discomfort To prevent complications	
If the patient has prolonged pain or severe discomfort, contact the GP, Dr, or ward	Severe pain can be caused by infection or catheter positional complications	
When the drainage has stopped, 1 litre has been drained, or it is stopped due to patient discomfort, clamp the line off. Disconnect the drainage line by rotating it anti-clockwise, and slowly pulling the access tip out of the valve	To ensure vacuum from the bottle is stopped or To ensure drainage into the bag is stopped	
Clean the outside of valve with an alco wipe	To prevent infection	
Apply the new catheter valve cap and rotate it clockwise until it clicks into	To ensure the catheter is covered and remains sterile	

Clean around the exit site on the patient's abdomen with a new alcohol wipe	To prevent infection
Place the foam catheter pad around the catheter site, loop the drainage tube around on top of the foam, and cover with gauze	To prevent infection, or displacement of the catheter
Open sterile clear dressing and apply it to the abdomen, over the gauze pads.	To prevent infection and keep the site clean and dry.
Dispose all equipment and old dressings into a clinical waste bag, and arrange collection/disposal as per Trust guidelines	To prevent cross infection
The bottle or bag can be emptied down the toilet or sink if the patient is not currently having chemotherapy. If they are still having treatment, the bag/bottle should be clamped off and put into a yellow bag for collection	To prevent cross infection
Remove apron and gloves. Wash hands	To prevent infection
Complete documentation, and record volume drained, on relevant drainage diary.	To maintain patient safety, and highlight any problems with drainage
Ensure the patient is comfortable and safe to leave	To maintain patient safety, and prevent complications post procedure
Community Nurses, and Acute Hospital Nurses need to liaise regularly	To ensure the care plan is followed, and treatment revised as necessary.

6. Monitoring tool:

Standards:

Item	%	Exceptions
Assessment in Practice with validated		
assessment documents		
3 yearly training updates with clinical skills		
facilitators		

Equality Statement.

The Trust is committed to preventing discrimination, valuing diversity and achieving equality of opportunity. No person (staff, patient or public) will receive less favourable treatment on the grounds of the nine protected characteristics (as governed by the Equality Act 2010): Sexual Orientation; Gender; Age; Gender Reassignment; Pregnancy and Maternity; Disability; Religion or Belief; Race; Marriage and Civil Partnership. In addition to these nine, the Trust will not discriminate on the grounds of domestic circumstances, social-economic status, political affiliation or trade union membership.

The Trust is committed to ensuring all services, policies, projects and strategies undergo equality analysis. For more information about equality analysis and <u>Equality Impact Assessments</u> please refer to the <u>Equality and Diversity Policy</u>

References:

The Royal Marsden Hospital Manual of Clinical Nursing Procedures: 8th Edition (2011) Chapter 9. Pages 493 – 499 <u>www.ukmedical.com/pleurex</u> <u>www.rocketmedical.com</u> NICE Medical Technology Guidance 9 (March 2012)

Amendment History

Issue	Status	Date	Reason for Change	Authorised
2	Review	11/11/2014	2 year review	T.Mitchell
3	Review	27/07/2015	Change in Clinical Practice	T.Mitchell
4	Review	26/10/2015	Change of Logo. Community added to title and throughout document as recognised differences in practice for community nurses	T.Mitchell