Pleural (chest) Fluid Drainage in the Community Setting	
Standard Operating Procedure (SOP)	
Ref No: 2004 **Version:** 5	
Prepared by: Clinical Skills Facilitator	
Presented to: Care and Clinical Policies Group	**Date:** 16 May 2018
Ratified by: Care and Clinical Policies Group	**Date:** 16 May 2021
Relating to policies: Pleural and Peritoneal Drainage TSDFT Assessment of Clinical Competence in Registered Nurses (community) Ref 1803 - Assessment of Clinical Competence in Registered Nurses (Community) Ref 0356 – Consent Policy	**Review date:** 25 May 2021

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 (2015) page 454. Therapeutic pleuracentesis (chest drainage) is performed to relieve the discomfort associated with this condition. Drainage should never exceed 2 x 500ml bottles (1000mls in 24 hours) at a time, and flow rate should be controlled using the clamp on the drainage line. Drainage of large pleural effusions 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 must 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 and changed to drainage via flutter bag by the consultant or nurse specialist.

You must stay with the patient during drainage

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

3. Competencies required: Staff undertaking this procedure must:

- Attend a training session provided by TSDFT or drain representative
- Undertake supervised practice
- Be assessed as competent, using validated assessment criteria.
- 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/has evidence of training and assessed as competent by TSDFT staff for client specific care

4.2 **Training Guidelines:**

- Training for this skill will primarily be client specific to facilitate discharge from the local acute hospital to community hospital or to the patients home.
- Staff should contact the Clinical Skills Facilitator or the drain company representative for training, if they are aware of a client being discharged with a pleural drain in situ.
- 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.

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:**

- Seeking informed consent
- Appropriate checking of the patients' details and discharge summary.
- 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 or flutter bag 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 must 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:

5.1 Explain procedure and seek informed consent. Undertake Best interest if patient unresponsive or lacks capacity.

5.2 Maintain the patient's privacy and dignity

5.3 Community Nurses MUST stay with the patient until drainage stops, or 2 x 500mls of fluid has been drained.
The drainage may need to be slowed if the patient has too much discomfort.

5.4 Ensure the patient has been given analgesia if prescribed and required

5.5 Set up a clean, clear workspace on a table or trolley

5.6 Thoroughly wash your hands, and put on disposable apron and gloves

5.7 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. Sutures around drain tubing can be removed after 3 weeks, as an internal cuff becomes embedded and keeps drain in place after this time

5.8 Remove gloves and wash your hands thoroughly again.

5.9 Open all packaging using aseptic no-touch technique

5.10 Open the sterile dressing pack, and place the vacuum bottle on your clean flat surface.

5.11 Check the bottle is vacuumed, the seal is intact, and the support clip remains in situ until use. If using a flutter drain bag, ensure it is intact and activate flutter value as per manufacturer's instruction.

5.12 Uncoil the drainage line, pinch the line clamp fully closed and place the access tip onto the sterile field.

5.13 Remove gloves and wash hands. Put on your sterile apron and gloves.

5.14 Open the valve cap pouch and drop the valve onto the sterile field.

5.15 Tear open the alcohol wipes or chloraprep sponges, and leave them on the edge of sterile field.

5.16 Ensure the clamp on the drainage line is completely closed.

5.17 Remove the catheter cap and discard into your clinical waste bag.

5.18 Clean around the catheter valve opening with your first alcohol wipe
N.B Never clean inside the valve.

5.19 Make sure the patient is sitting, or lying supported by pillows.

5.20 Insert the access tip on the end of the drainage line and click to secure into the valve as per manufacturers' instructions.

5.21 Vacuum Bottles:

Pleurex™ Remove the support clip from the top of the bottle and push down T plunger into the bottle cap. Release the clamp on the line to start draining

Rocket™ release the bottle clamp on drains. Release the clamp on the line to start draining

Flutter drainage Bags: Place the drain lower than the drain entry port or on the bed and release the clamp on the line to begin draining. If changing the flutter drain bag, the chest drain tube must be clamped prior to the bag change. This can be released once new bag id in situ.

The Maximum amount of fluid which should be drained from the chest is 2 x 500ml bottles at each visit, unless otherwise discussed with the patient's doctor The patient may experience discomfort, if drainage is too rapid, if so, slow the drainage down using the line clamp. If the patient has prolonged pain or severe discomfort, contact the GP or ward, or clinical nurse specialist

5.22 Once drainage has stopped or 2 x 500mls has been drained, or it is stopped due to patient discomfort, clamp the line off – see monitoring tool

5.23 Disconnect the drainage line by rotating it anti-clockwise, and slowly pulling the access tip out of the valve.

5.24 Clean the outside of valve with an alco wipe.

5.25 Apply the new catheter valve cap and rotate it clockwise until it clicks into position.

5.26 Clean around the exit site on the patient's chest with a new alcohol wipe

5.27 Place the foam catheter pad around the catheter site, loop the drainage tube around on top of the foam, and cover with gauze.

5.28 Open sterile clear dressing and apply it to the chest, over the gauze pads.

5.29 Dispose all equipment and old dressings into a clinical waste bag.

5.30 The flutter drainage bag can be emptied down the toilet if the patient is not currently having chemotherapy. If they are still having treatment, the flutter drainage bag should be clamped off and put into a clinical waste bag for collection.

5.31 Remove apron and gloves. Wash hands.

5.32 Complete documentation and record volume drained, on relevant drainage diary.

5.33 Ensure the patient is comfortable and safe to leave.

5.34 Community Nurses and Acute Hospital Nurses may need to liaise regularly

6. **Monitoring tool:**

Assessment in Practice with validated assessment documents

Problem	Action
No Drainage	Check breathlessness If breathless contact hospital for advice If no breathlessness Check vacuum on bottle is positive, if not change bottle. This can be caused by air being drained into the bottle from hydro pneumothorax Reduce drainage attempts to twice weekly or once weekly depending on previous regime If draining less than 50mls in 3 consecutive drains Contact local acute hospital drain may be removed
If drains more than 1000 mls	Contact local acute hospital for advice. Check blood pressure
Pain on drainage	Pain relief prior to drainage Slow drainage down using valve Offer reassurance throughout procedure
Site infected	Inform GP, swab site
Drain falls out	Clamp any visible tubing. Site should be steri-stripped and covered with a dressing to seal it i.e Opsite. Transfer to local acute hospital as risk of pneumothorax and to review in case another drain is required.
Torbay Contact number Mon – Fri 9-5 Rocket Drain contact number	Lung Cancer Clinical Nurse Specialist 01803 655069 Tel: 0191 419 6988 Mobile 07972 773215 Rocket Drain Representative

Monitoring tool:

Standards:

Item	%	Exceptions

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 Equality Impact Assessments please refer to the Equality and Diversity Policy

References:

The Royal Marsden Hospital Manual of Clinical Nursing Procedures: 9th Edition (2015) Chapter 9. Pages 454.
www.ukmedical.com/pleurex
www.rocketmedical.com
http://thorax.bmj.com

Issue	Status	Date	Reason for Change	Authorised
2	Review	11 November 2014	2 year review	Clinical Skills Facilitator
3	Review	27 July 2015	Change in clinical practice	Clinical Skills Facilitator
4	Review	26 October 2015	Change of logo, community added to title and throughout document as recognised differences in practice for community nurses	
5	Revised	25 May 2018	Revised	Care and Clinical Polices Group

The Mental Capacity Act 2005

The Mental Capacity Act provides a statutory framework for people who lack capacity to make decisions for themselves, or who have capacity and want to make preparations for a time when they lack capacity in the future. It sets out who can take decisions, in which situations, and how they should go about this. It covers a wide range of decision making from health and welfare decisions to finance and property decisions

Enshrined in the Mental Capacity Act is the principle that people must be assumed to have capacity unless it is established that they do not. This is an important aspect of law that all health and social care practitioners must implement when proposing to undertake any act in connection with care and treatment that requires consent. In circumstances where there is an element of doubt about a person's ability to make a decision due to 'an impairment of or disturbance in the functioning of the mind or brain' the practitioner must implement the Mental Capacity Act.

The legal framework provided by the Mental Capacity Act 2005 is supported by a Code of Practice, which provides guidance and information about how the Act works in practice. The Code of Practice has statutory force which means that health and social care practitioners have a legal duty to have regard to it when working with or caring for adults who may lack capacity to make decisions for themselves.

"The Act is intended to assist and support people who may lack capacity and to discourage anyone who is involved in caring for someone who lacks capacity from being overly restrictive or controlling. It aims to balance an individual's right to make decisions for themselves with their right to be protected from harm if they lack the capacity to make decisions to protect themselves". (3)

All Trust workers can access the Code of Practice, Mental Capacity Act 2005 Policy, Mental Capacity Act 2005 Practice Guidance, information booklets and all assessment, checklists and Independent Mental Capacity Advocate referral forms on iCare

http://icare/Operations/mental_capacity_act/Pages/default.aspx

Infection Control

All staff will have access to Infection Control Policies and comply with the standards within them in the work place. All staff will attend Infection Control Training annually as part of their mandatory training programme.

NHS South Devon and Torbay Clinical Commissioning Group Torbay and South Devon NHS NHS Foundation Trust

Rapid (E)quality Impact Assessment (EqIA) *(for use when writing policies)*

Policy Title (and number)				**Version and Date**	
Policy Author					
An (e)quality impact assessment is a process designed to ensure that policies do not discriminate or disadvantage people whilst advancing equality. Consider the nature and extent of the impact, not the number of people affected.					
Who may be affected by this document?					
Patients/ Service Users ☐	Staff ☐	Other, please state… ☐			
Could the policy treat people from protected groups less favorably than the general population? ***PLEASE NOTE: Any 'Yes' answers may trigger a full EIA and must be referred to the equality leads below***					
Age	Yes ☐ No☐	Gender Reassignment	Yes ☐ No☐	Sexual Orientation	Yes ☐ No☐
Race	Yes ☐ No☐	Disability	Yes ☐ No☐	Religion/Belief (non)	Yes ☐ No☐
Gender	Yes ☐ No☐	Pregnancy/Maternity	Yes ☐ No☐	Marriage/ Civil Partnership	Yes ☐ No☐
Is it likely that the policy could affect particular 'Inclusion Health' groups less favourably than the general population? (substance misuse; teenage mums; carers[1]; travellers[2]; homeless[3]; convictions; social isolation[4]; refugees)					Yes ☐ No☐
Please provide details for each protected group where you have indicated 'Yes'.					
VISION AND VALUES: Policies must aim to remove unintentional barriers and promote inclusion					
Is inclusive language[5] used throughout?					Yes ☐ No☐ NA ☐
Are the services outlined in the policy fully accessible[6]?					Yes ☐ No☐ NA ☐
Does the policy encourage individualised and person-centred care?					Yes ☐ No☐ NA ☐
Could there be an adverse impact on an individual's independence or autonomy[7]?					Yes ☐ No☐ NA ☐
EXTERNAL FACTORS					
Is the policy a result of national legislation which cannot be modified in any way?					Yes ☐ No☐
What is the reason for writing this policy? (Is it a result in a change of legislation/ national research?)					
Who was consulted when drafting this policy?					
Patients/ Service Users ☐	Trade Unions ☐	Protected Groups (including Trust Equality Groups) ☐			
Staff ☐	General Public ☐	Other, please state… ☐			
What were the recommendations/suggestions?					
Does this document require a service redesign or substantial amendments to an existing process? ***PLEASE NOTE: 'Yes' may trigger a full EIA, please refer to the equality leads below***					Yes ☐ No☐
ACTION PLAN: Please list all actions identified to address any impacts					
Action				**Person responsible**	**Completion date**
AUTHORISATION: By signing below, I confirm that the named person responsible above is aware of the actions assigned to them					
Name of person completing the form			**Signature**		
Validated by (line manager)			**Signature**		

Clinical and Non-Clinical Policies – New Data Protection Regulation (NDPR)

Torbay and South Devon NHS Foundation Trust (TSDFT) has a commitment to ensure that all policies and procedures developed act in accordance with all relevant data protection regulations and guidance. This policy has been designed with the EU New Data Protection Regulation (NDPR) in mind and therefore provides the reader with assurance of effective information governance practice.

NDPR intends to strengthen and unify data protection for all persons; consequently, the rights of individuals have changed. It is assured that these rights have been considered throughout the development of this policy.

Furthermore, NDPR requires that the Trust is open and transparent with its personal identifiable processing activities and this has a considerable effect on the way TSDFT holds, uses, and shares personal identifiable data. The most effective way of being open is through data mapping. Data mapping for NDPR was initially undertaken in November 2017 and must be completed on a triannual (every 3 years) basis to maintain compliance. This policy supports the data mapping requirement of the NDPR.

For more information:

- Contact the Data Access and Disclosure Office on dataprotection.tsdft@nhs.net
- See TSDFT's Data Protection & Access Policy
- Visit our GDPR page on ICON