

NURSE LED REMOVAL OF CHEST DRAINS IN ADULT PATIENTS

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Introduction

Adults with a chest drain in situ and have had the medical/surgical decision to remove the drain.

This guideline is for use by the following staff groups :

Qualified nursing and medical staff

Lead Clinician(s)

Heather Lloyd

Pleural Lead Nurse

Reviewed and approved by Respiratory Directorate Meeting on:

17th October 2024

17th October 2027

Review Date:

This is the most current document and is to be used until a revised version is available

Key amendments to this guideline

Date	Amendment	By:
17/03/2008	Guideline reviewed by Clinical Lead with no Amendments made	Anne Schlattl
04/02/2009	Amendment made to Competencies	Anne Schlattl
22/07/2013	Guideline reviewed by Clinical Lead with minor Amendment made - regarding using steristrips to aid wound closure – string sutures are no longer used.	Heather Lloyd
02/02/2016	Document extended for 12 months as per TMC paper approved on 22 nd July 2015	TMC
Oct 16	Further extension approved as per TMC paper on 22 ND July 2015	TMC
May 17	Reviewed with no amendments	Heather Lloyd
December 2017	Sentence added in at the request of the Coroner	
March 2020	Document extended for 6 months whilst under review	Heather Lloyd
February 2021	Document extended as per Trust agreement 11.02.2021	
January 2022	Document approved with no significant changes	Heather Lloyd
October 2024	Document approved with no significant changes	Heather Lloyd

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Introduction

Chest drains are removed when either air leak or fluid drainage has ceased/slowed and a satisfactory chest X-ray has been obtained and reviewed by medical staff. This decision is made by the medical staff and **documented in the Electronic Patient Record**. Medical staff will also check a repeat CXR for evidence of pneumothorax post chest drain removal.

Details of Guideline

Competencies required

Medical elements of the procedure to be carried out by a **senior resident doctor or specialist nurse practitioner**.

Nursing elements of the procedure are to be carried out by a Registered Nurse (RN) adult who is a band 5 nurse and above who has worked in a respiratory area for a minimum of 6 months, who has undergone a period of assessment to certify competency, and is working on the wards where adult patients with chest drains are a regular occurrence, i.e. at least 5 drains per month. This competency will be at least 3 chest drain removals supervised by either a senior resident doctor (SPR) or a nurse who is already competent in the procedure. The second nurse, when required, must be a RN (adult).

Patient Group cover

Adults with chest drains on respiratory wards within the Trust with a documented decision to remove the drain.

Guideline

Equipment required

- Trolley
- Sterile Gloves
- Apron
- Goggles/face visor
- Stitch cutter
- Sterile swab
- Non-adherent dressing
- Adhesive surgical dressing
- Large reinforced yellow bag and tie
- Steristrips

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It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet

Procedure	Rationale	Who
Decision to remove Chest drain documented in EPR	Lung reinflated/fluid drained or chest drain not in optimal position	Doctor
Inform patient about the procedure and provide reassurance	To gain patients consent and co-operation	RN
Ensure analgesia is given prior to procedure.	To maintain patients comfort	RN
Check baseline observations of TPR, BP and oxygen saturations are recorded	To gain baseline measurement.	RN
Perform hand hygiene and put on protective clothing	To prevent cross infection and contamination of wound site.	RN
Remove dressing. Assess viability of exit site to close without suture or with application of a steristrip.	To ensure that the site can effectively be closed on removal of drain. If there is no closure suture and wound requires one, doctors to perform removal to ensure site is sutured.	RN
Perform hand hygiene and apply gloves	To prevent cross infection and contamination of wound site.	RN
For small bore drains cut securing suture/s. Keep hold of drain tube	To enable drain to be removed	RN
Instruct patient to take a deep breath in and hold it.	To prevent the complication of atmospheric air movement into the pleural cavity	RN
Pull drain out and cover with swab. Allow patient to breathe normally. If necessary apply steristrip to aid wound closure.	To remove drain safely	RN
Ensure wound is clean and cover with sterile adherent dressing	To prevent wound infection.	RN
Perform TPR, BP and oxygen saturations post removal of drain.	To ensure no deterioration in respiratory status has occurred.	RN

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Ensure patient is comfortable and nurse call is within easy reach.	To enable patient to seek help if required.	RN
Dispose of used equipment as per hospital policy	To prevent cross infection and sharps injury.	RN
Perform hand hygiene	To prevent cross infection	RN
Document procedure in EPR	Accurate record of patients treatment	RN
Chest X-ray post procedure	To ensure no pneumothorax	Doctor
Chest X-ray to be reviewed	To ensure no pneumothorax	Doctor

Monitoring Tool

Annual random audit of medical notes by Specialist Practitioner in Medicine attached to respiratory team

STANDARDS	%	CLINICAL EXCEPTIONS
All patients have informed consent	100	
Chest drain removal to be documented in notes	100	
Any complications documented in the notes	100	

References

- BTS guidelines on the insertion of Chest drain. **Thorax** 2003: 58(suppl ii): ii 53-59
- Allibone, Liz Nursing management of chest drains. **Nursing Standard**: vol 17(22), Feb 2003, 45-56.
- Avery, Sarah Insertion and management of chest drains. **Nursing Times**: vol 96(37), sept 2000
- Christensen, 2002 M Nurse-led chest drain removal in a cardiac high dependency unit. **Nursing in critical care** 7(2), 67-82
- Mallett J, Dougherty L 2000. **Royal Marsden Manual of Clinical Nursing procedures**. 5th edition. Oxford, Blackwell

Contribution List

Key individuals involved in developing the document

Name	Designation
Heather Lloyd	Pleural Lead Nurse

Circulated to the following individuals for comments

Name	Designation
Clare Hooper	Consultant Physician (WRH)
Abhi Lal	Consultant Physician (Alex)
Danielle Stocker	Respiratory Nurse Practitioner (WRH)
Stephanie Cooper	Physician Associate Respiratory (WRH)
Mini Isaac	Acute Respiratory Unit Ward Manager

Circulated to the following CD's/Heads of dept for comments from their directorates / departments

Name	Directorate / Department

Circulated to the chair of the following committee's / groups for comments

Name	Committee / group

Supporting Document 1 - Equality Impact Assessment Tool

To be completed by the key document author and included as an appendix to key document when submitted to the appropriate committee for consideration and approval.

Please complete assessment form on next page;



Herefordshire & Worcestershire STP - Equality Impact Assessment (EIA) Form
Please read EIA guidelines when completing this form

Section 1 - Name of Organisation (please tick)

Herefordshire & Worcestershire STP		Herefordshire Council		Herefordshire CCG	
Worcestershire Acute Hospitals NHS Trust	X	Worcestershire County Council		Worcestershire CCGs	
Worcestershire Health and Care NHS Trust		Wye Valley NHS Trust		Other (please state)	

Name of Lead for Activity	Heather Lloyd
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Details of individuals completing this assessment	Name	Job title	e-mail contact
	Heather Lloyd	Pleural Lead Nurse	Heather.lloyd5@nhs.net
Date assessment completed	07/10/2024		

Section 2

Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.)	Title: WAHT-NUR-058
What is the aim, purpose and/or intended outcomes of this Activity?	To ensure chest drains are removed safely by appropriately trained/competent staff
Who will be affected by the development & implementation of this activity?	<input type="checkbox"/> Service User <input checked="" type="checkbox"/> Staff <input checked="" type="checkbox"/> Patient <input type="checkbox"/> Communities <input type="checkbox"/> Carers <input type="checkbox"/> Other _____ <input type="checkbox"/> Visitors <input type="checkbox"/>
Is this:	<input type="checkbox"/> Review of an existing activity <input type="checkbox"/> New activity <input type="checkbox"/> Planning to withdraw or reduce a service, activity or presence?
What information and evidence have you reviewed to help inform this assessment? (Please name sources, eg demographic information for patients / services / staff groups affected, complaints etc.)	
Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required)	
Summary of relevant findings	

Section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups outlined below. Please tick one or more impact box below for each Equality Group and explain your rationale. Please note it is possible for the potential impact to be both positive and negative within the same equality group and this should be recorded. Remember to consider the impact on e.g. staff, public, patients, carers etc. in these equality groups.

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Age		X		Policy applies to adults over the age of 18
Disability		X		Policy applies to adults irrespective of disability
Gender Reassignment		X		Policy applies to adults irrespective of gender reassignment
Marriage & Civil Partnerships		X		Policy applies to all adults irrespective of marital status
Pregnancy & Maternity		X		Policy applies to adults irrespective of pregnancy/maternity status
Race including Traveling Communities		X		Policy applies to all adults irrespective of race
Religion & Belief		X		Policy applies to adults irrespective of religion and beliefs
Sex		X		Policy applies to adults irrespective of sex/gender identity
Sexual Orientation		X		Policy applies to adults irrespective of sexual orientation
Other Vulnerable and Disadvantaged Groups (e.g. carers; care leavers; homeless; Social/Economic deprivation, travelling communities etc.)		X		Policy applies to all adults
Health Inequalities (any preventable, unfair & unjust differences in health status between groups, populations or individuals that arise from the unequal distribution of social, environmental & economic conditions within societies)		X		Policy applies to adults

Section 4

What actions will you take to mitigate any potential negative impacts?	Risk identified	Actions required to reduce / eliminate negative impact	Who will lead on the action?	Timeframe
	None			

How will you monitor these actions?	
When will you review this EIA? (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation)	

Section 5 - Please read and agree to the following Equality Statement

1. Equality Statement

1.1. All public bodies have a statutory duty under the Equality Act 2010 to set out arrangements to assess and consult on how their policies and functions impact on the 9 protected characteristics: Age; Disability; Gender Reassignment; Marriage & Civil Partnership; Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual Orientation

1.2. Our Organisations will challenge discrimination, promote equality, respect human rights, and aims to design and implement services, policies and measures that meet the diverse needs of our service, and population, ensuring that none are placed at a disadvantage over others.

1.3. All staff are expected to deliver services and provide services and care in a manner which respects the individuality of service users, patients, carer’s etc, and as such treat them and members of the workforce respectfully, paying due regard to the 9 protected characteristics.

Signature of person completing EIA	Heather Lloyd
Date signed	07/10/2024
Comments:	
Signature of person the Leader Person for this activity	
Date signed	
Comments:	



Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	NO
2.	Does the implementation of this document require additional revenue	NO
3.	Does the implementation of this document require additional manpower	NO
4.	Does the implementation of this document release any manpower costs through a change in practice	NO
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	NO
	Other comments:	NONE

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval