



www.brit-thoracic.org.uk

Guidance for the implementation of local Trust policies for the safe insertion of chest drains for pleural effusions in Adults, following the NPSA Rapid Response Report– NPSA/2008/RRR003

A British Thoracic Society Statement

Introduction

The British Thoracic Society (BTS) is committed to ensuring that best standards of care are available universally for patients with respiratory disease. It is aware that many Respiratory Physicians are being asked by their Trusts to help in the introduction of new local policies to ensure chest drain insertions are being performed in a safe environment by appropriately trained staff.

Local solutions, aimed at the implementation of NPSA guidance, are likely to vary enormously from one Trust to another and need to be tailored to the individual circumstances of each hospital. Trusts must provide adequate financial support to allow adequate local training and service improvements to ensure a safe environment for their patients and staff.

This document focuses on chest drain insertion for pleural effusions within the medical directorate. It does not address chest drain management in surgery or trauma. Hopefully the suggestions listed below will be valuable throughout the Trust.

General

Each Trust should identify a lead physician as the named responsible person for the medical directorate chest drain service (usually this will be a Respiratory Physician). That person should have clearly-defined advisory, training and monitoring roles, including audit, and protected time to perform those duties, especially if that person is also responsible for other chest drain services in the Trust.

Trusts should be encouraged to maintain lists of doctors who are trained to a sufficient standard of proficiency for independent practice.

It is recognised that A & E, ITU, Radiology and Surgery have different needs and will need to develop their own policy for training and supervision.

Some large respiratory units might wish to set up an on-call pleural team to insert and manage all patients requiring chest drains on their wards. This is likely to require Trust investment but result in bed day savings. It is recognised this will not be possible for many smaller units, where patients will continue to be managed by general medical teams. Regardless of the local solution, early respiratory input is encouraged.

Training

As respiratory specialists we are responsible for overseeing training and setting competency levels. There are mannequins on the market, which cost approximately £1000, which Trusts could purchase and place in their clinical procedures lab.

All trainees should be initially supervised by a doctor competent in this procedure. They should all have log books recording the number of procedures performed and be signed off by the Trust lead as competent in safe chest drain insertion. This could be done after suitable training and an assessment in the local clinical skills lab on a mannequin. This signature would then allow them to insert drains unsupervised throughout the NHS.

[NB: There should be an accepted standard across Trusts so that when signed off, an individual is competent across Trusts, not in one Trust only].

Location for inserting chest drains

Although not mentioned in the NPSA bulletin the incidence of iatrogenic pleural infection secondary to drain insertion is too high and policies addressing this serious issue are strongly encouraged.

Ideal locations would include a sterile treatment room on a medical ward or the bronchoscopy suite (with patients for pleural procedures placed at the end of the list). Sterile gowns and drapes should be mandatory. Skin sterilisation with two applications of alcohol-based skin preparation is recommended.

Patients with chest drains should be managed in a suitable environment with nurses that are trained in chest drain management.

Consent

Written formal consent should always be obtained. A patient information leaflet is highly recommended.

Image guidance

This is highly desirable in all but the most acute emergencies. This is likely to be mandatory in the future. Trusts must properly resource both the availability of ultrasound machines and adequately trained staff to use them.

As many radiology departments will be unable to cope with this increased demand it is likely that Respiratory and General medical specialists will need to become proficient in pleural ultrasound (level 1 competency). The Royal College of Radiologists document on level 1 competency in pleural ultrasound can be found here "Ultrasound Training Recommendations for Medical and Surgical Specialties", Ref No: BFCR(05)2 :

<http://www.rcr.ac.uk/publications.aspx?PageID=310&PublicationID=209>

It should be noted that the practice of marking an 'x' on the patient's skin in the radiology department, for a chest drain insertion to be performed later in another location and potentially a different patient position, could be dangerous. If this is performed, the exact position the patient was in whilst undergoing the ultrasound should be recorded in the patients notes.

There are not sufficient level 1 one day ultrasound courses currently available in the UK for this extra demand. Therefore, local Trusts should be encouraged to support their own radiologists in setting up local courses to train their doctors.

Timing

Just as elective surgery or bronchoscopy doesn't happen immediately, there are few indications for an emergency chest drain insertion for pleural effusions. The use of an intravenous cannula and three way tap is just as effective at relieving immediate symptoms. Referral to the appropriate team, with the correct skills the following morning is better practice.

Equipment

There are currently 11 companies which provide chest drain packs. Organising an open day for these companies to demonstrate their products and deciding on one drain that the Trust will purchase would mean that everyone would become familiar with only one kit within each Trust and thus reduce confusion.

Conclusions

BTS supports ultrasound guided placement of all elective drains for pleural effusions and believes Respiratory medicine is best placed to coordinate a quality service. Respiratory medicine consultants should work with General physicians in providing training & competency assessment.

British Thoracic Society
17 Doughty St
London WC1N 2PL
bts@brit-thoracic.org.uk

24/11/08

Date: 24 November 2008