

# Improved efficiency and safety Chest Drain boxes

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Chest Drain kits are no longer available to order and the medical team spend time locating the equipment needed to perform pleural procedures. The equipment is often not easily accessible, and the team frequently have to leave the ward to gather the required kit. As part of the improvement, a chest drain kit was created using Set-Up Reduction.

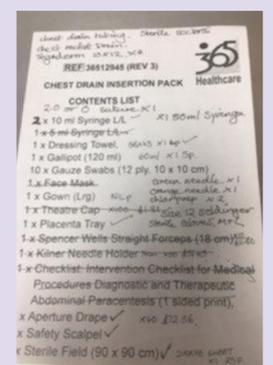
## SMART Aim

To reduce the time it takes for our medical teams to locate and put together the equipment necessary to perform thoracentesis (insertion of chest drains) for patients. The timeframe set was the end of April 2022.



## Plan

Using the 5S principles, the team reviewed the current chest drain kit to understand what items were **necessary** and which were **unnecessary**. There were 6 items which were duplicated and removed. The plan was to create a chest drain box fit for purpose.



## Do

The team were able to identify the items required within the kit and used the process of set-up reduction to reduce the time spent locating items when needing to perform thoracentesis by creating a chest drain kit box. The box is easily portable as procedures are currently performed at the patient's bedside on the wards. A chest drain box was filled with the necessary items including a checklist and was ready to test. A standard process has been produced for the teams to agree how and when the kit will be topped up.



## Study

PDSA cycles were used to test the kit box within the teams. Feedback has been positive with additional items being added during the testing phase. The chest drain boxes are a great success and have increased efficiency and patient safety as thoracentesis is sometimes performed in an emergency where time is crucial. The collection time for all chest drain items has been reduced to under a minute. The Housekeeper and HCA take 5 to 7 minutes to replenish the kit.



## Act

4 kit boxes will be produced for use, and 2 additional kit boxes will be rolled out to the Short Stay ward. The standard process will be circulated to ensure colleagues know their responsibilities around use and restocking of the kit boxes.