

# TRANSILLUMINATION OF THE CHEST

## INDICATION

- Suspected pneumothorax (e.g. any deterioration in clinical condition, particularly if ventilated)

## EQUIPMENT

- Cold light source
- Black drapes to cover incubator

## PROCEDURE

- Dim lights
- Expose baby's chest and abdomen
- Remove all non-essential monitoring leads
- Cover outside of incubator with black drapes
- Place cold light tip perpendicular to and touching baby's skin
- Shine light from the side, comparing right side with left (5<sup>th</sup> position shines through the liver and is used as a control)
- Clean cold light tip with an alcohol wipe after use

## DIAGNOSIS

- Pneumothorax confirmed if chest shines bright red
- Compare both sides of chest (babies can have bilateral pneumothoraces)
- Compare degree of brightness with that seen over liver
- liver and lung without pneumothorax will shine dull dark red

***Caution – false positive diagnoses may be made in extremely preterm babies and those with pulmonary interstitial emphysema  
Transillumination may be unreliable in babies with increased thickness of the chest wall (macrosomic term babies and those with chest wall oedema)***

## ACTION

- If baby is unstable or haemodynamically compromised, once pneumothorax is confirmed on transillumination, perform immediate needle thoracocentesis in 2<sup>nd</sup> intercostal space, midclavicular line on the side of the chest that shone brightly. **Do not** wait for a chest X-ray