NG Tube (NGT) Never Event

Patient admitted to Critical Care post-urological procedure and was fed through a misplaced NG tube which resulted in right hydro-pneumothorax, right sided intercostal chest drain, prolonged critical care stay but the patient eventually got better and was discharged home.

Patient admitted to critical care post-urological procedure for level 3 support for sepsis. Patient’s past medical history consists of asthma, epilepsy and learning difficulties. NG tube was inserted on three separate occasions during the patient’s stay as on the first two occasions it accidentally fell out. On the third occasion after a failed nursing attempt, NG tube was re-inserted by a senior doctor under direct visualization with laryngoscopy. They couldn’t get an NG aspirate, hence mobile X-ray done and interpreted as in incorrect place, communicated to the nurse verbally as there was time pressure to give anti-epileptic medication. The critical care unit was busy at the time. Patient was unfortunately fed through this NG tube which then subsequently caused deterioration in patient’s respiratory status unrecognized for 12 hours. Three doctors reviewed the chest X-ray but no consensus hence CT scan was performed which showed right hydro-pneumothorax. Right sided chest drain was inserted promptly and the NG tube was removed. Patient was treated for a few more days with ventilation and antibiotics and subsequently was discharged home.

1) Medical staff incorrectly reviewed CXR images for NGT confirmation on the mobile X-Ray machine rather than on the computer.
2) Medical staff failed to accurately confirm NGT position on CXR according to the four criteria recommended by the NPSA.
3) Documentation in relation to NGT position confirmation was incomplete thus not following local and national guidance and safety procedures.
4) Incorrect tube positioning and subsequent feed administration into the lungs was not recognized for 12 hours despite deterioration in patient’s respiratory function. This was due to the reassuring absence of NG aspirates coupled with the fact that the medical team determined other explanations for worsening lung consolidation and lack of appropriate ventilator synchronization.

Trust wide communication regarding guidance around confirming NGT position to ensure that all medical staff who interpret CXRs for NGT placement undergo competency training via online NGT training modules available from e-LfH (Health Education England Program).

Hot reporting of CXRs for NGT position confirmation by Radiology to further ensure correct interpretation of CXRs.

Trust has developed its own CXR for NGT teaching module with associated assessment tool (using review of about 20 CXRs) to supersede the e-LfH module in the future as a local long-term training and assessment option for clinicians and is in pilot stage.

All Critical Care and trust nursing staff involved in the care of NG tubes to undergo trust NGT training session and competency assessment to ensure optimum practice throughout the trust; this is to be supported via the nutrition specialist nurse and the nutrition link nurses and to be completed trust wide.

Critical Care and Trust NGT procedure policies updated to reflect the changes.

Shared Learning

1. Incident discussed together with CXR review during ITU Multi-Disciplinary Team meeting with all ITU trainees.
2. Incident presented at local Grand round teaching event to update staff on lessons learned and recommendations from this report.
3. Incident shared at the Regional critical care network meeting and nationally on the FICM website.
4. Radiographers made aware that mobile X-Ray machine is not to be allowed to be used for CXR interpretation and ‘Not for diagnostic use’ label is placed on these machines.
5. Lessons learned and actions from this investigation to be shared through local and trust wide governance structures.

Welcome to our safety learning bulletin, which aim to disseminate learning that has been shared from adverse incidents

We invite you to submit anonymous summaries of incidents that have occurred in your local units that have important lessons that we can all learn from to improve patient safety.

If you have an incident and learning that you would like to share please submit using the SBAR format.

We welcome any feedback regarding our shared learning process.