

Use of Cortrak[®] – an electromagnetic sensing device in placement of enteral feeding tubes

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Bedside positioning of enteral feeding tubes necessitates radiological confirmation with the occasional need for endoscopy or fluoroscopy for post-pyloric placement. A technique that confirms position of the tube tip in real time may improve placement results, time taken for tube placement and reduce the need for confirmatory X-rays. This would result in less exposure to radiation and decreased cost.

Cortrak[®] (Viasys Healthcare, UK) is an electromagnetic sensing device that tracks and displays the path of feeding tubes during the placement procedure. The implementation of this method may assist the bedside placement of feeding tubes and may help the continued improvement in our nutritional practices in line with clinical governance requirements⁽¹⁾.

All patients requiring either nasogastric (NG) or nasojejunal (NJ) tubes for enteral nutrition were included. A Corflo NG or NJ tube with a Cortrak[®] stylet was inserted and its position monitored using the Cortrak[®] sensor. NG tube position was also confirmed using the auscultation technique, aspiration and chest X-ray. Postpyloric (NJ) tube position was confirmed using abdomen X-ray. Data relating to the difference in time taken for tube insertion and confirmation using Cortrak[®] and X-ray was recorded. Results were presented as median with inter-quartile range (IQR).

Twenty patients, male:female 12:8, age 65 (IQR 56–73) years were recruited. NG tubes were inserted in ten patients, while the remaining had NJ tubes. Cortrak[®] confirmed the position of NG and NJ tubes in all twenty patients. Time taken for NG tube insertion (median 0.48 (IQR 0.34–1.09) min) was significantly less than that for NJ tubes (median 6.16 (IQR 3.55–9.03) min; $P=0.001$). X-ray confirmed tube tip positions in all twenty patients, but the time taken for getting the X-rays done and reviewed resulted in a delay of median 50 (IQR 45–65) min. Auscultation test was positive in all NG tube placements. Fluid aspiration was successful in five and three out of ten of NG and NJ placements respectively.

Cortrak[®] demonstrates 100% accuracy in confirming pre and post-pyloric tube placements and can be used for confirmation of tube tip position.

1. UKNPSA guideline; <http://www.npsa.nhs.uk>