Emergency Medicine Society of South Africa

PRACTICE GUIDELINE
EM010

VERIFICATION OF ENDOTRACHEAL TUBE PLACEMENT

EMSSA recognises the important role that Endotracheal intubation plays in the care of a significant proportion of our patients, in either the pre- or in-hospital environment. However, verification of correct placement of endotracheal tubes varies amongst institutions and individuals. This practice guideline details the recommended steps to correctly verify the placement of an endotracheal tube.

Excluding the cover page, this Practice Guideline is **3** pages.

Date of publication:	October 2009
Date of review:	September 2011
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Confirmation of endotracheal tube placement should be completed in **all** patients at the time of initial intubation.

During intubation, although direct visualization of the endotracheal tube passing through the vocal cords into the trachea should constitute firm evidence of correct tube placement, additional techniques must be used to confirm proper endotracheal tube position.

Physical examination methods are not reliable by themselves to confirm endotracheal tube placement, although they form an important part of the overall assessment.

Pulse oximetry and chest radiography are not reliable by themselves to confirm endotracheal tube placement, although they form an important part of the overall assessment.

End-tidal carbon dioxide detection is the most accurate means to evaluate endotracheal tube position in patients who have adequate tissue perfusion. For patients in cardiac arrest, or peri-arrest, end-tidal carbon dioxide determination may be less accurate. In these situations, other methods should be used.

Endotracheal tubes may become displaced due to patient or equipment movement. Continuous assessment continuous end-tidal carbon dioxide monitoring is ideal. Reconfirmation of endotracheal tube position should be undertaken immediately in all patients when their clinical status changes, or when there is concern regarding proper location of the endotracheal tube.

In preparation for transfer of intubated patients, the attached form should be completed to ensure adequate checking and documentation of the patient's status.

ENSURE THAT YOU HAVE DOCUMENTED ALL POINTS IN PATIENT'S CASE NOTES

DATE: | TIME:

ONLY **X** OR ?

CONFIRMATION OF ET TUBE PLACEMENT

Physical measures (ensure you have documented visualisation, 5 point auscultation, chest rise, tube size and length at lips)	
Continuous End Tidal CO2 monitoring	
CXR	

DOCUMENTATION

Ensure you have documented time of intubation & by whom (name)	
Indication(s) for intubation (clinical parameters) & pre-intubation GCS	
Blood gas investigations results before and after intubation	
Drugs (& times given) used for Rapid Sequence Induction / non-RSI induction	
Whether simple or difficult intubation	

VENTILATOR REQUIREMENTS

T-PIECE SHOULD NEVER BE USED FOR TRANSFERS

Ensure you have documented ventilator settings (Mode/TV/RR/FiO2/Airway Pb/PEEP/IE Ratio)	
Calculate O_2 requirements according to SOP	

TRAVEL DRUG REQUIREMENTS

NEVER MIX MEDICATIONS IN SAME INFUSION BAG / SYRINGE

Ensure drugs given via infusion (concentration, rate and start time) & boluses (dose and time) are documented	
Ensure you have adequate medications (including analgesia and sedation) (infusion and/or repeat boluses) to complete the journey safely, allowing for unexpected delays	

EN ROUTE

Ensure you have documented departure observations and time	
Continuous monitoring including at least ETCO2/O2 Sats/ECG/BP/FiO2/GCS	
Interventions documented (including time)	

ARRIVAL AT RECEIVING HOSPITAL

Arrival observations, time & tube position confirmed & documented	
All case notes handed over to receiving staff	