

LAC+USC MEDICAL CENTER

DEPARTMENT OF NURSING SERVICES AND EDUCATION

**ENTERAL FEEDING TUBE INSERTION  
USING AN ELECTROMAGNETIC PLACEMENT DEVICE (CORTRAK\*) PROCEDURE**

**PURPOSE:**

To outline the nursing responsibilities and guidelines for appropriate insertion of nasogastric (NG) enteral feeding tubes using Electromagnetic technology.

**Circumstances under which RN may perform function:**

Specially trained RNs are authorized to insert enteral feeding tubes using Electromagnetic technology, after completion of training and providing evidence of competency. Must have a provider order to insert enteral feeding tubes into the stomach or small bowel of adult patients, using the Cortrak Enteral Access System (EAS).

**SUPPORTIVE DATA:**

The Cortrak\* Enteral Access System (EAS) is a 3-D viewing of the feeding tube during the process of insertion at the bedside using electromagnetic technology. The stylet tip generates signals, and the computer screen displays the graphic representation of the feeding tube position as it passes through the alimentary tract. It tracks the tip of the feeding tube and enables visualization of the feeding tube path from the esophagus to the preferred feeding location, pre- or post-pyloric.

**A. X-ray is required to confirm placement.**

**B. Contraindications: include, but are not limited to:**

- Surgery, trauma, or abnormalities to any portion of the nasal/oral GI tract, including head/neck, facial/nasal passages, oral cavity, esophageal, stomach, and intestinal abnormalities
- Bleeding abnormalities
- Esophageal varices
- Recent gastric bypass or banding
- Other GI or anatomic anomalies

**C. For difficult to insert tubes, notify provider for possible tube placement under other methods as deemed appropriate by the provider.**

**SUPERVISION:**

The designated provider or nurse leader who demonstrates expertise on the use of Cortrak\* EAS is responsible for supervising the trained clinician (provider or RN) in the insertion, of the enteral feeding tube.

**EQUIPMENT LIST:**

- a. Personal protective equipment
- b. Enteral Access System
- c. Small bore feeding tube 8 Fr or greater
- d. Water soluble lubricant (Lubricant, 1-2 packets)
- e. 60ml Syringe
- f. Securement device
- g. Towel

### **Additional Optional Supplies/Equipment:**

- a. Glass of water with straw if age appropriate and not contraindicated
- b. Oral suctioning set up available in room
- c. Tongue blade
- d. 10mL saline syringe

### **Bedside Primary Nurse's Responsibility**

1. The bedside Primary RN is responsible for obtaining the order to place the feeding tube via the CORTRAK\* System.
2. Notify the trained CORTRAK\* nurse of the order to place feeding tube using the CORTRAK\* System.
3. Gather the supplies listed above prior to the CORTRAK\* trained Clinician arriving to place the tube.
4. Assist the CORTRAK\* trained Clinician with procedure.
5. Once tube has been placed; verify X-Ray is ordered by the primary medical team.
6. Once X-Ray is completed, notify the primary team to confirm correct placement.
7. Verify that the medical team has entered an order (Ok to use enteral feeding tube) before using the tube.
8. Document patient/family education regarding procedure.

### **CORTRAK\* Nurse's Responsibility**

1. The specially trained Nurse placing the CORTRAK\* tube must confirm the order for insertion of enteral feeding tube before starting the procedure.
2. Insert feeding tube using the CORTRAK\* system.
3. Document placement in electronic medical record, include the following:
  - a. Date, time, size (gauge), and length of tube placed
  - b. Location - oral vs. nasal (which nostril)
  - c. Length of catheter tube at nares (in cm)
  - d. Patient tolerance of procedure
  - e. Any sedation/analgesia provided
  - f. Reinforcement of patient/family education of the procedure

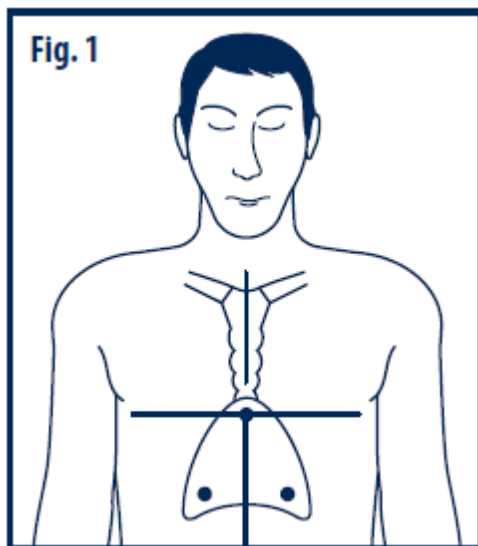
### **CORTRAK\* Trained Nurse, Procedure Process Accountability:**

1. Apply personal protective equipment
2. Explain the procedure to the patient/family
3. Raise the height of the bed to a comfortable level for the Clinician
4. Inspect the condition of the patient's nasal and oral cavity
5. Position patient as appropriate (**NOTE:** Do not hyperextend neck)
6. Place towel over patient's chest
7. Remove NG/decompression tube if suctioning is no longer required
8. Begin the placement of the enteral feeding tube
9. Wipe all components of the CORTRAK\*® System down with a low-level disinfectant (e.g., Sani-wipes or equivalent).

## **Procedure:**

### **Preparation:**

1. Confirm the order for insertion of enteral feeding tube using the Cortrak\* EAS
2. Gather the supplies listed above
3. Perform hand hygiene
4. Apply PPE
5. Explain the procedure to the patient/family
6. Place the height of the bed to a comfortable level
7. Inspect the condition of the patient's nasal and oral cavity
8. Position the patient as appropriate—elevate the head of bed 30-40° (Do NOT hyperextend the neck)
9. Place towel over patient's chest
10. Remove NG/decompression tube if suctioning is no longer required
11. Position the Monitor on the Cortrak\* EAS in a position that permits easy viewing of the display during the feeding placement procedure:
  - a. Position the equipment sufficiently close to the patient so the length of the Transmitting Stylet will allow proper feeding tube placement
  - b. Ensure that the All-in-One Monitor and the Smart Receiver Unit (SRU) are spaced at least 2 feet apart during the placement (improper setup of the All-in-One Monitor, Interconnect Cable, SRU, and/or Power Supply relative to each other may cause electromagnetic interference and affect the track).
12. Turn on Cortrak\* All-in-One Monitor and enter Operator log in and patient information.
13. Flush the Cortrak\* feeding tube before placement to activate the lubricant inside the feeding tube to help reduce friction when removing the stylet.
14. Connect the proximal (orange) end of the feeding tube to the Interconnect cable on the lower right-hand corner of the monitor unit, ensuring that the *arrows are both in the same direction*
15. Palpate the lower sternum and follow it to the xiphoid process. Place the Receiver as shown with the vertical line marked on the Receiver aligned with the mid-sagittal line of the patient. The top of the Receiver is positioned at the xiphoid process (Fig. 1)



### **\*NOTE(S):**

\*It must be parallel with the spine and centered along midline to ensure reliable tracking of the tube during placement.

\*If receiver unit is placed *too far below* the xyphoid, the feeding tube will appear to cross the horizontal axis too early, suggesting possible lung placement.

\*If the unit is placed *too high* over the sternum, lung placement may be missed.

16. Secure the receiver on the patient so that it does **not** move during the procedure.

\*Movement of the receiver unit alters the alignment and the relationship of the track displayed on the monitor unit.

17. Lubricate approximately 6 cm of the end of the tube

### **Placement**

18. Begin inserting the tube until you reach the back of the throat and resistance is met, then press start on the monitor unit or receiver button to begin viewing the tube position.

\*The smart reviewer illuminates a solid green light when the receiver is working properly and flashes green indicating the stylet is functioning.

\*During placement, the display shows:

- 1) Representation of the current relative position of the feeding tube tip
- 2) Representation of the path or track followed by the feeding tube from the start of the placement
- 3) The time since the start of the placement procedure

These representations include both anterior, depth cross-sectional and lateral views.

19. Follow the path of the tube tip by observing the tracing of the green dot on the anterior view screen of the monitor.

\*If tracing veers sharply into the upper right or left quadrants, slowly retract the feeding tube. This finding may indicate that the tube is in the bronchus. Slowly pulling back the tube clears the tracing of the placement. Continue placement procedure following the new tracing.

20. Ensure the pathway through the stomach resembles a backward C-shape. If *stomach placement is desired*, the procedure is complete at this point.

### **Nasoduodenal Placement**

21. Continue advancing tube across the midline on the screen if post-pyloric position is desired.

22. Instill a bolus of air into the tube when the tip is nearing the pylorus— this may help facilitate relaxation of the pylorus so the tube can pass through.

### **Nasojejunal Placement**

23. Continue advancing the tube so that it crosses over the midline on the screen again, if jejunum placement is desired.

### **Completion of the Insertion Procedure**

24. Once procedure is completed, press *End* on the monitor display or the orange button on the receiver unit. This will stop the recording of the insertion
25. Disconnect the stylet from the interconnect cable and remove stylet from feeding tube.

\* Do not discard stylet. Clean stylet in warm water or alcohol pad and keep in original package or aerated container. Label accordingly.

26. Confirm tube placement immediately after insertion via chest X-ray.
27. Wipe all components of the Cortrak\* EAS down with a low-level disinfectant.

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## REFERENCES

CORTRAK\* Operator's Guide (IFU)

CORTRAK\* Feeding Tube IFU

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