PROCEDURE (TASK): ASPIRATION OF SECRETIONS - TRACHEOBRONCHIAL SPUTUM COLLECTION
PEDIATRICS/NEONATAL

I. KEY PERFORMANCE ELEMENTS

<table>
<thead>
<tr>
<th>Procedural Element (Step)</th>
<th>Description of Satisfactory Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Selects, gathers and assembles appropriate equipment, maintains asepsis.</td>
<td>Selects catheter appropriate to size of the internal diameter of airway.</td>
</tr>
<tr>
<td>5. Hyperoxygenates and hyperinflates patient</td>
<td>Employs manual resuscitator for spontaneously breathing patient.</td>
</tr>
<tr>
<td>Allows sufficient time for oxygen equilibrium in blood.</td>
<td>Limits $F_1O_2$ in infants and adult patients with chronic hypercarbia.</td>
</tr>
</tbody>
</table>

II. REQUISITE PERFORMANCE VARIABLES:

The student is expected to demonstrate proficiency in aspiration of secretions and sterile sputum collection in pediatric and neonatal patients.

- straight catheters
- closed system catheters
- and any other equipment as specified in the course objectives.

III. ADDITIONAL EVALUATION CRITERIA:

Upon completion of this procedure the student will insure that the airway is clear to auscultation and that the patient has been restored to pre-procedure therapy.

IV. ORAL REVIEW QUESTIONS

1. Describe eight or more hazards of endotracheal or oro-nasotracheal suctioning; for each hazard specify a method of minimizing or eliminating the detrimental effects on the patient.

2. What range of wall and portable suction levels are appropriate for:
   - newborns?
   - children?
3. How does one determine the appropriate size catheter to be used with an artificial airway? Why is this relationship important? What maximum size catheter (French) would you want to employ to suction an endotracheal tube with an internal diameter of 3mm?

4. Describe the rationale and design characteristics of two specialty catheters for suctioning.

5. What is the best possible method for clearing large amounts of secretions localized in a specific portion of a large airway?

V. SCENARIO QUESTIONS:

A. Outline a procedure to be followed in the clinical situation described below:

A premature infant on a neonatal ventilator has a sudden desaturation and bradycardia experience. The nurse removes the patient from the ventilator and tries to "bag" through the tube. She is unable to improve the saturation or bradycardia.

B. You are suctioning a neonate in the intensive care unit when you notice on the patient's bedside cardiac and hemodynamic monitor, that the heart rate and the blood pressure has dropped significantly. What may have caused this phenomenon?

C. A fellow practitioner remarks to you that he "couldn't get back the lavage" during the last suction procedure. Does that mean he should use more lavage, more suction pressure, suction less frequently or what? Explain your answer.

D. You are having difficulty passing a suction catheter through an infant's endotracheal tube and it is causing you to spend too much time doing the procedure. What are some possible solutions to this problem?

E. You are suctioning an infant who is on a ventilator when the force of the induced cough causes the oral endotracheal tube to come out to the level of the vocal cords. You push the tube back down and the infant becomes very agitated and does not seem to be able to move any air. What would you do at this time?
# Proficiency Evaluation

**STUDENT:**

**COURSE:**

## Kalamazoo Valley Community College

**Respiratory Therapy Program**

### Proficiency Evaluation

**Procedure (Task):** Aspiration of Secretions - Sputum Collection

- [ ] Therapeutic Procedure
- [ ] Non Therapeutic Procedure

- [ ] Clinical
- [ ] College Laboratory
- [ ] New Patient
- [ ] Peer Application
- [ ] Repeat Procedure
- [ ] Manikin/Analog

### Equipment Utilized:

### Steps in Procedure or Task:

#### Equipment and Patient Preparation

1. Selects, gathers, and assembles appropriate equipment. Insures asepsis.
2. Identifies patient, self, and department.
3. Explains procedure, confirms patient understanding and reassures patient.

#### Implementation and Assessment

4. Auscultates and assesses airway.
5. Hyperoxygenates and hyperinflates patient.
6. Washes hands.
7. Adjusts suction to appropriate level.
9. Dons sterile gloves.
10. Pours sterile water or saline into sterile bowl.
11. Attaches sterile sputum trap to suction source (if applicable).
12. Removes sterile catheter and attaches to suction source or sputum trap.
13. Instills small amount of normal saline down ET tube.
14. Introduces catheter until resistance is met.
15. Withdraws catheter 1-2 cm.
16. Applies suction intermittently while rotating and withdrawing catheter. (limiting time to 15 seconds).
17. Clears catheter with sterile solution.
18. Removes sputum trap; closes trap and properly labels.
20. Reassesses patient, repeats procedure if necessary.
21. Returns patient to pre-procedure therapy and any alarms, reassures patient.

#### Follow-Up

22. Removes, discards, maintains and processes appropriate equipment.
23. Records pertinent data in chart and departmental records.
24. Notifies departmental personnel.

---

Proficiency Eval. #13 (Aspiration of Secretions - Pediatrics/Neonatal) - 83
STUDENT'S COMPREHENSION OF COGNITIVE OBJECTIVES RELATED TO THE PROCEDURE - ASPIRATION OF SECRETIONS - SPUTUM COLLECTION

Upon completion the student will be able to answer oral review questions and discuss clinical scenarios related to the following cognitive objectives:

<table>
<thead>
<tr>
<th>Date</th>
<th>Skill evaluation</th>
<th>Oral Review</th>
<th>Specify Deficiencies:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ability to perform applicable steps in procedure as listed on the front of form without error or omission.</td>
<td>Knowledge of the cognitive objectives listed above.</td>
<td>Specify applicable skill steps that were omitted or done erroneously. Also note any errors in discussing cognitive objectives. Please give enough detail to allow the student to work on specific remediation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Satisfactory</th>
<th>Unsatisfactory</th>
<th>Satisfactory</th>
<th>Unsatisfactory</th>
<th>Satisfactory</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ready for minimally supervised clinical application</td>
<td>Requires additional clinical practice. Repeat skill evaluation. See deficiencies.</td>
<td>Answers oral review and other theory questions correctly</td>
<td>Require repeat oral review. See deficiencies</td>
<td>Answers oral review and other theory questions correctly</td>
<td>Require repeat oral review. See deficiencies</td>
</tr>
<tr>
<td></td>
<td>Ready for minimally supervised clinical application</td>
<td>Requires additional clinical practice. Repeat skill evaluation. See deficiencies.</td>
<td>Satisfactory</td>
<td>Unsatisfactory</td>
<td>Satisfactory</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td></td>
<td>Ready for minimally supervised clinical application</td>
<td>Requires additional clinical practice. Repeat skill evaluation. See deficiencies.</td>
<td>Satisfactory</td>
<td>Unsatisfactory</td>
<td>Satisfactory</td>
<td>Unsatisfactory</td>
</tr>
</tbody>
</table>

Evaluator Data

Please sign your name and state your affiliate name.

Signature

Affiliate

Proficiency Eval. #13 (Aspiration of Secretions - Pediatrics/Neonatal) - 84