Airway, Ventilators, and Critical Care Medications

Description/Learning Outcome: Nurses entering into the critical care workforce can be overwhelmed by the amount of information they need to know, the machines they need to master, and the acuity of patients. The learning outcome is to improve the learner’s ability to synthesize key elements of critical care nursing including oxygenation and airway management; intubation, mechanical ventilation and ventilator weaning; and managing patients receiving vasoactive and other medications used in critical care. Simulation is provided to reinforce learning.

Target Audience: This class was designed for the novice critical care or telemetry nurse who has completed the Hemodynamics, Shock, and Infection in Critical Care class. Others are welcome to attend as long as they have completed the pre-reading assignment.

Before You Come to Class:
It is highly recommended that you complete the Understanding Adult Hemodynamics primer prior to attending. It will be assumed that you have this knowledge. You can find the primer on the TCHP website; it will be attached to your pre-class materials: http://tchpeducation.com/coursebooks/preclass_docs.html

Objectives:
1. Identify indications, complications, and management methods for artificial airways and oxygen delivery devices.
2. Describe nursing management of the patient during endotracheal intubation.
3. Discuss the management of patients with a tracheostomy tube.
4. Describe the settings on the mechanical ventilator, including mode, frequency, tidal volume, flow rate, FiO2, I:E ratio, and alarm parameters.
5. Compare and contrast the indications, complications, and general management principles for frequently used ventilatory modes including: A/C, SIMV, Pressure Support, CPAP, and PEEP.
6. Describe common problems encountered with mechanical ventilators and how to troubleshoot them including: high pressure, low pressure, low volume, apnea, and vent inop.
7. Discuss techniques for the prevention of ventilator acquired pneumonia.
8. Describe nursing management of patients who are being weaned from mechanical ventilation.

Registration

Non-TCHP Participants: This class is not available to non-consortium participants.

Hennepin Healthcare:
Register via My Learning Center by clicking on Nursing Education in the Course Catalog. Questions? Click on Help in My Learning Center.

MVAHCS: Register for classes on TMS. For questions, contact VHAMINTCHP@va.gov

February 21, 2019 (at VA Sim Center)
May 1, 2019 (Hennepin Healthcare Sim Center)
August 20, 2019 (at VA Sim Center)
November 20, 2019 (Hennepin Healthcare Sim Center)
7:30 a.m. – 4:00 p.m.
Contact Hours: 7.00
*Please note that program dates and locations occasionally change. Consult www.tchpeducation.com before finalizing your plans.
10. Identify the indications, contraindications, side effects and administration guidelines of IV and IV drip medications used to effect hemodynamics including: preload, afterload, and contractility.
11. Describe the action, indications, delivery methods and side effects of the following medications used in the management of ventilated patients and other critically ill patients: sedatives, analgesics, neuromuscular blocking agents, and potassium.

**Planning Committee/ Presenters**

Linda Checky, BSN, RN, MBA, Program Manager for TCHP Education Consortium.

Lynn Duane, MSN, RN, Assistant Program Manager for TCHP Education Consortium.

*Paul Seim, RCP, Respiratory Care Coordinator at the Minneapolis VA Health Care System.

*Tom Scullard, MSN, RN, CCRN, Clinical Care Supervisor in the MICU at Hennepin Healthcare.

**Continuing Education Credit**

Contact Hours: 7.00

The Twin Cities Health Professionals Education Consortium is an approved provider of continuing nursing education by the Wisconsin Nurses Association, an accredited approver by the American Nurses Credentialing Center’s Commission on Accreditation.

**Criteria for successful completion**

All participants must attend the program and complete an online evaluation form to receive contact hours. Note that you must attend the ENTIRE activity to receive contact hours.

**Tuition**

This class is not available to non-consortium participants.

TCHP Programs are free to Full Consortium Partners (HENNEPIN HEALTHCARE and MVAHCS) and are discounted for Individual and Associate Consortium Members. Call TCHP for more information: 612-873-2225.

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<thead>
<tr>
<th>Schedule</th>
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<tbody>
<tr>
<td>7:30 - 7:45 a.m.</td>
<td>Registration</td>
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<tr>
<td>7:45 - 8:45 a.m.</td>
<td>Oxygenation and Airway Management</td>
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<td>8:45 – 9:00 a.m.</td>
<td>BREAK</td>
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<tr>
<td>9:00 – 11:30 a.m.</td>
<td>Mechanical Ventilation</td>
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<tr>
<td>11:30 –12:15 p.m.</td>
<td>LUNCH</td>
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<tr>
<td>12:15– 2:30 p.m.</td>
<td>Critical Care Pharmacology</td>
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<tr>
<td>2:30 - 2:45 p.m.</td>
<td>BREAK</td>
</tr>
<tr>
<td>2:45 – 4:00 p.m.</td>
<td>Critical Care Pharmacology Simulation and De-briefing</td>
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If you are attending class, you must consult Course Materials on the TCHP website to get materials related to your participation in class: www.tchpeducation.com; click on the course materials button.

Northfield: Register with Linda Herrera via email herreral@northfieldhospital.org or call 507.646.1269