Midwestern State University
Respiratory Care Program

PRECEPTOR TRAINING WORKSHOP
Class of 2012
The Purpose of this Presentation

- Commission on Accreditation For Respiratory Care
- Standard 3.11
  - The program must develop processes that facilitate the development of inter-rater reliability among those individuals who perform student clinical evaluations.

My Objectives

- Clarify clinical site expectations for each rotation
- Define the role of the Preceptor during clinical rotations
- Nurture critical thinking in the Respiratory Care student
- Strengthen feedback process
- Define Inter-Rater Reliability
Clinic Site Role and Responsibilities

- Select preceptor to be with students
  - Provides consistent instruction
- Match schedules to provide continuity of instruction
- Instruct students in policies and procedures of facility
  - Orientation to facility, ID badges, parking, food service
- Provide opportunities for students to complete selected competencies for clinical session
Role of the Preceptor

• To teach
  ○ Assist students in the application of skills and knowledge from classroom to real life situations

• To mentor and coach
  ○ Guide through steps of procedures
  ○ Provide immediate feedback to student on performance (what went right, how to do better)
  ○ Allow students to work independently with preceptor observation
Role of the Preceptor

- To evaluate
  - Provide daily evaluation of progress (Daily Evaluation)
  - Provide a summative evaluation to program on overall performance of student (Affective Evaluation)
The realization that we often act without careful consideration of the implications and consequences of our actions can be the first step in our journey to become critical thinkers.
Critical thinking is "a process which stresses an attitude of suspended judgment, incorporates logical inquiry and problem solving, and leads to an evaluative decision or action."

NCTE Committee on Critical Thinking and the Language Arts.
Attributes Of A Critical Thinker:

- asks pertinent questions
- is able to admit a lack of understanding of information
- has a sense of curiosity
- is interested in finding new solutions
- listens carefully to others and is able to give feedback
- looks for evidence to support assumption and beliefs
- is able to adjust opinions when new facts are found
- examines problems closely
Nurturing Critical Thinking

- Take time while performing procedures or treatments:
  - Ask: What if.....
    - What would happen next...
    - How would you proceed....
  - It’s OK if student is not sure or not able to answer
    - Engages student
    - Promotes critical thinking skills
Take Time With the Students
Nurturing Critical Thinking

- Help them to learn the answers to make the right decision
Critical Thinking Situations

- **Technology**
  - Equipment malfunction
  - Alarms activated
  - Equipment not set-up or not available in an emergency
Critical Thinking Situations

• Patients
  o Rare diseases
  o Cardiac/Respiratory arrest
  o Unexpected response to therapy

Fortunately for Sparky, Zeke knew the famous "Rex maneuver."
Critical Thinking Situations

- Other clinicians
  - Problem with orders
  - Questions from other staff
  - Asking questions
  - Making suggestions
  - Prioritizing tasks
Adult Learners

- Diverse
  - Age, culture, life experiences
- Learning Styles
  - Visual
  - Auditory
  - Kinesthetic
- Improved retention of knowledge
  - See it, Hear it, Do it
Classroom → Lab → Clinic
What Students Want From Preceptors

- Preceptor to stay with them
- Let them do the work
- Ask critical thinking questions
- To be challenged
Student Pet Peeves About Their Preceptors

- Don’t provide feedback
- Give feedback, but no follow-up
- All negative and no positive
- Evaluation doesn’t match student performance
- No review of evaluation
- Student thinks they are doing good, but evaluation is poor
Providing Immediate Feedback

- After an observed performance with a patient interaction:
  - Give a “sandwich”
  - Positive, negative, positive
  - + What did they do right
  - - What was not right, how can it be better
  - + Their overall performance
What is Inter-Rater Reliability (IRR)

- The extent to which 2 or more raters agree.
- Dependent upon the raters to be consistent in their evaluation of behaviors or skills.
- Unbiased measurement of student competency.
- Addresses the consistency of the implementation of evaluation systems being utilized.
- Imposes some level of objectivity.
- Increases “confidence” that preceptors are following the guidelines in a like matter.

Kathy Rye, EdD, CoARC Commissioner, Webinar
Reality of Using Multiple Evaluators

- Differences in education, experience, and values
- Varied levels of knowledge and experience with student evaluation;
- No leverage to force adherence to guidelines

- Inter-Rater Reliability assesses the consistency of how rating system is used if all students are not being evaluated by the same instructor

Kathy Rye, EdD CoARC Commissioner, Webinar
Did the student perform the procedure well enough to not need direct supervision?

- Yes = Satisfactory
- No ➔ Why?
  - Minor Unsatisfactory (little details)
  - Major Unsatisfactory (BIG details)

We all have to agree on “Good Enough” and agree on the occurrence/nonoccurrence of key behaviors—this agreement ensures that evaluation of desirable behaviors remain consistent.

Kathy Rye, EdD, CoARC Commissioner, Webinar
Syllabus

- Course description
- Instructor information
- Attendance/tardiness, missed clinic days, weather
  - Clinic Policies and Procedures
  - Student Handbook
Syllabus

- Competencies to be completed
- Task analysis
- Care plans
- Case studies
- Evaluation
- Grades
Competencies

- Ensuring inter-rater reliability:
  - Tools
  - Documentation
- Examples:
  - Hand washing
  - Pediatric MDI
Competencies – Clinic Practicum I

- 1. Basic Life Support (completed in lab on campus)
- 2. Hand washing
- 3. Isolation Procedures
- 4. Charge documentation
- 5. Vital Signs
- 6. Patient Assessment
- 7. Chest Assessment
- 8. X-ray Interpretation
- 9. Oxygen Therapy (Use of at least one oxygen delivery device)
- 10. Pulse Oximetry
- 11. Transport with Oxygen
- 12. Aerosol and Humidity Therapy (Use of at least one device)
- 13. Aerosol Drug Administration (metered dose inhalers, dry powder inhalers and small volume nebulizer)
- 14. Incentive Spirometry
- 15. Intermittent Positive Pressure Breathing*
- 16. Chest Physiotherapy
- 17. Positive Expiratory Pressure Mask Therapy*
- 18. Flutter valve therapy*
Competencies – Clinical Practicum II

- 1. Setup and ventilation via endotracheal tube and mask
- 2. CPR airway and ventilation
- 3. Adult CPR compressions
- 4. Suctioning via endotracheal
- 5. Securing an artificial airway
- 6. Tracheostomy cuff management
- 7. Heat and moisture exchanger
- 8. Extubation
- 9. In-line drug administration
- 10. Ventilator care and setup
- 11. Ventilator checks and parameter changes
- 12. Capnography
- 13. Weaning from mechanical ventilation
- 14. NIPPV (setup and check)
- 15. Patient transport (manual ventilation and setup)
- 16. ABG Sampling
## Competencies – Clinical Practicum III

- 1. Chest assessment
- 2. Patient assessment
- 3. X-Ray Interpretation
- 4. Nasal CPAP
- 5. Oxygen Hood
- 6. Nasal Cannula
- 7. Pulse Oximetry
- 8. Transcutaneous Monitoring
- 9. MDI via Manual Resuscitator
- 10. SVN via Blow-by
- 11. In-line MDI
- 12. In-line SVN
- 13. CPT
- 15. Setup and Ventilation via Mask
- 16. Newborn Assessment/Resuscitation
- 17. Neonatal CPR
- 18. Infant Apnea Monitoring
- 20. ET Suctioning
- 21. NT Suctioning
- 22. In-Line Suctioning
- 23. Ventilator Setup
- 24. Routine Vent Check
- 25. Vent Parameter Check
- 26. Vent Circuit Change
- 27. Surfactant Replacement Therapy
- 28. Neonate Capillary Gas Sampling
A minimum of 12 listed competencies should be completed as part of Clinical Practicum IV and V:
1. Perform an Intubation
2. Observe/perform Pulmonary Function Testing (spirometry-clinic and/or bedside, peak flow, diffusion, plethysmography)
3. Perform Hemodynamic Monitoring
4. Perform Arterial Line Sampling
5. Perform Pulmonary Artery Pressure Measurement
6. Perform Thermodilution Cardiac Output Measurement
7. Perform Bronchoscopy Assisting *
8. Perform Electrocardiography
9. Observe Metabolic Assessment*
10. Observe Stress Testing*
11. Observe Lung Scan*
12. Observe CAT Scan
13. Observe MRI
14. Observe Cardiac Catherization
15. Observe Echocardiography
16. Observe and/or perform Hyperbaric Oxygen Therapy
Care Plans

- Students rotating through the ICU, CVICU and CCU settings will be required to complete a minimum of one care plan per day.
- Care plans provide for an individualized assessment of the patient as well as development of critical thinking skills.
**Care Plan Example**

**Clinical Portfolio Care Plan (Example)**

**Date:** 2/12/09  
**Location:** SJMC

**Objective:**  
Initial impression: No apparent distress, resting quietly on ventilator

**Vital Signs:**  
HR: 112  
RR: 28  
BP: 107/88  
Temp: 95  
Sat: 99%

**Head:**  
ICP line  
PIERLA  
Ears: clear  
Nose: not done  
Throat: not done

**Neck:**  
no masses, trachea midline

**Thorax:**  
Chest tube on right no drainage  
Heart (palpable): regular  
Lungs: diminished, scattered crackles

**Abdomen:**  
soft and flat

**Extremities:**  
no edema, multiple abrasions healed  
CXR: pneumomediastinum resolved, CT in place, bilateral infiltrates, heart normal size  
Vent: A/C Vt 5.40 ml, Rate 26, PEEP 10, FiO2 80%. Peak 32, PIP 26  
ABG's: pH 7.34, PaCO2 48, PaO2 58, HCO3 29  
H/H: 41/12.4  
CSC: 10.1

**Assessment:**  
Currently stable on vent. Pressure resolved

**Plan:**  
Wear O2 cautiously keep sats >92%. Remove CT if critical care team agrees

**Expected length of Plan:**  
24 hours, re-evaluate tomorrow

**Problems and planned interventions:**  
**Mechanical ventilation:**
- **Barotrauma**  
  - Keep peak pressures low, PIPs <30  
  - Set alarms appropriately  
  - Sterile technique all procedures, oral care, HOO  
  - 30 degrees
- **Accidental Decannulation**
- **Vent. Associated Pneumonia**
- **Airway trauma**
- **Wearing O2**
- **Chest tube (removal)**
- **Reap pneumo**
- **Site infection**
- **Bronchodilators:**
  - Reactive (increased HP, HR)
- **Outcomes:**
  - Oxygen weaned to safe level over the next 48 hours (>60%)
  - Chest tube removed and breath sounds normal, ventilating pressures low
  - Patient continues to improve

**Meds:** Xopenex 1.25 and Atrovent Q6
Task Analysis and Case Study

**Task Analysis:**
- Each student must complete a task analysis on 3 procedures commonly performed as part of Clinical Practicum I. Includes:
  - Indications/contraindications
  - Hazards
  - Outcomes
  - Monitoring
  - Steps to performance.

**Case Study:**
- Each student will turn in a case study as part of Clinical Practicum II, III and IV
  - Allow time to work on case study during clinical
  - It may be necessary for student to take additional time to complete
  - Students present Case Studies to our Medical Director at the conclusion of the practicum
Case Study Format

- **Patient data**
  - A. Name, initials only
  - B. Age  C. Sex

- **Admitting data**
  - Admitting chief complaint
  - Pertinent hx-medical, social, occupational
  - Current working diagnosis

- **Present chest examination**
  - Observations of setting and general appearance
  - Inspection, auscultation, percussion and palpitation
  - Radiologic

- **Vital Signs**
  - HR/Rhythm
  - Ventilatory status
  - BP and Temperature

- **Present lines and tubes**

- **Clinical lab data**
  - RBC, Hgb, Hematocrit, WBC, ABG
  - Platelets, clotting studies
  - Electrolytes, sputum culture & sensitivity
  - BUN, Creatinine, Glucose, Urinalysis

- **Pertinent medications**
  - Respiratory
  - Cardiovascular
  - Antibiotic
  - Other - Analgesics, Antacids, Anticoagulants, Antihistamines, Decongestants, Anti-inflammatory, Antipyretics, Diuretics, Narcotics
Case Study Format (con’t)

- Evaluation of major organ systems other than drugs
  - Heart, neurological, liver, kidneys, GI
- Major diagnostic procedures and results
- Rationale for initial treatment
- Major complications since admission
- Rationale for current treatment
- Rationale for current respiratory care
- Reasonable short term plan for the patient
- Narrative summary of the important aspects of the patient’s illness
DataArc

- Computerized documentation system

- Each student has access

- Required:
  - Daily logs
  - Site and preceptor evaluations

- Each site has access
  - Complete competencies
  - Student affective evaluations
  - Students are graded on evaluation results (get input from all preceptors that student has been with, review with student)

- Password for trained clinical preceptors
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