

**Part II. 1.**  
**Course Revision Proposal**  
**RESP 426 Respiratory Care Clinical Practice III**

**I. Catalog Description**

RESP 426 Respiratory Care Clinical Practice III (var-4cr)

Respiratory care treatment procedures are continued with emphasis on improving proficiency and refining skills in adult general and critical care areas. Focus on advanced skills related to mechanical ventilation. Specialty rotations are continued.

**II. Course Objectives**

Students will be able to

1. Select, review, obtain and interpret data on pediatric and adult patients in acute care settings.
2. Select, assemble and check equipment for proper function, operation and cleanliness.
3. Initiate, conduct and modify prescribed therapeutic procedures on pediatric and adult patients in acute care settings.
4. Function as member of the health care team.
5. Practice the basic principles of teaching.
6. Demonstrate behaviors consistent with professional respiratory care standards.

Note: Objectives 1, 2, and 3 are consistent with Content Outlines (1998) published by the National Board of Respiratory Care, Inc. (NBRC), the credentialing agency for the respiratory care profession.

**III. Course Outline**

Throughout the semester students rotate through various specialty areas where they learn new procedures, refine procedures and techniques used in prior semesters and apply the theory they learn in the classroom courses to the practice of a respiratory care practitioner. Hours in each area will vary depending on a number of factors including individual student learning needs, class size, availability of clinical sites and off-site locations, and the development of new technology and procedures.

| <b>Topic</b>                             | <b>Approximate Hours</b> |
|--|--------------------------|
| Orientation                              | 20                       |
| Adult critical care                      | 55                       |
| Burn trauma care                         | 20                       |
| General floor therapy and rehabilitation | 20                       |
| Pulmonary diagnostics                    | 20                       |
| Mid-term review and exam                 | 5                        |
| Cardiothoracic                           | 20                       |

|                    |           |
|--------------------|-----------|
| Anesthesia         | 14        |
| Neonatal care      | 20        |
| Pediatric care     | 20        |
| Off-site rotation  | 42        |
| Physician lectures | 14        |
| <u>Teaching</u>    | <u>10</u> |
| Total              | 280       |

|                       |   |
|-----------------------|---|
| Final review and exam | 5 |
|-----------------------|---|

#### **IV. Evaluation Methods**

The final grade will be determined as follows

##### Category I

|                      |     |
|----------------------|-----|
| Mid-term exam        | 10% |
| Clinical assignments | 20% |
| Final exam           | 10% |

##### Category II

|                       |     |
|-----------------------|-----|
| Professional behavior | 30% |
|-----------------------|-----|

##### Category III

|                    |     |
|--------------------|-----|
| Psychomotor skills | 30% |
|--------------------|-----|

Students must achieve a minimum of 65% in each category to pass the course.

Grading Scale: A: 90% B: 80-89% C: 70-79% D: 65-69% F: < 65%

#### **V. Attendance Policy**

Attendance is mandatory. Make up time is required for any absence beyond two days. Failure to make up clinical time results in an F grade.

#### **VI. Required Textbooks**

Students are required to purchase several textbooks and other required readings in their first semester of course work at West Penn Hospital. The texts and readings are used throughout their program of study with a few additional items purchased in subsequent semesters.

Beck-Koff, P., Eitzman, D., & Neu, J. (1993). *Neonatal and pediatric respiratory care* (2<sup>nd</sup> ed.). St. Louis, MO: Mosby.

Dunne, P.J., & McInturff, S.L. (1998). *Respiratory home care the essentials*. Philadelphia, PA: F.A. Davis.

Ehrat, K.S. (2002). *The art of EKG interpretation* (5<sup>th</sup> ed.). Dubuque, IA: Kendall/Hunt.

Huff, J. (1997). *ECG workout: Exercises in arrhythmia interpretation* (3<sup>rd</sup> ed.). Philadelphia, PA: Lippincott.

National Institutes of Health National Heart Lung and Blood Institute. (1997). *Practical guidelines for the diagnosis and management of asthma*. (NIH Publication No. 97-4053.) Rockville, MD: Author.

## **VII. Special Resource Requirements**

All students are responsible for and required to have the following

1. Current CPR certification
2. Professional liability insurance
3. Health requirements
4. Student uniforms
5. Clinical equipment
6. Clearance: Criminal Record and Child Abuse Record
7. West Penn Hospital access card and photo identification
8. Membership in the American Association of Respiratory Care

Refer to the West Penn Hospital School of Respiratory Care Student Handbook for additional details and information about related fees. Additional requirements may be specified by agencies used for off-site rotations.

## **VIII. Bibliography**

Annals of Internal Medicine (2003). *Noninvasive positive-pressure ventilation for severe worsening of chronic obstructive pulmonary disease*, 138(11), 1-27.

Braithwaite, R.L., & Taylor, S.E. (2001). *Health issues in the black community* (2<sup>nd</sup> ed.). San Francisco, CA: Jossey-Bass.

Chang, D.W., & Summerlin, K. (2000). *Clinical application of mechanical ventilation* (2<sup>nd</sup> ed.). Albany, NY: Delmar.

Cunningham, S., McColm, J.R., Mallinson, A., Boyd, I., & Marshall, T.G. (2003). Duration of effect of intravenous antibiotics on spirometry and sputum cytokines in children with cystic fibrosis. *Pediatric Pulmonology*, 36(1), 43-48.

Khatri, S.B., Hammel, J., Kavuru, M.S., Erzurum, S.C., & Dweik, R.A. (2003). Temporal association of nitric oxide levels and airflow in asthma after whole lung allergen challenge. *Journal of Applied Physiology: Respiratory, Environmental and Exercise Physiology*, 95, 436-440.

- Lowton, K., & Gabe, J. (2003). Life on a slippery slope: Perceptions of health in adults with cystic fibrosis. *Sociology of Health & Illness*, 25, 289.
- Mishoe, S.C., & Welch, M.A., Jr. (2002). *Critical thinking in respiratory care: A problem-based learning approach*. New York: McGraw-Hill.
- Salvatoni, A., Piantanida, E., Nosetti, L., & Nespoli, L. (2003). Inhaled corticosteroids in childhood asthma: Long-term effects on growth and adrenocortical function. *Paediatric Drugs*, 5, 351.
- Stern, J.B., Mal, H., & Peters, S.G. (2003). Mechanical ventilation in patients with pulmonary fibrosis. *American Journal of Respiratory and Critical Care Medicine*, 167, 1718-1719.
- Strauss, P.G. (2000). *Relieve the squeeze: How to take control of your asthma*. New York: Viking.
- Williams, C. (2002). *Mothers, young people, and chronic illness*. Burlington, VT: Ashgate.
- Wyka, K.A., Mathews, P.J., & Clark, W.F. (2002). *Foundations of respiratory care*. Albany, NY: Delmar.

## **Part II. RESP 426 Respiratory Care Clinical III**

### **2. Summary of Proposed Revisions**

The credit hours are reduced from 5 to 4. The course description is updated. Course objectives are clearly delineated. Clinical hours are adjusted to apply a guideline of 5 clock hours per one credit hour per week (5 clock hours x 4 credits = 20 clock hours per week x 14 weeks = 280 clock hours per semester).

### **3. Justification/rationale**

The reduction is necessary to reduce the program credit total to 120 credits. Clearly stating course objectives brings the syllabus in line with the university's syllabus policy, will help the faculty select learning experiences in line with course objectives, and give students a better understanding of course expectations.

The course is approved as variable hours. In previous years, there has been wide variability within the course and across the other clinical courses for planning clock hour to credit hour ratios. In the proposed revision, the use of a standard guideline will allow for more consistency across RESP 333, 426, and 433. The guideline provides students with the time necessary to meet course objectives and be adequately prepared for their credentialing examinations. The standard formula is also in line with the expectations of the program's accrediting agencies. The variable hours designation is still appropriate, however, given the nature of the course and the flexibility needed in scheduling student clinical hours.

4. The syllabus of record is not available although the archives in the department's office, the dean's office, West Penn Hospital files, and Senate documents in the library's Special Collection area were searched. A syllabus used in a recent semester is attached for comparison. The attached syllabus is not in a format typically used on campus. It has been common practice at West Penn Hospital to use the attached format for clinical course syllabi with additional course detail such as unit objectives, performance guidelines, and the attendance policy provided in the student's Handbook and in various handouts.

5. Liberal studies course approval form and checklist are not necessary.

## **Part III.**

No other departments are affected by this proposed change. No letters from other departments or programs are necessary.

## CLINICAL 3- Resp 426 FALL 2002

Instructors: Mr. Heck -2380; Ms. Kinderman-2381

All students should review the rotation objectives, dress and equipment requirements prior to the rotation. Students must have ID at all times on clinical. Students should also be able to recall their computer access code/s.

### I. CLINICAL ROTATIONS - TIME SCHEDULE

#### A. Critical Care (ICU) 3 WEEKS

|           |              |
|-----------|--------------|
| Monday    | 7:00 - 3:30  |
| Wednesday | 7:00 - 11:00 |
| Friday    | 7:00 - 3:30  |

#### B. Respiratory Care Teaching (T)

as assigned Tuesdays or Wednesdays of other rotations.

|              |              |          |
|--------------|--------------|----------|
| Tuesday Tt   | 7:00 - 11:00 | Teaching |
| Wednesday Tw | 7:00 - 11:00 | Teaching |

#### C. Burn Unit (B)

|           |              |
|-----------|--------------|
| Monday    | 7:00 - 3:30  |
| Wednesday | 7:00 - 11:00 |
| Friday    | 7:00 - 3:30  |

#### D. Pulmonary Function Lab (PFT)

|           |              |
|-----------|--------------|
| Monday    | 7:00 - 3:30  |
| Wednesday | 7:00 - 11:00 |
| Friday    | 7:00 - 3:30  |

#### E. Cardiovascular Recovery Room (CVR)

|           |               |
|-----------|---------------|
| Monday    | 9:30 - 5:00?? |
| Wednesday | 7:00 - 11:00  |
| Friday    | 7:00 - 3:30   |

#### F. Neonatal (NEO)

|           |              |
|-----------|--------------|
| Monday    | 7:00 - 3:30  |
| Wednesday | 7:00 - 11:00 |
| Friday    | 7:00 - 3:30  |

#### G. Children's Hospital (CH)

|           |              |
|-----------|--------------|
| Monday    | 7:30 - 3:30  |
| Wednesday | Computer lab |
| Friday    | 7:30 - 3:30  |

H. Home Care (HC) 2 weeks

HC<sup>T</sup> one week will be designated Teaching

Tuesday 7:00 - 11:00 & Wednesday 7:00 - 11:45

Monday see times for individual companies  
Friday

I. Respiratory Care Therapy & Rehabilitation/ Therapy Evaluation (RC)

Monday 7:00 - 3:30  
Wednesday 7:00 - 11:00  
Friday 7:00 - 3:30

J. Anesthesia (A)

A<sup>MW</sup> Monday 7:00 - 11:00/ Wednesday 8:30 - 11:00

A<sup>WF</sup> Wednesday 8:30 - 11:00 / Friday 7:00 - 11:00

A<sup>MF</sup> Monday/ Friday 7:00 - 11:00

K. Allegheny General Hospital (AG)

Monday 7:00 - 3:30  
Wednesday open  
Friday 7:00 - 3:30

L. Computer Lab - Variable Times

1. Reserved Slots: Wednesday of Children's & off days of Anesthesia or HC
2. SIMS can also be done on a "first come-first served" basis whenever the computer is not reserved for Jr. or Sr. Students- however you should sign up first.
3. NOTE: Practice sims must be completed by Friday of Week 11 of the Semester; and Sim for "Evaluation" should be completed by Wednesday of Week 13.

M. Article Review - Each student will review an article pertinent to their research project.

## II. CLINICAL ASSIGNMENTS - General information

Every effort is made to ensure that students receive training in all aspects of respiratory care. From time to time, changes in the student=s assigned rotation may be necessary without prior notice to provide for a valid learning experience. (ex.No patients in Burn Unit therefore, re-assigned to another rotation at WPH.)

The students are directly responsible to the Instructor assigned to the unit. Students are expected to know the pager numbers for their instructors. Students are also encouraged to get pager numbers for RC staff.

West Penn Hospital dress code will be enforced. Some reminders are listed here but are not limited to:  
Students are to wear clean scrubs, clean lab coats, clean white shoes and nametags. Long hair MUST be pulled back and fastened. Beards and mustaches MUST be neat in appearance and trimmed; men should be clean-shaven otherwise. Earrings are limited to two. Visible body piercing (including tongue piercing) needs to be removed for clinical practice. Tattoos must not be visible. Violations to the dress code policy will result in a verbal warning for the first offense; point deductions in the affective domain (starting at -1) for subsequent offenses.

Each student is expected to have in their possession the required clinical accessories in preparation for rotation: watch, scissors, stethoscopes, hemostats, goggles, fitted TB mask.

## III. TASK RECORDS

Task completion records help to insure that students have well-rounded and Similar clinical experiences.

A. For West Penn Hospital rotations, students are required to report their statistics (types and number of procedures performed) to their assigned instructor at the end of each day.

B. The instructor may be notified in person or via the paging system.  
BEEPER NUMBERS Mr. Heck #2380 ; Mrs. Kinderman #2381

C. For outside rotations, task sheets are to be completed and handed in to the Director of Clinical Education (WPH). As per school policy. (\*\*See Clinical Guidelines Book concerning penalty for failure to submit statistics).  
Children's Hospital Allegheny General Home Care

D. Sheets can be found in the bins near the student mailboxes.



#### IV. REPORTING TARDINESS/ABSENTEEISM

A. Students must make contact before the starting time of the specific rotation (See School Policy SRC-7)

1. If the rotation begins at 7:00 a.m. call 578-5000 and notify the switchboard operator by 6:45 a.m. Rotations beginning after 7:00 a.m. call 578-7000 and notify the School of Respiratory Care before the starting time of the rotation. You may leave a message on the answering system.

2. If the student is on an outside rotation (CH, AG, HC) the student MUST call BOTH WPH and the outside clinical rotation by the times designated in # 1 above. Acquire the name of the person you speak with when you call the outside rotation. (See detail in rotation objectives.)

Children's Hospital                      692 - 6479  
Home Care - Call the company AND THERAPIST !  
Allegheny General Hospital      359 - 3031

B. Outside rotation coordinators will verify call off with the school.

C. All students on clinical rotations are under the direct or indirect supervision of the Instructors or contact persons. Students should sign in and out with each instructor or contact person. Students are not permitted to leave the rotation without consent of their assigned coordinators &/or instructors. Students who are found to have left a rotation early or without permission will face absentee sanctions.

D. If at any time a problem exists on a rotation and the student is not sure what to do, the student should call the school at 578-7000. If you reach audix, leave a message but also page Mrs. Kinderman through West Penn Hospital's paging system. 578-7400 beeper 2381, and enter the call-back telephone number.

E. Physician Lectures Mondays

Those students on off-site rotations will NOT be required to attend physician lectures. (Mon) Any WPH rotation will be expected to attend.

F. Clinical Conferences -Tuesday a.m. &/or Thursday a.m. as available or necessary. During this semester, several conferences, quizzes, review sessions may be scheduled and attendance will be required. Students should check with instructors weekly regarding any changes to this schedule.

## V. Schedules

*Each student shall receive a clinical schedule. Please refer to the clinical schedule for individual rotation and progression of assignments.*

## VI. Course Objectives

*Please refer to the School's Clinical Practice Guidelines Book for the course objectives as well as the criterion for each evaluation system.*

## VII. Required Textbooks and bibliography

*Required texts for Clinical are those books currently on the Senior Book List. Additional reading assignments will be available on reference in the library or via the web.*

## VIII. General Clinical Objectives

1. *Observe hospital, department and school policies.*
2. *Utilize paging and telephone systems with professional communication skills.*
3. *Identify the proper response for reporting*
  - a. *Cardiac arrest ("Blue Alert") Adult (1111)*
  - b. *Cardiac arrest ("Pink Alert") Pediatric (3333)*
  - c. *Fire. (1111)*
  - d. *Security issues/problems (1800)*
  - e. *Infant or Pediatric abduction ("Code Adam") (1111, and 1800)*
4. *Maintain patient and institutional confidentiality.*
5. *Observe and practice infection control policies and procedures.*
6. *Know the fire safety policy. (RT responsibility; RACE; PASS)*
7. *Maintain professional etiquette in all areas of the hospital*
8. *Enhance knowledge and expertise in the clinical practice of respiratory care.*
9. *Provide safe, effective, quality patient care!*

## IX. CLINICAL ROTATIONS

### A. CRITICAL CARE (ICU)

#### 1. Procedure

- a. Report to the Respiratory Care Dept. for a.m. Report
- b. Contact the ICU instructor at the end of each day and report stats , solicit feedback.
- c. Student is under the direct supervision of the ICU instructor. ( or staff member- AGH)

#### 2. Objectives - WPH critical and offsite subacute care areas

- a. Perform quality ventilator maintenance and make all ventilator adjustments correctly.
- b. Perform ventilator tubing changes correctly.
- c. Utilize the O2 analyzer and the volume measuring devices correctly and appropriately.
- d. Perform and calculate dynamic and static compliances.
- e. Chart with clarity and proficiency in computer and patient record
- f. Perform respiratory RXs and procedures.
- g. Transport critically ill patients
- h. Check function and utilize bag-valve-mask units
- i. Perform CPR
- j. Correctly assess placement of endotracheal tubes and make any adjustments or securement as needed.
- k. With assistance, perform tracheostomy care and/or perform trach tube changes according to set Hospital policy and procedures.
- l. Competently assess patients vital signs.
- m. Correctly interpret ABG and suggest therapeutic recommendations.
- n. Correctly measure artificial airway cuff pressures and make appropriate adjustments to insure patient safety.
- o. Draw ABG's (Dept staff or instructor must be present).
- p. Access patient information on the computer terminal.
- q. Correctly identify the rhythms on ECG tracings.
- r. Review patient CXR and correlate with written report.
- s. Participate in physician rounds and communicate patient data to physicians.

#### 3. Evaluations - WPH

- a. There will be 3 formal clinical evaluations  
-- Ventilator Rationale

- Artificial Airway Cuff pressure
- ABG draw (Line or puncture)
- b. The evaluations will begin at the discretion of the instructor.
- c. The student must repeat any procedure which is scored less than 7 out of 10 points. Exact grades will not be given on the clinical units. Only pass-fail will be noted at the time. Exact grades will be distributed at the established clinical review session.

NOTE: A written D/F Warning will be issued for all psychomotor Procedures that must be repeated.

## B. R.C. TEACHING ASSISTANT ROTATION (as noted with T as in : HC<sup>T</sup>)

### 1. Objectives

- a. Provide direction and role model for junior students.
- b. Assist in the instruction of junior students in the clinical and laboratory settings.
- c. Develop personal and professional communication skills.

### 2. Teaching Rotation Evaluation

A maximum of 2 points can be earned in the Affective Domain.

### 3. Procedure

Each senior student will be responsible for meeting with the instructor assigned to their teaching area (lab/clinical). Areas of responsibility and expectations will be reviewed. Each student should check the clinical rotation schedule so that preparations can be made for the rotation at least 1 week in advance. Note: Failure to meet with the instructor prior to rotation will result in a 0.5 point deduction per incident.

|               |  |
|---------------|--|
| Mrs. Myers    | Equipment Labs/ MV Labs / Rx Rotations             |
| Mr. Albert    | All ICU Rotations/ CPT Lab/ Suctioning Lab/ABG Lab |
| Mrs. Lapinski | CPR Labs   |

- 4. From an academic standpoint, senior students are responsible for the care and information conveyed under their direction. If the student is unsure of the best course of action or the most appropriate way to handle a particular question or situation, they MUST contact the instructor supervising that rotation. The senior student will never be penalized for seeking this information.

## C. BURN UNIT ROTATION (B)

### 1. Procedure- same as for WPH- ICU rotation

### 2. Objectives

- a. Perform quality ventilator maintenance and make all ventilator adjustments correctly.
- b. Perform ventilator tubing changes correctly.

- c. Perform respiratory RXs and procedures.
- d. Transport critically ill patients
- e. Perform CPR
- f. Correctly assess placement of endotracheal tubes and make any adjustments or securement as needed.
- g. With assistance, perform tracheostomy care and/or perform trach tube changes according to set Hospital policy and procedures.
- h. Correctly interpret blood gases and suggest therapeutic recommendations based on the ABG's.
- i. Correctly measure artificial airway cuff pressures and make appropriate adjustments to insure patient safety.
- j. Draw ABG's (Dept staff or instructor must be present).
- k. Perform chart research on the management of inhalation injury and burns in general.
- l. Watch video tapes on burn patient management and read articles pertinent to burn injury.

#### D. PULMONARY FUNCTION LAB - WPH (PFT)

##### *1. Procedure*

- a. Students are to report to the Pulmonary Function Lab- 4th Floor- North Tower
- b. Students are under the direct supervision of the therapist or technician scheduled during this rotation. Task completion statistics are to be given to a primary clinical instructor at the end of each day.

##### *2. Objectives*

- a. Observe and assist with the performance of the following PFT tests: Simple Spirometry, FRC Determination, Diffusion, and Flow-Volume.
- b. Practice the above tests on fellow students especially during downtime.
- c. Interpret basic spirometry
- d. Observe/assist with bronchoscopy procedure.
- e. Assist the staff with all activities as directed.
- f. Perform abg under direct supervision/observation of WPH staff.
- g. Explain the rationale for conscious sedation protocol.
- h. Determine the results of PFTs which would indicate:
 

|                                 |                        |                   |
|---------------------------------|------------------------|-------------------|
| Obstructive defects             | Restrictive defects    | Diffusion defects |
| Obstructive/restrictive defects | Reversible obstruction |                   |

#### E. CARDIOVASCULAR RECOVERY ROOM (CVR)

##### *1. Procedure*

- a. Report to the Respiratory Care Dept.
- b. The student is under the direct supervision of the instructor assigned to CVR.

- c. *The student is responsible for making arrangements with the CVR nurse (as soon as the student arrives on the CVR unit) to perform PCWP on several patients. The patients need not be a ventilator patient.*
  - d. *The student is NOT to perform ANY INVASIVE PROCEDURE on patients (e.g. suctioning) in the absence of an instructor or RC staff therapist. The student will ensure that a staff therapist or instructor is available in the unit before initiating any of these procedures.*
  - e. *The student is responsible for notifying the CVR instructor when PCWP measurements are to be performed. The measurements must be performed with an instructor present. The student should prepare to start the first PCWP measurement by 7:30 a.m.*
  - f. *The student should keep in mind that a minimum of 3 PCWP measurements must be performed by the end of the semester. The student should be aware of these minimum requirements, and actively seek PCWP measurement opportunities.*
- NOTE: Failure to meet the minimum number of PCWP measurements will result in an Incomplete in Clinical requiring make-up time following the end of the semester.*
- g. *Contact the CVR instructor and provide statistics at the end of the day.*

## *2. Objectives*

- A. *Administer respiratory treatments and perform RC procedures.*
- b. *Monitor patient and ventilator status; perform weaning procedures as per department CVR weaning protocol guidelines.*
- c. *Institute mechanical ventilation of post operative patients according to physician orders*
- d. *Gain an understanding of the equipment and techniques utilized in the CVR.*
- e. *Perform under direct supervision of an instructor:*
  - 1) *Hemodynamic Monitoring*
  - 2) *ABG*
- f. *Review ABG and weaning parameters, properly document therapy, and make suggestions for changes.*
- g. *Perform suction and extubation under direct supervision of an instructor or therapist.*

## *3. Evaluations*

- a. *CVP/ PCWP is the Formal Evaluation*
- b. *Evaluation will be based on a maximum of 10 points. Exact grades will not be given on the units. Only pass-fail will be noted at the time. Exact grades will be distributed at the established clinical review session. (Clinical IV has a Hemodynamics evaluation that stems from this evaluation.)*

## F. NEONATAL ICU (NEO)

### 1. Procedure

- a. Check in with the instructor in the 4th floor RC dept., then report to the 5th floor- (NICU) nurses station and find the Respiratory Therapists for Neonatal Report
- b. Student is under the direct supervision of the Neonatal therapist(s).
- c. Meet the CVR instructor at the end of each day and provide RC statistics.

### 2. Objectives

- a. Determine location of respiratory care equipment within the unit.
- b. Observe various RC procedures (RX, bagging, suction, ABG, O2 Therapy, ventilator maintenance, auscultation, O2 analysis, etc.)
- c. Observe various nursing care procedures.
- d. Participate in physician rounds. Focus on rationale for ventilator commitment and changes in ventilator settings.
- e. Review charts of neonates receiving mechanical ventilation.
- f. Ask questions to staff members regarding any procedure, equipment or patient problem.
- g. Perform ventilator maintenances.
- h. Assist in the administration of respiratory treatments and performance of RC procedures (bagging, suction, tubing change, ABG, transport)
- i. Chart blood gases and determine rationale for any changes in ventilator or O2 settings.
- j. Change oxygen hoods and other O2 set-ups
- k. Participate in physician rounds.
- l. Prepare ventilators for new admissions
- m. Review Charts of neonates currently receiving mechanical ventilation and be able to discuss rationale for mechanical ventilation.
- n. At the end of each day, contact instructor and provide with task completion records.

3. Assignment - Completed Neonatal sheets ( school and NICU) are to be submitted to Ms. Kinderman by the end of the Neonatal rotation.  
- These can be found in the Bins near the mailboxes.

## G. CHILDREN'S HOSPITAL (CH)

### 1. Procedure

- a. *Students are to wear scrubs and Clean tennis shoes. Wear your WPH - student photo ID & patch. Bring your stethoscope. (Do not Bring extraneous belongings- but you should bring a notebook)*
- b. *Students are to report to CH by 7:30 a.m. (5TH FLOOR )*
- c. *Students are under the direct supervision of:  
RT Educational Coordinator - Bill Rush -  
and his designated staff person- and need to maintain open communication.*
- d. *General WPH School of RC policies and "Clinical Practice Guidelines" will be in effect. Any necessary modifications will be announced by CH personnel.*
- e. *If it is necessary to report tardiness or absenteeism, it is essential that you acquire the name of the staff member (412.692.6479) that you speak with concerning the attendance matter- and remember to also call the School (412.578.7000).*
- f. *Submit rotation evaluation form to Mr. Rush and the task completion records to the Director of Clinical Education (WPH) at the end of rotation. These records can be found in the Bins near the mailboxes.*

### 2. Agenda

- a. *Observation of treatment administration*
- b. *Treatment administrations*
- c. *Equipment Rounds*

### 3. Objectives

- a. *Effectively administer respiratory treatments to the pediatric patient*
- b. *State major differences in administration of treatments to the pediatric patient versus the adult patient*
- c. *Identify operational features of various types of equipment used to treat the pediatric patient*
- d. *Identify common pediatric disorders warranting the need for Respiratory Therapy Administration*
- e. *Identify the various methods to administer oxygen to the pediatric patient*
- f. *Observe intensive care therapies and RC equipment*



*g. Provide feedback to the Children's Hospital RC dept. Re: your experience.*

#### **4. Evaluation**

- a. A final grade for the rotation will be submitted and will be based on:
  - 1) Psychomotor - I check-off aerosol therapy evaluation (Pass/Fail)*
  - 2) Affective - A rating (PASS/FAIL)*
  - 3) Cognitive - Test questions submitted by CH clinical coordinator for the Clinical III final written exam.**
- b. The psychomotor procedure evaluation will be repeated in the event of an unsuccessful attempt*

#### **H. HOME CARE COMPANIES- HC**

##### **1. Procedure (for HC<sup>T</sup> follow teaching objectives)**

- a. Each student will be scheduled for 2 home care companies, to make rounds with the home care therapist and to observe the office, or oxygen home deliveries. Please take your stethoscope, a pen, and any studying material if you should have downtime. You will be provided with further information concerning: Which company and location, times, Agenda and assignments for the first and second rotation sites.*
- b. This term students will visit two of the following companies: Advacare, Klingensmith, UPMC Home Medical, Lincare- PennHills, HealthCare Solutions, or Pediatric Services of America.*

##### **2. Objectives**

- a. Students will become familiar with cost and reimbursement concerns related to the application of respiratory care in the home.*
- b. Become familiar with the roles of other health related professionals in the total home care management of the patient.*
- c. Students will observe and compare notable differences in the role of the respiratory care practitioner as well as the general practice of respiratory care in the home versus the hospital setting to include: Asepsis, psychological support, pulmonary assessment, home equipment, pharmacology, education, etc.*
- d. Students may be able to assist the respiratory practitioner in the assessment of the patient.*
- e. Students may be able to assist the practitioner in the completion of paperwork & updating of records, including the care plan.*
- f. Students may be able to assist the therapist in the general routine maintenance of equipment.*
- g. Students may participate in other home care activities as determined by the therapist.*

##### **3. Evaluation**

- a. Affective - (PASS/FAIL)*
- b. Cognitive -At the end of the rotation, the student should submit the assignment to Mr. Heck. Also test questions will be submitted by home care therapists for the Clinical-3 final written exam*

## I. RESPIRATORY CARE /REHAB, THERAPY EVALUATION ROTATION (RC)

### **1. Procedure**

- a. Report to the RC department- 4th floor of the hospital
- b. Students are under the supervision of the RC staff, supervisor, and CVR Instructor. Record stats for the instructor at the end of the day.
- c. Bring stethoscope and other pertinent RC equipment

### **2. Objectives**

- a. Administer RC treatments, O2 modalities, and set-ups.
- b. Assist the staff in the evaluation of RC therapies by using the established protocols and assessments
- c. Identify key factors that are used to evaluate the effectiveness and rationale for each of the following therapies: Aerosol, Incentive, CPT, O2 therapy, etc. Utilize the AARC Clinical Practice Guidelines (RC dept).
- d. Assist the staff in the performance of rehabilitation activities in the department and on the general floors. These activities may include the following: Ambulatory pulse oximetry, O2 therapy discharge planning, pulmonary function testing, bronchoscopy and conscious sedation monitoring, BIPAP therapy, outpatient therapy and patient education. Utilize the AARC Clinical Practice Guidelines (RC dept), and Conscious Sedation Protocol (RC Dept.)
- e. Evaluate ordered RC therapies by using the established protocols and assessments
- f. Identify key factors that are considered and necessary in O2 therapy discharge planning.
- g. Describe the role of the staff therapist in the RC dept.
- h. Perform patient assessments and IPOCs and evaluate at least three patients receiving RC treatments &/or O2 therapy.
- i. Document the need for continuing or discontinuing therapy.
- j. Effectively communicate with physicians and other members of the health care team concerning patients receiving respiratory care.
- k. Evaluate ordered therapy and make recommendations and suggestions to physician as to appropriate respiratory care.

### **3. Evaluation Procedure (See details in clinical guidelines)**

- a. Each student will select ONE patient seen during rotation for his or her assessment, evaluation and treatment plan.
- b. Submit for evaluation and feedback one copy of one treatment evaluation write-up performed. A maximum of 2 pages. Use the therapy protocols and the established guidelines in the clinical guideline book as reference.
- c. The evaluation must be submitted to the instructor before the end of the day on Friday of the rotation. (NO LATE WRITE-UPS will be accepted - a zero score will be given - unless special permission has been received from Mrs. Kinderman or Mr. Heck)

## J. ANESTHESIA-INTUBATION (A)

### I. Procedure

- a. The student will report to the RC Dept. by 6:45 to check in with the ICU instructor. Then the student should report to the Anesthesia Lounge (4th floor) & Anesthesia Dept. Rotation Coordinator: Dr. Michael Dishart
- b. The student should be appropriately attired and in the O.R. by 7:00 a.m.  
Exception: Wednesdays report by 8:30 a.m.
  - 1) Surgical scrubs (Hospital owned)
  - 2) Shoe covers
  - 3) Hair cover
  - 4) Mask
  - 5) Name Tag- Use surgical tape and pen to make it.
- c. Report statistics at the end of the day to the CVR instructor.  
Give anesthesia card to instructor at end of rotation.

### 2. Objectives

- a. Perform at least 3 successful intubations under the direct supervision of Dr. Michael Dishart, Anesthesiologist or his designate.- have them sign card for each.
- b. Select, gather, and assemble appropriate equipment
- c. Correctly position patient for intubation
- d. Maintain safe, proper oxygenation and ventilation of the patient at all times
- e. Differentiate between the indications for, advantages, disadvantages, limitations of, and procedures for orotracheal and nasotracheal intubation
- f. Identify common complications of intubation

### 3. Evaluation

- a. Prior to the intubation rotation the student must review the intubation procedure and technique on the intubation manikin in the laboratory. The student should solicit instructor feedback regarding their intubation technique.
- b. The student will be required to perform at least 3 successful intubations under direct supervision.

**K. ALLEGHENY GENERAL HOSPITAL AG**

**1. Procedure**

- a. *Students are to report to AGH Respiratory Care Dept. (2nd floor) by the scheduled time.*
- b. *Wear scrubs, clean shoes and lab jacket. You must have your WPH Photo ID Card with you. Bring a notebook but not extra belongings.*
- c. *Students are under the direct supervision of:  
Part Time instructor -Jay Trautman, Staff Therapists assigned & Dir. Tom Hon*
- d. *General WPH School of RC policies and "Clinical Practice Guidelines" will be in effect. Any necessary modifications will be announced by AGH personnel.*
- e. *If it is necessary to report tardiness or absenteeism, it is essential that you acquire the name of the staff member that you speak with about the attendance matter- and remember to also call the school.*
- f. *Submit task completion records to the Director of Clinical Education (WPH) at the end of the rotation. These records can be found in the Bins near the mailboxes.*

**2. Objectives- AGH -Neonatal Intensive Care**

- a. *Perform and/or assist in maintenance of mechanical ventilation including synchronous ventilation.*
- b. *Observe /assist in graphics/volume monitoring, pft testing, & surfactant administration*
- c. *Discuss oscillatory ventilation of the neonate, and perform ventilator maintenance /assessments on these patients*
- d. *Perform and observe a variety of neonatal RC and nursing procedures*
- e. *Participate in MD rounds*
- f. *Assist in patient transport*

**3. Objectives AGH-Trauma Unit - or- Neuro ICU**

- a. *Perform ventilator maintenances, changes, and charting.*

- b. Perform a variety of respiratory care procedures including trach care
- c. Assist with/ perform trach tube &/or cannula changes
- d. Participate in MD rounds
- e. Assist in patient transport
- f. Perform patient assessments
- g. See additional objectives under ICU pg. 4

#### 4. Evaluation

- a. Affective - Rating PASS/FAIL
- b. Cognitive - Test questions submitted by AGH clin. coordinator for Clinical-3 final written exam

### L. COMPUTER LAB

#### 1. Procedure

- a. Sign up for computer time at the school office. NOTE RESERVED TIME.
- b. Sign in and out with Georgann. (initial log of completed sims)
- c. The computer assignments are in a notebook marked "Seniors" in the AV/computer room.
- d. MAKE sure you turn OFF the computer, printer, and screen when you are finished.
- e. The clinical simulations are to be taken until a PASS score is achieved by the student. (attempt to PASS with High % score in both DM & IG)

#### 2. Objectives

- a. Successfully complete the assigned computer packages and simulations.
- b. Identify cognitive areas that require review and review these areas.
- c. Investigate the internet AARC links and complete the corresponding assignment & the case study.
- d. Complete the self assessment exam on the computer as assigned.

#### 3. Evaluation

- A. After the student has completed all practice sims, then each student will be required to individually complete a predetermined SIM as a formal cognitive evaluation. The Evaluation is to be completed prior to the Wednesday of Week 13 - but all practice sims are to be done by Friday of Week 11

Note: reserved time slots on page 2.

- b. The "evaluation" sim is to be obtained from the Clinical Director, after the student has successfully completed the assigned practice SIMS. Each student can attempt the "Evaluation Sim" ONLY ONCE; and it is to be done ALONE. A one point Affective deduction will be issued to anyone present in the AV room who is NOT scheduled to take the evaluation sim.

## M. ARTICLE REVIEW

### 1. Procedure

- a. *As part of the clinical cognitive grade, all students will present an article review (using an article that pertains to the literature search for the topic or study chosen by their research group.) Students should be well prepared to discuss and describe (not read) their article in front of their classmates and the faculty for a time limit of 3 to 5 minutes. (Include title, author, journal, date, year) The faculty will determine a grade based on organization, delivery, knowledge of the article, time limits, and teaching strategy as well as ability to field questions. An index card may be used for notations.*

### GUIDELINES:

#### The article:

- \*Should be a recent one (within the last 5 years- unless by special permission)*
- \*Should be from a peer-reviewed journal, such as Respiratory Care, rather than from a trade magazine like AARCTimes.  
[Avoid web-site articles or textbooks, unless by special permission.]*
- \*Best articles are research articles/ studies.*

#### The presentation:

- \*Summarize your article in a 3 to 5 minute presentation.*
- \*Use of appropriate, readable A-V aids to assist is encouraged, but not necessary.*
- \*You may use one 3 x 5 index card for notes, but reading is strongly discouraged.*
- \*Be sure to state the title, journal, author and date it was published, at the beginning of your presentation.*
- \* Discuss how this article relates to your study.*

NOTES:

X. CLINICAL 3 GRADING

A. GENERAL FORMAT 3 areas (domains) of evaluation are considered.  
The student may achieve point values for each area as noted:

| COGNITIVE          |    | AFFECTIVE |    | PSYCHOMOTOR |    |
|--------------------|----|-----------|----|-------------|----|
| Midterm            | 5  | WPH       |    | PCWP        | 10 |
| Final              | 10 | Midterm   | 14 | Cuff Press  | 10 |
|                    |    | Final     | 14 | ABG draw    | 10 |
| Sims               |    | Offsite   |    |             |    |
| Computer           | 2  | Pass/Fail | 1  |             |    |
| (0-1-2)            |    |           |    |             |    |
| Computer Sim Exams |    |           |    |             |    |
| Midterm(%)         | 2  |           |    |             |    |
| Final (%)          | 2  |           |    |             |    |
| RX Eval            | 2  | Teaching  | 1  |             |    |
| Ventilator         |    |           |    |             |    |
| Rationale          | 5  |           |    |             |    |
| Article            |    |           |    |             |    |
| Review             | 2  |           |    |             |    |
| Clinical           |    |           |    |             |    |
| Cognitive          |    |           |    |             |    |
| Midterm            | 5  |           |    |             |    |

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|        |    |    |    |
|--------|----|----|----|
| TOTAL  |    |    |    |
| POINTS | 40 | 30 | 30 |

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**B. MINIMAL PASS STANDARD**

*The student must achieve a minimal pass level (65%) in each of the 3 domains. Minimal points required to pass each domain are indicated below.*

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| COGNITIVE    | AFFECTIVE      | PSYCHOMOTOR    |
|--------------|----------------|----------------|
| 26<br>Points | 19.5<br>Points | 19.5<br>Points |

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**C. DOMAIN SPECIFICATION**

*If all 3 domains are passed the following procedure will be used to determine the final clinical grade.*

**I. Psychomotor Domain**

*a. For every scheduled formal evaluation 3 levels of performance are recognized:*

*Excellent*

*Good*

*Unsatisfactory - the score attained is less than the established minimal passing grade. The procedure must be repeated until the criteria for minimal acceptable performance for the procedure is met.*

**b. Evaluation Scoring**

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|                | First Attempt | Second Attempt | Beyond Second Attempt   |
|----------------|---------------|----------------|---|
| Excellent      | 10            | 6              | <i>must be satisfactorily completed, but no points are awarded.</i> |
|                | 9             | 5              |   |
| Good           | 8             | 4              |   |
| Passing        | 7             | 3              |   |
| Unsatisfactory | 0             | 0              |   |

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**NOTE: A written D/F warning will be issued for all psychomotor procedures that must be repeated.**

**2. Cognitive Domain**

**a. For all written evaluations a % score is determined. Points are awarded by multiplying % score by the maximum point value for that category.**  
**eg. Written Final - maximum points = 10**

$$\text{scored \%} = 80\%$$

$$\text{Maximum points earned} = .8 \times 10 = 8.0$$

**b. For Ventilator Rationale, the following point system will be used:**  
**A maximum of 5 points can be earned for this evaluation. The student can be awarded from 5 points down to 0 points. There will be no repeats of this evaluation.**

**3. Affective Domain**

**A student may earn up to 30 points for the affective domain. The total actual number of points awarded will be determined by adding earned point values for the Midterm and Final. The earned points are determined by multiplying the earned % grade by the maximum point value for that respective scale.**

**Rating scale:**

**e.g. Midterm - maximum points = 14**

$$\text{scored\%} = 80\%$$

$$\text{Maximum points earned} = .8 \times 14 = 11.2$$

**4. The maximum number of points awarded in the Cognitive or Affective Domains may be less than the total indicated for those domains if any of the following occur:**

**a. Critical Incident**

**1) As stated in "clinical guidelines"**

**2) If a performance problem is observed in 2 or more rotations, a "critical performance pattern" is said to exist. A critical performance pattern will be handled as a critical incident.**

**b. Unexcused clinical attendance situations as stated in the policy manual.**

**c. Improperly submitted task completion sheets as stated in the clinical guidelines.**

**d. Example of Critical Incident**

**Critical Incident - Rx administered to wrong patient  
Occurred in first half of semester**

**Faculty Decision - 1 point deduction from the maximum points available**

*in both the Cognitive and Affective Domains.  
(2 point total penalty)*

*Calculations*

*Affective Domain Adjustment*

*Midterm = 13 points (1 point deduction made here)*

*Final = 14 points (No change in maximum points)*

*Cognitive Domain Adjustments*

*Midterm = 4 points (1 point deduction made here)*

*Final = 5 points (no change in maximum points)*

*Earned % for Midterm*

*Affective - 80%*

*Cognitive - 70%*

*Earned % for Final*

*Affective - 85%*

*Cognitive - 78%*

*Calculation of maximum points earned*

*Midterm*

*Affective .8 X 13 = 10.4 (instead of .8 X 14 = 11.2)*

*Cognitive .7 X 4 = 2.8 (instead of .7 X 5 = 3.5)*

*Final*

*Affective .85 X 14 = 11.9 (no deduction)*

*Cognitive*

*.78 X 5 = 3.9 (no deduction)*

**XI. FINAL GRADING SCALE**

*Total Points Achieved*

*90 - 100      A*

*80 - 89        B*

*70 - 79        C*

*65 - 69        D*