

**NWC EMSS EMT-P Training Program
Clinical Instruction Plan:
NWCH CARDIAC CATH LAB**

I. PURPOSE:

- A. The purpose of the Cardiac Catheterization Lab (cath lab) rotation is to enable paramedic students to observe in the clinical assessment of cardiac patients and emergency interventions for these patients.
- B. This experience must be facilitated by a designated preceptor (see below). The student can maximize the learning potential of this experience by;
 - 1. observing care of acutely ill cardiac patients;
 - 2. asking pertinent questions of the cath lab team;
 - 3. correlating EMS assessments and interventions to those completed in the cath lab.
- C. The Cardiac Cath Lab rotation at Northwest Community Hospital is an observation – only experience.

II. PRIOR EXPERIENCE:

- A. Prior to entry into the paramedic course, all students must be licensed as an EMT with at least six months experience on an ambulance or approved equivalent. Prior to starting the clinical unit rotations, students have completed the introductory elements of the paramedic program including patient assessment, airway management, oxygen delivery, pharmacology, IV access, and medication administration

III. SCOPE OF PRACTICE AND NEED FOR SUPERVISION

- A. A student enrolled in an IDPH-approved paramedic program, while fulfilling the clinical training and field internship requirements mandated for licensure may perform prescribed procedures under the direct supervision of a physician licensed to practice medicine in all of its branches or a qualified registered professional nurse.
- B. Students may not perform any skills that are outside of their scope of practice as defined by the National EMS Education Standards, Illinois EMS Act or Rules, and NWC EMS System policies

IV. PROCEDURE FOR REPORTING TO THE UNIT:

- A. Report to the cath lab on the assigned day and approximately fifteen minutes prior to the assigned shift time. Inform the nurse of your arrival and he or she will provide your preceptor assignment.
- B. Report to the assigned preceptor. Show the preceptor a copy of this instruction plan to remind them of your objectives, scope of practice, and the System's requests of them as a preceptor.
- C. Initiate the paperwork for the cath lab clinical rotation.

V. BEHAVIORAL OBJECTIVES: STUDENTS

During the cath lab rotation, the student will;

- A. **Gain competence and strengthen cardiac patient assessment skills.**
 - 1. This can best be accomplished by working with a physician, mid-level practitioner, or RN preceptor. Practice performing the steps of inspection, palpation, and auscultation. Correlate the kinematics of injury or the nature of the illness with the patient's history to form an impression of their current status. Recognize the importance of frequent reassessments in planning patient care. Question the preceptor about the patient's clinical presentation and how they arrived at their decisions to intervene. Some prefer to teach at the bedside, others prefer you to

observe and ask questions later. Regardless of individual preference, most are willing to instruct when the student shows interest and initiative. Interaction with the cath lab staff can improve your performance in the field and can be a great learning experience, but don't expect them to seek you out. You must initiate the interchange. Do not hesitate to ask for clarification regarding chart contents, terminology, etc.

B. Observe and perform BLS skills as directed

1. Obtaining vital signs
2. CPR and non-invasive obstructed airway maneuvers
3. Non-invasive airway management and suctioning
4. Application of oxygen via NC, NRM, BVM, C-PAP

C. Observe and perform ALS skills as directed under DIRECT supervision after they have been competencied in class;

1. Invasive airway access maneuvers: orotracheal, in-line, conscious sedated, nasotracheal, digital, inverse intubation; needle and surgical cricothyrotomy
2. Application and monitoring of pulse oximetry (SpO₂) and end tidal CO₂ (EtCO₂)
3. Peripheral IV access (including external jugular) and administration of isotonic crystalloid fluids
4. Preparation, administration, and monitoring the response to P.O., SUB-Q, IM, IV, ET, inhaled, SL, IO, and/or topical medications **approved for EMS use**, i.e.

Adenosine	Ipratropium Bromide (Atrovent)
Albuterol (Proventil)	Lidocaine 2% (Xylocaine)
Amiodarone	Magnesium Sulfate
ASA	Midazolam (Versed)
Atropine	Naloxone (Narcan)
Benzocaine 20% (Hurricane)	Nitroglycerin (NTG)
Dextrose (Glucose)	Normal Saline (0.9% NaCl)
Diphenhydramine (Benadryl)	Nitrous Oxide (Nitronox)
Dopamine drip (Intropin)	Ondansetron (Zofran)
Epinephrine (Adrenalin) 1:1,000	Sodium Bicarbonate inj 8.4%
Epinephrine 1:10,000	Tetracaine 0.5% solution
Etomidate (Amidate)	Vasopressin (Pitressin)
Fentanyl Citrate	Verapamil
Glucagon	

5. Obtaining venous blood samples
6. ECG monitor application and rhythm interpretation
7. Instruct a patient in performing Valsalva maneuver
8. Defibrillation/cardioversion
9. Transcutaneous pacing
10. Capillary glucose testing

Although the actual methods of performing some of these skills may differ from hospital to hospital, the basic principles do not. Exercise flexibility if shown a new way to accomplish a skill.

D. Develop communication skills by observing the interaction of patients, family members/significant others, and the cath lab staff.

E. Develop diagnostic skills by reviewing the accuracy of your initial impressions. Observe the process followed by the physician in arriving at his/her medical diagnosis. Learn to use

critical judgment skills in making a differential diagnosis based on clinical presentation and history.

- F. **Observe the effect and side effects of medications and/or treatment** that is rendered in the cath lab. This promotes an introductory understanding of pharmacodynamics. Assist in calculating drug doses and IV drip rates.
- G. **Enhance knowledge of anatomy and pathophysiology** by asking physicians to interpret diagnostic tests. Become more familiar with the major vessels of the heart and watch different methods to open the vessels. Watch as perfusion to the heart increases after the vessel is opened.

VI **PATIENT CARE REPORT REQUIREMENT:**

- A. No patient care report is needed.
- B. Each student is required to write a one - two page paper on a patient in the cath lab. Include in the paper how the patient presented, medical history, all skills and interventions performed by the student and/or staff, and the patient outcome

VII **BEHAVIORAL OBJECTIVES: PRECEPTORS**

During the cath lab clinical rotation, if time and resources allow, the unit preceptor will

- A. take the student on a brief tour of the cath lab.
- B. give a brief unit orientation describing the routine patient flow and the responsibilities usually assumed by nurses, and physicians.
- C. serve as a source of reference in answering specific questions posed by the student regarding unit policy, patient evaluation or treatment rendered.

VIII **EVALUATIONS:**

- A. Unit preceptors shall complete and sign the Student Clinical Activity Record.
 - 1. This form is important for documenting achievement of course objectives.
 - 2. Note if an intervention was observed and rate the skill level of each intervention performed.
 - 3. **Rate the student's performance** using the following scale. Please be objective and honest in your evaluations. If any skills are rated as "needs additional practice", enter an explanation of your rationale in the comments section.
 - a. X Observed activity only
 - b. 4 **Excellent/independently competent.** Is able to perform the skill correctly with no coaching.
 - c. 3 **Above average.** Skill level exceeds entry-level criteria. Can perform safely with minimal coaching.
 - d. 2 **Satisfactory.** Meets entry-level criteria. Performs safely with direct supervision and moderate coaching.
 - e. 1 **Needs additional practice.** Student could verbalize critical steps but skill level is not at an entry level without supervision and coaching. Recommend additional clinical experience.
 - 4. **Sign and date the form** verifying the times documented. Document the times the student entered and left the unit using the 24-hour military clock. The form will not be accepted for credit without these items completed.
 - 5. After completion, return the form to the student or the hospital's EMS Coordinator for forwarding to the Paramedic Course Clinical Coordinator. The only persons with access to this evaluation are the student and Resource Hospital program faculty.
- B. Students shall complete the Unit/Preceptor evaluation form to critique the unit/ preceptor and return it with the Clinical Unit Activity Report forms to the Course Clinical Coordinator

on the next scheduled class day or with the weekly submission of clinical forms.

IX PROFESSIONAL BEHAVIOR AND DRESS

- A. Students shall wear their ambulance uniform or a polo shirt and dark slacks (no jeans). No scrubs are worn in the cath lab to avoid role confusion with staff.
- B. Students shall wear their student name badges at all times while on the unit.
- C. Hair must be neatly groomed. It should not rest on the collar. Students with shoulder length hair shall pull it back with barrettes or into a ponytail/braid.
- D. Students appearing in inappropriate attire shall be dismissed from the area and must reschedule the rotation based on unit availability.
- E. Each student shall bring their own stethoscope, penlight and pen to the clinical experience.
- F. **General rules of conduct**
 - 1. During clinical rotations, students will be required to observe all rules, regulations and policies imposed by the host hospital on its employees. All instances of inappropriate conduct or potential conflict must be immediately resolved in favor of the patient and reported to the Clinical Coordinator as soon as possible. **Call 847-618-4490 or page 847-308-5355.**
 - 2. A student may be required to do additional hours in a clinical site if the preceptor believed that he or she did not meet the experience objectives or there was an insufficient patient population during the clinical rotation.
 - 3. Students should attempt to schedule their breaks so they coincide with their preceptors' breaks. The students must report off to their preceptor when leaving the unit at any time during the clinical rotation.
 - 4. Students must refrain from using tobacco products while on hospital premises.

X ATTENDANCE POLICIES

- A. If a student is unable to attend a clinical rotation as scheduled, they must call the Paramedic Course Clinical Coordinator (**847-618-4490**) at least one hour before the anticipated absence. In addition, the student must notify the designated contact person for that unit of their absence as well.
- B. If a student fails to come to a clinical unit as assigned and doesn't call ahead of time to notify the Paramedic Course Clinical Coordinator of his or her anticipated absence, the student will receive an unexcused absence for that day.
- C. A student who, through personal error, goes to the wrong clinical unit and/or the right unit on the wrong day or time will be sent home and receive an unexcused absence for the day.
- D. If a student arrives more than fifteen minutes late to the clinical area without calling or paging the Paramedic Course Clinical Coordinator, the lateness will be noted as unexcused.
- E. Highly unusual or extenuating circumstances occasionally occur, causing a student to be absent or late without opportunity to provide advance notice. These situations are deemed to be rare. The acceptance of such unusual circumstances as adequate for an "excused absence" is the sole responsibility of the Paramedic Course Clinical Coordinator.
- F. Two unexcused absences and/or late arrivals will be interpreted as irresponsible behavior violating the course ethics policy and may be grounds for dismissal from the program. The attendance infraction will be evaluated by the EMS Administrative Director and EMS Medical Director.
- G. Rescheduling of clinical rotations can only be done based on unit availability. A student may delay entering the field internship, graduating from the course, and may not be eligible to take the state exam if they do not finish the clinical component on time.
- H. No student may leave a clinical unit before completing the assigned shift unless permission is granted by the Clinical Coordinator or the Program Administrative Director.

- I. The policies concerning clinical time are very specific and will be consistently enforced throughout the various program locations. It is important that students handle clinical responsibility in a professional way. The ability to function in a professional and dependable manner will be as important as knowledge in overall success as a paramedic.

APPROVED:

Cath Lab Supervisor

Paramedic Course Clinical Coordinator

Hospital

Date

CB: Prepared: September, 2008

Revised 11/11 (CF); 11/12 (JD); 9/13 (JD); 11/14 (JD)

NWC EMSS EMT-P Training Program
Student Clinical Activity Performance Record
CARDIAC CATH LAB

Name	Hospital	
Date	Time in	Time out

Rating key: For each patient, indicate the rating that most closely reflects the student's performance

X **Observed activity only**

4 **Excellent/independently competent:** Is able to perform the skill correctly with no coaching

3 **Above average:** Skill level exceeds entry level criteria; can perform safely with minimal coaching

2 **Satisfactory:** Meets entry level criteria; performs safely with moderate coaching

1 **Needs additional practice:** Skill level not at entry level of practice; needs additional lab time

Activity	Pt.1	Pt. 2	Pt. 3	Pt. 4	Pt. 5
List each patient's age and gender					
Note each patient's diagnosis					
Detail what intervention the pt received. PTCA with/out stent					
What vessels were occluded					
How many vessels were dilated					
Assessment; SAMPLE history					
Assessment: Physical exam					
Vital signs: BP; P; RR					
Auscultating/interpreting breath sounds					
Application/monitoring SpO ₂ EtCO ₂					
Airway access maneuvers					
Manual opening					
Obstructed airway maneuvers					
Nasopharyngeal/oropharyngeal airways					
Suctioning					
Intubation: List technique					
LMA (Observe only)					
Cricothyrotomy					
Oxygen delivery/ventilatory support Indicate device(s) used: NC/NRM/BVM					
Cardiac monitoring/resuscitation Apply leads; interprets strips correctly					
CPR					
Defibrillation/cardioversion					
Transcutaneous pacing					

Val Salva's maneuver/					
Peripheral IV/IO access (rating)					
List site selected					
List catheter size					
Verify # attempts; list each as S/U					
If unsuccessful : cite possible cause					
Regulates/monitors IV flow					
(MAY NOT GIVE ANY DRUG THAT IS NOT LISTED ON THE SOPS) List drugs/doses/routes for each patient					
Therapeutic communication					
Others, please list:					

Rating key: Select the rating that most closely reflects the student's performance

- X **Did not observe/cannot evaluate**
- 4 **Excellent/outstanding:** Consistently exceeds expectations
- 3 **Above average:** Meets all and exceeds some expectations
- 2 **Satisfactory:** Meets entry level expectations
- 1 **Unsatisfactory:** Student should be coached on this criteria

Professional Characteristics	Rating	Comments
Attitude: Cooperative, conforms to rules and regs of unit; interested in and participates in unit activities		
Knowledge: Demonstrates entry level EMT-P mastery of patient care concepts		
Reliability: Promptness, ability to complete instructions/assignments as directed		
Personal appearance: Adheres to dress code		
Initiative: Seeks out learning experiences		
Communication skills: Clearly communicates their assessment findings to other team members Interacts well with patients and hospital staff.		
Teachable spirit: Accepts feedback without becoming defensive and modifies behavior consistent with coaching		
Pt. privacy: Maintains patient confidentiality		
Overall comments:		

Preceptors' signature

Revised 11/11 (CF); 11/14 (JD)