Southern Illinois Regional EMS System

M-3 Emergency Communications Registered Nurse Education

1. Course Overview:
   1.1. The ECRN course is a combination of self-study modules, certification requirements, classroom didactic and practical sessions and a radio internship.
   1.2. Course requirements for each training option must be completed before beginning radio internship.
   1.3. As specified in IDPH Administrative Code Section 515.470 Emergency Communications Registered Nurse, 8 hours of field experience with the highest level provider in the EMS System.
   1.4. Training options will be determined by the Resource Hospital dependent upon the candidate's qualifications, available resources and need.
   1.5. The Resource Hospital will conduct or over-see all ECRN training.

2. ECRN Training Prerequisites:
   2.1. RN's who specifically work in the Emergency Department/Critical Care areas or functioning in a supervisory role.
   2.2. Successful completion of a basic dysrhythmia course.
   2.3. Successful course completion of American Heart Association Advanced Cardiac Life Support.
   2.4. Successful completion of American Heart Association Pediatric Advanced Life Support, Emergency Nurses Pediatric Course or American Academy of Pediatric Education for Pre-Hospital Providers.
   2.5. Successful completion of the Illinois Trauma Nurse Specialist Course, Emergency Nursing Trauma Nurse Core Course or International Trauma Life Support.

3. Training and Education Requirements:
   3.1. Complete the didactic course work/self study option A, B, or C and the radio internship.
   3.2. Pass the written exam with a score of 80% or above. Students who fail the written exam will be allowed a maximum of one month grace period to review the material and retake the exam.
   3.3. Complete 8 hours of supervised field experience with an ALS EMS provider and a minimum of 3 ALS calls.

4. Radio Internship:
   4.1. The ECRN candidate must complete didactic requirements *before* being approved to begin the radio internship as a provisional ECRN.
   4.2. He/She has up to 3 months and a minimum of 10 ALS calls to complete the radio internship.
   4.3. During the internship, the provisional ECRN is to answer ALS calls under the supervision of the EMS MD, designee or ECRN. Runs which have been initiated by someone other than the provisional ECRN *do not* qualify as certifying runs.
   4.4. ECRN evaluation checklists shall be completed on each ALS call by a preceptor and submitted to the EMS Office at the Resource Hospital. The tapes are to be identified as provisional calls and submitted for review.
   4.5. When the provisional ECRN's minimum 10 calls are evaluated as satisfactory, they will be approved for licensure by the EMS MD and their name submitted to the Illinois Department of public Health for licensure.

4.6. If the runs are evaluated as unsatisfactory, the provisional ECRN may be granted one month extension of the provisional status based on approval of the EMS MD. If the runs are still found to be unsatisfactory at the end of the extension, the provisional will have the option of do one of the following:
  4.6.1. Retake the ECRN course or
  4.6.2. Attend educational offerings addressing the areas of weakness and repeat the radio Internship.
4.7. A file on the ECRN shall be kept at the EMS office of the Resource and/or Associate Hospital.

5. Training Objectives: **(**At the completion of this course, the participant will):
  5.1. Course Introduction: 0.5 hours
    5.1.1. Describe the purpose of the ECRN course.
    5.1.2. Define the roll of the ECRN.
    5.1.3. Define the IDPH requirements to become and ECRN.
    5.1.4. Identify the IDPH requirements for ECRN relicensure.
    5.1.5. Discuss the criteria for successful ECRN course completion
  5.2. EMS Overview: 2 hours
    5.2.1. Describe how an EMS system functions as mandated by State requirements.
    5.2.2. Discuss the organization of the EMS System and how it interfaces with other EMS systems in the region.
    5.2.3. Discuss the different levels of participation at the hospital level.
    5.2.4. Describe the educational requirements and capabilities of the First Responder, EMT-B, EMT-I, EMT-P and PhRN.
    5.2.5. Discuss the roles and responsibilities of the ECRN, EMS MD, and base station physicians.
    5.2.6. Discuss the EMS chain of command and how to properly document and handle Incidents.
    5.2.7. Discuss the EMS Agenda for the Future.
    5.2.8. Discuss the history of EMS.
  5.3. EMS Telemetry Log Documentation: 1 hour
    5.3.1. Identify the components and uses of the ECRN documentation log sheet.
    5.3.2. Discuss the field format for a radio report.
    5.3.3. Compare and contrast the format for a BLS report vs and ILS/ALS report.
    5.3.4. Explain the appropriate documentation to be used based on the ECRN /ALS log.
  5.4. Prehospital Communications: 0.5 hours
    5.4.1. Describe the principles of radio operations that enable MERCI, telemetry, radio, landline, and cellular communications to occur.
    5.4.2. Demonstrate the proper procedures for receiving ALS/ILS calls and BLS calls and appropriate verbal communications.
    5.4.3. Explain the components of a prehospital radio report.
  5.5. Medical – Legal Considerations in EMS: 3 hours
    5.5.1. Discuss the legal context of express, implied, informed and involuntary consents and how they relate to the prehospital care of patients.
    5.5.2. Explain the components/requirements of a valid State of Illinois DNR document and how it relates to the prehospital provider.

5.5.3. Discuss the medical liability of the EMS Medical Director, ECRN, Base Station physician and the EMS provider.
5.5.4. List the four elements of negligence and describe the responsibility of the ECRN Identify the situations where police custody and/or ordering restraints are appropriate in prehospital care.
5.5.5. Discuss the patient destination policy and appropriate documentation.
5.5.6. Describe the criteria to withhold/withdraw treatment in the field and explain the necessary documentation for the ECRN log sheet.
5.5.7. Explain the procedure for treating patients with a Living Will/Advanced Directives.
5.5.8. Explain the treatment for prehospital hospice patients who are not in Cardiopulmonary Arrest.
5.5.9. Explain the prehospital refusal policies and how they pertain to minor (under aged) Patients.
5.5.10 Compare and contrast criminal law versus civil law.
5.5.11 Explain the purpose of the medical record.
5.5.12 Explain the potential liability incurred when a patient refuses treatment and/or transport to a medical facility.
5.5.13 Outline the criteria necessary to conclude a patient is competent.
5.5.14 Describe situations that would constitute patient abandonment in the prehospital setting.

5.6. General Patient Assessment/IMC: 1 hour
5.6.1. Discuss the prehospital assessment for FR-D.
5.6.2. Discuss the prehospital assessment for the EMT-B, I and P to include, as appropriate, the initial assessment, focused history and physical exam, the detailed physical exam and the ongoing patient assessment.
5.6.3. Explain the treatment/care the prehospital provider may provide prior to contacting medical control.

5.7. Cardiac Emergencies: 3 hours
5.7.1. Explain the assessment and treatment of the suspected cardiac patient with chest pain.
5.7.2. Explain the salient features of each of the following EGC's, the patient assessment and treatment per SOP's:
5.7.2.1. Supraventricular bradycardia, AV blocks, and idioventricular rhythms with pulse.
5.7.2.2. Pediatric bradycardic dysrhythmias.
5.7.2.3. Supraventricular tachycardia.
5.7.2.4. Pediatric narrow complex tachycardia.
5.7.2.5. Ventricular tachycardia with a pulse.
5.7.2.6. Ventricular fibrillation/ pulseless ventricular tachycardia.
5.7.2.7. Pediatric ventricular fibrillation/pulseless ventricular tachycardia.
5.7.2.8. Asystole.
5.7.2.9. Pediatric asystolic arrest/pulseless electrical activity (PEA).\
5.7.2.10 Pulseless electrical activity (PEA).
5.7.3. Explain the assessment and procedure when a patient has an implanted cardiac Defibrillator.
5.7.4. Explain the use of an automatic external defibrillator.

5.7.5. Describe the field assessment and treatment for pulmonary edema.
5.7.6. Describe the field assessment and treatment for cardiogenic shock.
5.7.7. Describe the use of Continuous Positive Airway Pressure (CPAP) in CHF/pulmonary Edema.
5.7.8. Briefly compare and contrast monophasic and biphasic devices.
5.7.9. Discuss the use of external transcutaneous pacing.
5.7.10 When presented with a 12-lead ECG, identify significant ST elevation/depression and a left bundle branch block.
5.7.11 Demonstrate specific location's procedures for EMS early activation

5.8. Respiratory Emergencies: 2 hours
5.8.1. Describe the emergent airway obstruction field assessment and management per SOP.
5.8.2. Describe the field management for pediatric respiratory arrest.
5.8.3. Describe acute asthma, COPD with wheezing, and reactive airway disease field assessment and management per SOP.
5.8.4. Describe croup and epiglottitis field assessment and management per SOP.
5.8.5. Describe allergic reactions and anaphylaxis field assessment and management per SOP.
5.8.6. Explain the field use of automatic transport ventilators, their indications, contraindications, and procedure per SOP.

5.9. Medical Emergencies: 3 hours
5.9.1. Outline the assessment and prehospital management for the following:
5.9.1.1. Diabetic/glucose emergencies.
5.9.1.2. Syncope/near syncope (non-traumatic loss of consciousness).
5.9.1.3. Seizures/status epilepticus.
5.9.1.4. Stroke, including:
5.9.1.4.1. Education on Primary Stroke Centers, and Emergent Stroke Ready Facilities.
5.9.1.4.2. Demonstrating specific location's procedure for EMS early activation.
5.9.1.5. Acute abdominal pain.
5.9.1.6. Toxicological emergencies.
5.9.1.7. Snake bite envenomation.
5.9.1.8. Chronic renal failure/dialysis patient emergencies.
5.9.1.9. Heat emergencies.
5.9.1.10 Cold emergencies.
5.9.1.11 Psychological emergencies.
5.9.1.12 Near drowning.

5.10. Field Triage Guidelines/Specialty Transport/Initial Trauma Care:
5.10.1. Identify Level I and Level II trauma Centers for EMS Region 5. 1 hour
5.10.2. Discuss when to divert a trauma patient to a Level I or Level II trauma center and/or the closest hospital relating to:
5.10.2.1. General guidelines.
5.10.2.2. Physiologic factors/anatomic factors.
5.10.2.3. Mechanism of injury.
5.10.2.4. Burn injuries.
5.10.2.5. Pediatric trauma.

5.10.2.6. Maternal trauma.
5.10.2.7. Blunt and penetrating traumatic injuries and arrest.
5.10.3. Identify indications for aeromedical transport versus ground transport.
5.10.4. Describe the components of initial trauma care done in the prehospital setting.
5.10.5. Calculate and complete both adult and pediatric trauma scoring.

5.11. Head/Spine, Ocular, Musculoskeletal and Near Drowning Emergencies: 1.5 hours
- 5.11.1. Describe the field assessment and management of:
  - 5.11.1.1. Head and spinal injuries.
    - 5.11.1.1.1. Including the system's spinal clearance protocol.
  - 5.11.1.2. Ocular emergencies.
  - 5.11.1.3. Near drowning emergencies.
  - 5.11.1.4. Musculoskeletal emergencies.
  - 5.11.1.5. Amputated parts and degloving injuries.
- 5.11.2. Compare and contrast spinal shock, neurogenic shock, and autonomic dysreflexia.

5.12. Chest and Abdominal Trauma/Traumatic Arrest: 1 hour
- 5.12.1. Discuss the field assessment and management of:
  - 5.12.1.1. Sucking chest wound/open pneumothorax.
  - 5.12.1.3. Flail chest.
  - 5.12.1.4. Tension pneumothorax.
- 5.12.2. Discuss the SOP for traumatic arrest in the field.
- 5.12.3. Describe the mechanism of injury, the signs and symptoms and the complications associated with abdominal solid organ, hollow organ, retroperitoneal organ and pelvic organ injuries.
- 5.12.4. Describe the circumstances that would require "Load and Go".

5.13. Burn Injuries: 1 hour
- 5.13.1. Describe how to evaluate the severity of burn injuries utilizing the "Rule of Nines" and "Palm" method.
- 5.13.2. Discuss field management of pain for the burn injured patient.
- 5.14.3. Discuss the field management and assessment of:
  - 5.14.3.1. Thermal burns.
  - 5.14.3.2. Inhalation burns.
  - 5.14.3.3. Electrical burns.
  - 5.14.3.4. Chemical burns.

5.14. Extremity Trauma: 0.5 hours
- 5.14.1. Describe the significance and prehospital treatment principles of upper and lower extremity injuries and open fractures.
- 5.14.2. Outline the treatment and management for amputated parts.

5.15. Abuse/Neglect: 1.5 hours
- 5.15.1. Define battery.
- 5.15.2. Describe the characteristics of abusive relationships.
- 5.15.3. Outline findings that indicate a battered patient.
- 5.15.4. Describe the prehospital considerations when responding to and caring for battered Patients.
- 5.15.5. Identify the types of elder abuse.
- 5.15.6. Describe characteristics of abused children and their abuser.
- 5.15.7. Outline the physical examination of the abused child.

5.15.8. Identify the types of abuse and neglect cases that require mandated reporting and how the ECRN and EMS are to properly report suspected cases.
5.15.9. Describe the characteristics of sexual assault.
5.15.10. Outline the pre-hospital care considerations for the patient who has been sexually assaulted.

5.16. Multiple Victim and Mass Casualty Incidents
Prehospital Incident Command System: 2.5 hours
5.16.1. Describe the protocol to follow when notified that a potential or real disaster and discuss the role of the ECRN.
5.16.2. Define multiple victim incident versus a mass casualty incident.
5.16.3. Define the color-coding system used for categorization of disaster/multi-victim incident patients according to the severity of their injuries.
5.16.4. Define the START* and Jump START* Triage System used for categorization of disaster/multi-victim incident patients according to the severity of their injuries.
5.16.5. Review the incident command system and how it works in the field.
5.16.6. Identify the appropriate personnel who make up disaster scene responders.
5.16.7. Identify appropriate lines of communication at the Resource Hospital and pre-hospital levels during an MCI.

5.17. Disaster Preparedness
Chemical, Biological, Radiological and Nuclear (CBRN) Agents: 7 hours
5.17.1. Recite the responsibilities of the ECRN relating to CBRN events in the field.
5.17.2. Discuss the possible CBRN events in the prehospital setting.
5.17.3. Describe the local and state resources available for bioterrorism events.
5.17.4. Explain the index of suspicion relating to biohazards and weapons of mass Destruction.
5.17.5. Describe the origin, spread and s/s of the following:
5.17.5.1. Small pox (Variola major).
5.17.5.2. Anthrax (Bacillus anthracis).
5.17.5.3. Plague (Yersinia pestis).
5.17.5.4. Tularemia (Francisella tularensis).
5.17.5.5. Q fever (Coxiella burnetti).
5.17.5.6. Botulism (Clostridium botulinum).
5.17.5.7. Hemorrhagic Fevers.
5.17.6. Explain the need for and use of the Nerve Gas Auto Injector.
5.17.7. Successfuly complete the NIMS 100 and NIMS 200 online programs.

5.18. OB/GYN and Neonatal Emergencies: 1 hour
5.18.1. Outline common gynecological field emergencies.
5.18.2. Detail potential obstetrical complications the pre-hospital provider may encounter.
5.18.3. Discuss the steps of neonatal resuscitation in the field.
5.18.4. Discuss the identification, implications, and prehospital management of complicated field deliveries.
5.18.5. Compute an APGAR score from a scenario presented.
5.18.6. Outline the procedure for meconium aspiration.
5.18.7. Outline specific assessment and management for the patient who has been the victim of sexual assault.

5.18.8. Describe appropriate information to be elicited during the OB patient history.
5.18.9. Describe the general prehospital care of the pregnant patient.
5.18.10 Describe the field assessment and management of patients with preeclampsia and Eclampsia.
5.18.11 Explain the various causes of abdominal pain and vaginal bleeding during pregnancy.

5.19. Pediatrics: 1 hour
- 5.19.1. Discuss the considerations for children with special health care needs.
- 5.19.2. Outline the definition, assessment and treatment of the pediatric trauma patient.
- 5.19.3. Utilizing the SOPs, identify the assessment and management of selected pediatric field emergencies:
  - 5.19.3.1. Respiratory.
  - 5.19.3.2. Shock.
  - 5.19.3.3. Dysrhythmias.
  - 5.19.3.4. Seizures.
  - 5.19.3.5. Hypoglycemia/hyperglycemia.
  - 5.19.3.6. Infectious diseases.
  - 5.19.3.7. Poisonings and toxic exposures.
  - 5.19.3.8. Trauma.
- 5.19.4. Describe the components of pediatric resuscitation.

5.20. Pharmacology: 2 hours
- 5.20.1. List the drugs carried by the prehospital personnel in the System.
- 5.20.2. Itemize the indications, contraindications, routes, doses and side effects of the drugs utilized by the prehospital providers in the System.

5.21. Small Group Session: 4 hours
- 5.21.1. These sessions are designed to familiarize the ECRN with prehospital equipment and to familiarize the ECRN with call format and ECRN log.
- 5.21.2. Equipment familiarization provides insights as to the obstacles that the prehospital provider encounters.
- 5.21.3. By reviewing actual ALS calls, the ECRN will become familiar with the way the prehospital provider presents a patient, filling out the log form and additionally, concentrate on the history and information the EMT is conveying. The calls should include, but not be limited to, the following groupings:
  - 5.21.3.1. Medical.
  - 5.21.3.2. Trauma.
  - 5.21.3.3. Cardiac.
  - 5.21.3.4. Legal:
    - 5.21.3.4.1. Minors.
    - 5.21.3.4.2. DNR.
    - 5.21.3.4.3. Refusals.
  - 5.21.3.5. OB/GYN
  - 5.21.3.6. Communications/documentation.

5.21.4. Following each individual call, discussions should include the adequacy of the history/assessment provided by the EMT and the orders given by the ECRN.
- 5.21.4.1. What additional information should have been provided and what additional orders may have been appropriate?
- 5.21.4.2. Was the patient treated appropriately per protocol?
- 5.21.4.3. Would a deviation from the SOP have been acceptable and, if so, the process to deviate from the SOP?
- 5.21.4.4. Were there any problems in communications, "painting the picture" on the scene?
- 5.21.4.5. In addition, emphasis should be placed on filling out the log forms completely and accurately.
- 5.21.4.6. Did the EMT present the history too quickly to write the information down and still respond appropriately to it?

6. Clinical Experience:
   - 6.1. Radio reports relate to pertinent information.
   - 6.2. Must perform in a calm, professional manner when directing care or at the scene.
   - 6.3. Must follow the operational policies of the ambulance service when completing field experience.
   - 6.4. Complete documentation to verify ride time and ALS runs.

7. Re-Approval and Continuing Education:
   - 7.1. The ECRN will be reapproved every four years if:
     - 7.1.1. He/She is a registered nurse in accordance with the Illinois Nursing Act of 1987.
     - 7.1.2. Have completed 32 hours of continuing education in a four-year period.
       - 7.1.2.1. Eight hours of continuing education per year is required and must be specific to critical or emergency care as outlined in the continuing education policy of the Regional Plan.
   - 7.2. ECRN reports will be reviewed monthly for Quality Assurance/Improvement.
     - 7.2.1. ECRN's who are found to be regularly deficient in documentation, knowledge of protocols or management of the prehospital patient will be referred to the EMS MD for remediation/corrective action.
   - 7.3. ECRN's will also be evaluated yearly for competency.
   - 7.4. The ECRN is responsible for maintaining continuing education documentation and submitting it to the EMS office of the Resource Hospital for renewal.

8. Inactive Status:
   - 8.1. Prior to the expiration of the current approval, the ECRN may request to be placed on inactive status. The request shall be made in writing to the EMS MD and the circumstances requiring the request.
   - 8.2. The EMS MD will review and grant or deny the request for inactive status.
   - 8.3. During the inactive status, an individual shall not function as an ECRN.

9. Return to Active Status:
   9.1 If the inactive status was based on a temporary disability, the ECRN shall provide documentation to the EMS MD that the disability has ceased:
      9.1.1. The EMS MD will verify that the ECRN has been examined physically and mentally and found capable to function within the EMS System to return to active status.
   9.2. The ECRN clinical skills must be at the active ECRN level.
   9.3. He/She has completed any refresher training deemed necessary by the EMS MD.