

GOALS

The overall goals of the rural emergency medicine (EM) clinical experience, with the ACGME general competencies addressed by each goal (PC = Patient Care, MK = Medical Knowledge, ICS = Interpersonal and Communication Skills, PROF = Professionalism, PBLI = Practice-Based Learning and Improvement, and SBP = Systems-Based Practice), are as follows:

1. Apply a systematic approach to the evaluation and management of patients with urgent/emergent presentations, focusing on presentations requiring alternate approaches in a rural community ED with limited resources/specialty consultation. (PC, procedural skills)
2. Acquire the medical knowledge pertinent to the practice of emergency medicine, with emphasis on diagnoses unique to a rural patient population. (MK)
3. Develop the interpersonal skills, professional attributes, and cultural competency necessary to deliver optimal care in the rural emergency department, effectively arrange for hospital admission with rural primary care physicians, facilitate the learning of other rural health care providers, and begin to develop leadership skills within a rural medical community. (ICS, PROF)
4. Develop skill in triage, clinical time management, and resource utilization necessary to independently manage a rural ED as a solo practitioner. (ICS, PROF, SBP)
5. Discuss the role the emergency department plays in the greater health care system in a rural community and how the emergency physician may facilitate patient care. (SBP)
6. Integrate self-analysis of clinical skills and medical knowledge base into daily practice, utilizing information technology and scientific evidence to actively participate in continued medical education in a rural setting, including distance learning and teleconferencing, to improve the delivery of high quality patient care. (PBLI)

7. Recognize the appropriate, EMTALA-compliant selection and preparation of patients for transfer to a higher level of care. (PC, SBP)
8. Develop skills required to effectively communicate (by telephone or other telemedicine modality) patient care information to the physician at the receiving hospital. (ICS, SBP)

OBJECTIVES

The following objectives represent a rural EM curriculum on a national level in the United States. Program directors and rotation site supervisors must customize this listing to address the specific needs of rural clinical experiences based on geographic region.

1. Demonstrate the evaluation and management of illnesses and injuries requiring alternate strategies in the rural setting, including procedures typically performed by consulting services in an urban ED. (PC, procedural skills, MK)
 - a. ENT
 - i. Posterior epistaxis management
 - ii. Peritonsillar abscess aspiration/incision and drainage
 - b. Orthopedic injuries/limited orthopedic consultation availability
 - i. Fractures
 1. Reductions
 2. Splinting/immobilization for transfer
 3. Open fracture management for transfer
 - ii. Amputations
 1. Preparation of patient for transfer
 2. Amputation wound care

3. Care of the amputated part
 4. Recognition of non-salvageable injuries
- c. Medical illnesses
- i. Acute myocardial infarction/limited PCI availability
 1. ED thrombolytic administration
 2. Post thrombolytic care/monitoring
 - ii. Ischemic stroke
 1. Administration of thrombolytic therapy
 2. Diagnosis and transfer of CVA/TIA in facility lacking neuroimaging capabilities
 - iii. Upper gastrointestinal hemorrhage/limited endoscopy availability
 1. ED management of variceal hemorrhage without GI consultation
 2. ED management of esophageal foreign body/food impaction without endoscopy
- d. Obstetrics
- i. Management of precipitous delivery
 - ii. Initial management of difficult delivery
- e. Poisonings
- i. Limited antidote availability/alternative antidotes
- f. Psychiatric illnesses
- i. Need for protection/transfer
 1. Assessment and referral to appropriate outpatient care

2. Transfer to inpatient facilities
- g. Psychosocial illnesses complicated by isolation
 - i. Special approaches for isolated populations
 1. Sexual assault resources in a rural community
 2. Child abuse resources in a rural community
 3. Intimate partner violence
 4. Elder abuse
2. Describe the evaluation and management of the unique illnesses and injuries typically resulting from agricultural. (PC, MK)
 - a. Agriculture-related injuries
 - i. Grain augers
 - ii. Balers
 - iii. Combines
 - iv. Forage wagons
 - v. All-terrain vehicles (ATVs)
 - b. Agriculture-related toxins
 - i. Pesticides
 1. Organophosphates
 - ii. Fertilizers
 1. Anhydrous ammonia
 - iii. Green leaf tobacco picker's disease
 - c. Agriculture-related pulmonary disease
 - i. Silo filler's disease/nitrogen dioxide inhalation

- ii. Organic dust (grain dust)
 - iii. Inorganic dust
- 3. Describe the evaluation and management of the unique illnesses and injuries typically resulting from animal-handling activities. (PC, MK)
 - a. Veterinary Medication Toxicity
 - i. Tilmicosin
 - ii. Carfentanil
 - iii. Clenbuterol
 - iv. Testosterone/estradiol
 - v. Dinoprost
 - vi. Cloprostenol
 - b. Poisonings/Asphyxiations
 - i. Hydrogen sulfide
 - c. Infectious diseases
 - i. Bovine tuberculosis
 - ii. Brucellosis
 - iii. Anthrax
 - iv. Leptospirosis
 - v. Tularemia
 - vi. Psittacosis
 - vii. Q fever
- 4. Describe the evaluation and management of the unique illnesses and injuries typically resulting from mining activities. (PC, MK)

- a. Pulmonary illness
 - i. Coal worker's pneumoconiosis
- 5. Describe the evaluation and management of the unique illnesses and injuries typically resulting from maritime/commercial fishing activities. (PC, MK)
 - a. Marine envenomations
- 6. Describe the evaluation and management of the unique illnesses and injuries typically resulting from logging activities. (PC, MK)
 - a. Chainsaw injuries
- 7. Describe educational needs of rural health care providers and interventions to improve rural emergency care. (ICS, PROF,SBP)
 - a. Outline and direct educational program for rural EMS providers, with emphasis on unique aspects of the rural environment
 - i. Farm equipment injuries and extrications
 - ii. Manure pit / closed space extrications
 - iii. Mine-related extrications
 - iv. Logging-related extrications
 - b. Outline emergency action plans for emergencies in rural primary care clinics
- 8. Describe the limitations imposed on health care providers serving rural populations and the role the ED plays in assisting with health care delivery (i.e. distance from care, limited resources, limited diagnostics, transportation, etc.). (SBP)
- 9. Demonstrate cultural competency for unique rural patient groups, such as Native Americans and migrant workers, and undocumented immigrants. (ICS, PROF)

10. List the benefits and limitations of clinical practice in an ED serving in a rural community.

(SBP)

11. Demonstrate proficiency in the selection of ED patients for transfer to a higher level of care, including necessary patient care measures in preparation for transfer and communication of essential patient data to the receiving facility with specific attention to EMTALA compliance issues. (PC, ICS, SBP)