AMERICAN ACADEMY OF FAMILY PHYSICIANS

Recommended Curriculum Guidelines for Family Medicine Residents

Urgent and Emergent Care

This document was endorsed by the American Academy of Family Physicians.

Introduction

Each family medicine residency program is responsible for its own curriculum. The AAFP Commission on Education's Subcommittee on Graduate Curriculum has created this guide as an outline for curriculum development, and it should be tailored to the needs of the program. Through a series of structured and/or longitudinal experiences, the curricula below will support the overall achievement of the core educational competencies defined by the Accreditation Council for Graduate Medical Education and provide guideposts to program requirements specific to family medicine. For updates and details, please refer to the ACGME website at www.acgme.org. Current AAFP Curriculum Guidelines may be found online at www.aafp.org/cg. These guidelines are periodically updated and endorsed by the AAFP and, in many instances, other specialty societies, as indicated on each guideline.

Preamble

The family physician is the most broadly trained specialist in the health care profession. Family physicians work in various medical settings, including office-based clinics, urgent care facilities, emergency departments and hospital floors. The types of complaints they encounter and the specific settings they work in can vary greatly depending on the location of the country where the physician practices and the local resources available. There is considerable overlap in the patient populations served by family physicians and emergency physicians, as well as the competencies, knowledge, skills and attitudes necessary to succeed in each setting.

This guideline seeks to identify the unique and critical elements that might not be adequately addressed in other curricular areas (e.g., medicine, pediatrics, surgery, obstetrics, orthopedics, ophthalmology). It is assumed that the management of acute emergent conditions in each required specialty rotation is adequately addressed within those curricula. Residents' future unique practice settings (e.g., solo emergency

practice, rural/remote settings that require significant stabilization for distant transport) will determine the need for additional knowledge, procedural skills and mastery of these elements.

Prompt assessment, intervention and disposition are critical elements of the emergency medicine experience and are frequently performed in the face of multiple simultaneous patient encounters. The resident will need to become comfortable leading and participating as a member of a health care team that treats patients in urgent and emergent situations, as well as learning the appropriate use of consultants in patient care.

Patient Care

At the completion of residency, residents should be able to:

1. Demonstrate an ability to rapidly gather and assess information pertinent to the care of patients in urgent and emergent situations
2. Develop treatment plans appropriate to the stabilization and disposition of these patients and know how these integrate into the patients' continuity-based health care
3. Recognize and provide life-saving treatments for immediate life-threatening conditions common to emergency medicine settings
4. Identify the indication and perform procedures as appropriate for the stabilization of the patient in an urgent and/or emergent care setting
5. Provide care in a professional and caring manner along with sensitivity to cultural and ethnic diversity to appropriately inform and educate patients and families in order to elicit their participation in shared medical decision making
6. Demonstrate the ability to recognize indications for and perform or consult for the following procedures:
    a. Airway techniques (adults and children)
        i. Noninvasive ventilation
            1) Bag valve mask ventilation
            2) Continuous positive airway pressure/bilevel positive airway pressure
            3) High-flow oxygen
        ii. Invasive ventilation
            1) Intubation
                a) Direct laryngoscopy vs. video laryngoscopy
                b) Cricothyroidotomy — surgical vs. needle
            2) Supraglottic devices
                a) Laryngeal mask airway
        iii. Airway adjuncts
            1) Oropharyngeal and nasopharyngeal airways
            2) Bougie
            3) Fiberoptic techniques
        iv. Ventilatory management//monitoring
    b. Resuscitation

i. Cardiopulmonary resuscitation for adults, children, neonates
ii. Management of acute cardiorespiratory arrest in all age groups and implementation of the skills of advanced cardiovascular life support, pediatric advanced life support, the Neonatal Resuscitation Program and advanced trauma life support to lead a team resuscitative effort
iii. Post-resuscitation care
iv. Massive transfusion
v. Intravenous/arterial access
    1) Arterial line placement
    2) Central line placement, including cordis placement
vi. Interosseous line placement
vii. Thoracotomy
viii. Cardiovascular
    1) Synchronized cardioversion
    2) Defibrillation

c. Anesthesia and acute pain management
    i. Regional anesthesia
    ii. Procedural sedation
d. Diagnostic and therapeutic procedures
    i. Abdominal/gastrointestinal
        1) Gastrostomy tube replacement
        2) Nasogastric tube
        3) Paracentesis
        4) Tamponade of variceal bleeding
    ii. Cardiovascular/thoracic
        1) Cardiac pacing (transcutaneous, transvenous)
        2) Cardioversion
        3) Electrocardiogram interpretation
        4) Pericardiocentesis
        5) Thoracentesis
        6) Thoracostomy
    iii. Cutaneous
        1) Escharotomy
        2) Incision and drainage
        3) Nail trephination
        4) Wound-closure techniques
        5) Wound management
    iv. Head, ear, eye, nose, throat
        1) Epistaxis control
        2) Drainage of peritonsillar abscess
        3) Laryngoscopy
        4) Lateral canthotomy
        5) Slit lamp examination
        6) Tonometry
        7) Tooth stabilization
        8) Corneal foreign body removal

9) Auricular hematoma drainage

v. Musculoskeletal
   1) Arthrocentesis
   2) Compartment pressure measurement
   3) Fracture/dislocation immobilization techniques
   4) Fracture/dislocation reduction techniques
   5) Spine immobilization techniques

vi. Nervous system
   1) Lumbar puncture

vii. Obstetrics and gynecology
   1) Delivery of newborn
   2) Resuscitative hysterotomy
   3) Sexual assault examination

viii. Psychobehavioral
   1) Violent patient management, including the safe use of restraints

ix. Renal and urogenital
   1) Bladder catheterization (urethral, suprapubic)
   2) Testicular detorsion

x. Ultrasound
   1) Use of diagnostic and procedural ultrasound

xi. Other
   1) Mass casualty triage
   2) Multiple patient management
   3) Critical incident stress debriefing

Medical Knowledge

Family medicine residents should demonstrate the ability to apply knowledge of the following:

1. The principles of care through the following continuums of medical management:
   a. Pre-hospital emergency care and its importance in the initial stabilization of patients
      i. Emergency medical services
      ii. Communication systems and protocols, including appropriate implementation of community and systemwide resources
      iii. Providing medical command to community EMS providers
   b. Prioritization and triage
   c. Resuscitation and stabilization
   d. Reassessment and monitoring
   e. Understanding key differences between pediatric and adult patients
   f. Consultation
   g. Referral
   h. Disposition
      i. Safe discharge
      ii. Transfer protocols

i. Mass casualty and disaster planning, along with coordination of care with appropriate government and private agencies
j. Legal requirements specific to emergency department care and services
    i. Emergency Medical Treatment and Labor Act

2. Assessment and management of conditions in the following areas:
    a. Trauma
        i. Primary and secondary assessment of the traumatically injured patient
            1) Understanding of the advanced trauma life support algorithms of systematic care
            2) Mechanism of injury
                a) Blunt trauma (e.g., heart, lung, intra-abdominal organ rupture)
                b) Penetrating trauma (e.g., gunshot, stab wounds)
            3) Site of injury
                a) Head and neck
                b) Spine and spinal cord
                c) Face and special organs
                d) Soft tissue
                e) Chest
                f) Abdomen
                g) Extremities
                h) Genitourinary
    b. Psychiatric emergencies
        i. Mood disorders
        ii. Homicidal ideation
        iii. Suicidal ideation and attempt
        iv. Acute mania
        v. Acute anxiety and panic disorders
        vi. Addiction disorders
            1) Overdose syndromes
            2) Drug-seeking behaviors
        vii. Pain management guidelines, including acute pain management in chronic pain patients and patients with opioid use disorder, and the role of the emergency physician in limiting prescription drug diversion
        viii. Suicide risk assessment and involuntary commitment
        ix. Management of combative patients
        x. Acute alcohol and drug intoxication and withdrawal
        xi. Utilization of mental health services in the emergent setting
    c. Environmental and exposure injuries
        i. Burns (e.g., chemical, thermal, electrical)
        ii. Electrocution and lightning injuries
        iii. Bites (human and animal), stings and other envenomation
        iv. Poisonous plants
        v. Hypersensitivity reactions and anaphylaxis
        vi. Temperature-related illness
        vii. Altitude-related illness
        viii. Dysbarism

ix. Radiation emergencies

d. Obstetric and gynecologic emergencies
   i. Sexual assault and rape
   ii. Acute pelvic pain
   iii. Ectopic pregnancy
   iv. Spontaneous abortion and miscarriage
   v. Precipitous delivery
   vi. Acute medical complications of pregnancy (e.g., preeclampsia, eclampsia, placenta previa, placental abruption, preterm labor)
   vii. Vaginal bleeding
   viii. Emergency contraception
   ix. Trauma care related to pregnant patients

e. Victims of violence
   i. Child abuse
   ii. Partner/spousal abuse
   iii. Elder abuse
   iv. Other forms of assault

3. Recognition and management of acute life-threatening conditions in the following organ systems:
   a. Acute neurologic disorders
      i. Altered mental status and delirium
      ii. Acute cerebrovascular accidents
         1) Hemorrhagic
         2) Embolic
            a) Understanding of the indications and management of chemical and mechanical thrombolysis in acute embolic CVA
            b) Transient ischemic attack
      iii. Acute infections of the nervous system, meningitis and encephalitis
      iv. Seizures
      v. Acute headache management
      vi. Acute spinal cord compression (traumatic, oncologic, infectious)
      vii. Closed head injury (e.g., concussion, contusion)
      viii. Syncope
   b. Acute respiratory disorders
      i. Acute respiratory distress and failure
      ii. Pulmonary embolism
      iii. Pulmonary infections
      iv. Pneumothorax
      v. Exacerbation of obstructive and restrictive lung disease (e.g., asthma, chronic obstructive pulmonary disease)
      vi. Respiratory distress in neonates and infants
      vii. Severe pneumonia, flu and other respiratory conditions
   c. Acute cardiovascular disorders
      i. Acute chest pain
      ii. Cardiac arrest

iii. Life-threatening dysrhythmias
iv. Acute coronary syndrome (e.g., unstable angina, non-ST segment elevation myocardial infarction, ST-segment elevation myocardial infarction)
v. Heart failure (acute and exacerbation of chronic heart failure)
vi. Pericardial effusion, pericarditis and cardiac tamponade
vii. Thoracic and abdominal aortic aneurysm dissection and rupture
viii. Thrombolytic therapy
ix. Hypertensive urgencies and emergencies
x. Acute vascular obstruction

d. Acute endocrine disorders
   i. Diabetic ketoacidosis and hyperosmotic nonketotic state
   ii. Thyroid emergencies (thyroid storm and myxedema coma)
   iii. Acute adrenal insufficiency
e. Acute gastrointestinal disorders
   i. Acute abdomen and initial surgical evaluation
   ii. Alimentary
      1) Gastrointestinal bleeding
      2) Diverticulitis
      3) Ischemic bowel disease
      4) Bowel obstruction
      5) Appendicitis
   iii. Hepatobiliary and pancreatic
      1) Cholecystitis, cholangitis, pancreatitis
      2) Hepatitis
      3) Liver failure
f. Acute genitourinary system disorders
   i. Sexually transmitted infections
   ii. Acute testicular pain (e.g., testicular torsion, epididymitis)
   iii. Renal colic and nephrolithiasis
   iv. Acute pyelonephritis
   v. Acute urinary retention
   vi. Priapism
   vii. Genital trauma
g. Acute musculoskeletal disorders
   i. Initial fracture management, including basic splinting and casting
   ii. Reduction of acutely dislocated joints
   iii. Acute joint sprains and strains
   iv. Compartment syndromes
h. Acute cutaneous disorders
   i. Stevens-Johnson syndrome
   ii. Toxic epidermal necrolysis
   iii. Staphylococcus scalded skin syndrome

4. Recognition and management in the following areas:
   a. Toxicologic emergencies, toxidromes and their treatment
      i. Acute overdose and pharmacokinetics

ii. Accidental poisonings and ingestion
iii. Treatments and antidotes
iv. Withdrawal syndromes and treatment
v. Access to databases and poison control

b. Mass casualties
   i. Bioterrorism
   ii. Environmental/natural disaster
   iii. Nuclear
   iv. Biological and infectious
   v. Chemical

c. Shock and initial resuscitative measures required for each unique condition
   i. Distributive shock
   ii. Cardiogenic shock
   iii. Hypovolemic shock
   iv. Obstructive shock

d. Acute infectious emergencies
   i. Systemic inflammatory response syndrome
   ii. Sepsis, severe sepsis, septic shock

e. Special circumstances
   i. Resuscitations (e.g., coordination, communication, recording)
   ii. Drowning and near-drowning
   iii. Sudden infant death syndrome
   iv. Metabolic disorders, electrolyte disorders and acid-base imbalance
   v. Temperature dysregulation
      1) Acute heat exhaustion and heat stroke
      2) Cold exposure injuries (e.g., hypothermia and frostbite)
   vi. Acute ophthalmologic emergencies
      1) Acute painful red eye
   vii. Acute hematologic and oncologic emergencies
      1) Sickle cell disease crises (pain, vaso-occlusive crisis, acute chest syndrome)
      2) Acute anemia
      3) Acute febrile neutropenia
      4) Tumor lysis syndrome
      5) Disseminated intervascular coagulation
      6) Leukostasis
      7) Thrombocytopenic emergencies
   viii. Acute electrolyte derangements

f. Indications and interpretation of diagnostic tests pertinent to the urgent and emergent setting
   i. Electrocardiograms
   ii. Blood laboratory chemistry and hematologic studies
   iii. Urinalysis
   iv. Interpretation of fluid analysis
      1) Joint
      2) Spinal

3) Peritoneal
4) Pleural

v. Radiologic imaging of:
1) Acute head and cervical spine injuries
2) Chest pathology
3) Acute abdominal conditions
4) Pelvis and extremity injuries

g. Medicolegal issues
i. Informed consent and competency
ii. Code status and guardianship
iii. Withholding and termination of treatment
iv. Laws (e.g., commitment, Good Samaritan, reportable conditions, Emergency Medical Treatment and Labor Act)
v. Liability (e.g., duty to treat, negligence and standard of care, risk management)

h. Social and other special issues
i. Homelessness
ii. Patients seeking drug and alcohol rehabilitation
iii. Underinsured and uninsured patients

i. Antibiotic stewardship

j. Disease prevention
i. Active and passive immunization
ii. Antibiotic prophylaxis

Interpersonal Communication

At the completion of residency, residents should be able to:

1. Communicate effectively and compassionately with patients and families
2. Communicate effectively with physicians and other health care professionals and to work effectively in a team, especially in facilitating transitions of care
3. Effectively and appropriately consult and refer in the emergency setting
4. Promote a safe environment where patients and others involved in their care can actively engage in their care decisions
5. Assist patients and others involved in their care with locating reputable medical information on the internet and from other sources
6. Discuss internet safety and protection of health information

Systems-Based Practice

At the completion of residency, residents should be able to:

1. Have an awareness of the importance of cost containment and the need to appropriately utilize medical resources
2. Have an awareness of the role of the emergency department in disaster planning for a community

3. Understand the role of the family physician in disaster planning, training and integration into the various government and private agencies responding to natural and man-made disasters
4. Have an awareness of the role of pre-hospital care in emergency department outcomes and disposition
5. Understand resources available outside of the emergency department to allow for more continuity-based health care
6. Have the requisite skills to appropriately utilize the resources available to provide care in urgent and emergent care settings, including laboratory, radiology, other ancillary services and consultations with specialists, and transfer to a higher level of care

Practice-Based Learning

At the completion of residency, residents should be able to:

1. Have a commitment to lifelong learning regarding urgent and emergency conditions that can present in the various settings where a family physician may practice
2. Demonstrate an ability to learn from experience, perform self-analysis of practice patterns, and participate in peer review of practice patterns and quality improvement

Professionalism

At the completion of residency, residents should be able to:

1. Use a professional and caring manner and sensitivity to cultural and ethnic diversity to appropriately inform and educate the patient and family and elicit their participation in medical decision making
2. Have sensitivity to and knowledge of the social and emotional factors relating to illness
3. Intervene effectively and professionally in complex emergent situations relating to psychiatric evaluations, disasters, child abuse and interpersonal violence
4. Have awareness of and willingness to overcome one's own biases, attitudes and stereotypes, as well as recognize how attitudes and stereotypes affect patient care
5. Demonstrate sensitivities toward differences among people, including differences in gender identity, sexual identity, race, age, ethnicity and culture
6. Demonstrate awareness of implicit bias, particularly in relationship to race and ethnicity

Implementation

A significant portion of the management of emergencies will be provided in clinical settings other than the emergency department. Although much of the content of this guideline may be fulfilled while the resident is working in the emergency department or

urgent care setting, additional off-site experiences (e.g., helicopter or ground transport exposure) may be of educational value. Incorporating urgent care experiences into the overall educational plan may provide significant adjunctive learning as an increasing number of family physicians work in urgent care centers.

Residents should have the opportunity to concentrate time spent in the emergency department on the evaluation and management of patients who have presentations atypical of other outpatient experiences. Knowledge and skill acquisition may be supplemented through additional lecture series or course work, including Advanced Burn Life Support, Advanced Cardiovascular Life Support, Advanced Life Support in Obstetrics, Advanced Trauma Life Support, Pediatric Advanced Life Support, Neonatal Resuscitation Program and other such courses.

Resources

Knoop KJ, Stack LB, Storrow AB, Thurman R. eds. *The Atlas of Emergency Medicine, 4e* New York, NY: McGraw-Hill; 2020.

Walls RM, Marx JA, Gausche-Hill M. *Rosen's Emergency Medicine: Concepts and Clinical Practice*. 9th ed. Philadelphia, Pa.: Saunders; 2018.

Pfenninger JL, Fowler GC. *Pfenninger & Fowler's Procedures for Primary Care*. 3rd ed. Waltham, Mass.: Saunders; 2019.

Roberts J. *Roberts and Hedges' Clinical Procedures in Emergency Medicine*. 6th ed. Philadelphia, Pa.; Elsevier Saunders; 2013.

Tintinalli JE, Stapczynski J, Ma O, Yealy DM, Meckler GD, Cline DM. eds.*Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 8e* New York, NY: McGraw-Hill; 2016.

Websites

American Board of Emergency Medicine. www.abem.org/public/

American College of Emergency Physicians. www.acep.org/

Centers for Disease Control and Prevention. www.cdc.gov/

CDC. Emergency Preparedness and Response. http://emergency.cdc.gov/

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