AMERICAN ACADEMY OF FAMILY PHYSICIANS

Recommended Curriculum Guidelines for Family Medicine Residents

Patient Safety

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

All physicians share responsibility for promoting patient safety and enhancing the quality of patient care. Graduate medical education must prepare residents to provide the highest level of clinical care and maintain a continuous focus on their patients' safety, individual needs and humanity. It is the right of each patient to be cared for by residents who:

- Are appropriately supervised
- Possess the requisite knowledge, skills and competencies in various realms
- Understand the limits of their knowledge and experience
- Seek assistance as required to provide optimal patient care
- Demonstrate a growth mindset and continuous feedback and improvement

Preventing errors and adverse events in health care is integral to the patient-centered model of care. A family physician should be proficient in recognizing, managing and

preventing medical errors in all settings where they train. Family physicians should be champions of a culture of patient safety, which also includes identifying and working to overcome bias in the clinic. During residency training, an integrated approach to both patient safety and quality improvement achieves safer patient care. It is also important to understand the organizational policies and procedures of each institutional structure they work in and protect patients from harm throughout their care under the designated family physician team in different health care settings, whether in the clinic, hospital or nursing home. This approach prepares graduates to act not only as participants, but also as engaged leaders in our future health care systems.

Patient Care

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

1. Apply a humanistic, compassionate and transparent approach to the care of patients involved in an adverse medical event/outcome
2. Apply honesty and integrity in all interactions with patients and their families and with medical and clinical staff when discussing adverse medical events/outcomes
3. Recognize the psychosocial, cultural and economic impact of medical errors on patients and their families
4. Recognize and confront bias and discrimination, which can compromise patient safety
5. Support patients and their families through consultation, evaluation, treatment and rehabilitation necessitated by an adverse medical event/outcome

Medical Knowledge

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

1. Common patient safety terms
    a. Patient safety – The National Academy of Medicine report defines patient safety as avoiding harm to patients from care that is intended to help patients. The National Quality Forum defines patient safety as the prevention and mitigation of harm caused by errors of omission or commission in health care, and the establishment of operational systems and processes that minimize the likelihood of errors and maximize the likelihood of intercepting them when they occur.
    b. Adverse event – An event in which care results in an undesirable clinical outcome; an outcome not caused by an underlying disease that prolongs the patient’s stay, causes permanent patient harm, requires life-saving intervention or contributes to death.
    c. Patient harm – The U.S. Department of Health and Human Services, Office of Inspector General defines harm to a patient because of medical care or in a health care setting, including the failure to provide needed care. Patient harm refers collectively to adverse events and temporary harm events.

d. Temporary harm event – The HHS, OIG define a temporary harm event as an event in which care resulted in patient harm and required a medical intervention, but did not prolong the patient stay, cause lasting harm or require life-sustaining intervention.
e. Near miss - An act of commission or omission that could have harmed the patient but did not cause harm because of chance, prevention, or mitigation.

2. Just Culture – Just Culture refers to promoting the reporting of errors, adverse events and near misses by eliminating blame for human error so the organization can learn from mistakes and includes:
   a. Understanding the following behaviors in relation to harm events:
      i. Human error
      ii. At-risk behaviors
      iii. Reckless behavior
   b. Understanding how the Just Culture focus has changed from individual punishment to correcting flawed systems and how individuals need to be held accountable for errors due to reckless behaviors
3. Highly reliable organization
   a. Understanding of high-reliability characteristics:
      i. Preoccupation with failure
      ii. Reluctance to simplify
      iii. Sensitivity to operations
      iv. Deference to expertise
      v. Commitment to resilience
   b. Understanding of HRO impacts to organizations, especially in the post-pandemic era
4. Failure modes and effects analysis
   a. Understand the benefits of FMEA
   b. Review the FMEA process, including:
      i. Failure mode
      ii. Failure causes
      iii. Failure effects
      iv. Likelihood of detection rating
      v. Severity rating
      vi. Risk-profile number calculation
      vii. Actions to reduce the occurrence of failure
5. Root-cause analysis and actions
   a. Understand the method of RCA and how this method can reduce future harm events occurring
   b. Review the RCA process, including:
      i. Identifying and classifying events appropriate for RCA-review versus blameworthy events
      ii. Risk-based prioritization using safety assessment code matrix
      iii. Fact-finding and flow diagram
      iv. Develop causal statements
      v. Identification of solutions and corrective actions using the actions hierarchy tool to assess action effectiveness
   c. Understand the concept of the Swiss cheese model of safety incidents

   d. Know your organization's risk management team, which may include the following:
      i. Patient safety officer
      ii. Risk manager
      iii. Director of quality improvement
      iv. Infection controls professional
      v. Vice president of legal counsel
      vi. Chief medical officer
      vii. Chief executive officer
      viii. Board of directors
6. Reportable events in health care
   a. Understand the latest endorsement of the National Quality Forum's Serious Reportable Events:
      i. List of surgical or invasive procedure events
      ii. List of product or device events
      iii. List of patient protection events
      iv. List of care management events
      v. List of environmental events
      vi. List of radiologic events
      vii. List of potential criminal events
   b. Knowledge of your practicing state's list of reportable events in health care
   c. Knowledge of your organizational mandatory reportable event, including:
      i. How to report
      ii. Description of your organization's process for reporting patient safety events, including anonymous hotline and online reporting mechanisms
      iii. Understanding your organization's online reporting system
7. Events disclosure
   a. Open disclosure does not equate with an admission of liability and does not attach blame. It ideally includes:
      i. Explanation of the adverse event, potential consequences and appropriate remedial action
      ii. Apology and
      iii. Information about what will be done to avoid recurrences
   b. Understand the importance of disclosure
   c. Understand the **C**ommunication **and O**ptimal **R**esolution process by the Agency of Healthcare Research process and application. The CANDOR process includes:
      i. Identification of a CANDOR event
      ii. CANDOR System Activation
      iii. Response and disclosure
      iv. Investigation and analysis
      v. Resolution
   d. Awareness of your organization's mechanisms that provide emotional support to residents who are emotionally distraught when involved in adverse patient safety events
8. National patient safety goals

    a. Knowledge of the national patient safety goals in relation to the network's current patient safety goals and priorities
9. Medication management to prevent medication error:
    a. Understanding the medication management process, including medication:
        i. Ordering
        ii. Storage
        iii. Preparation
        iv. Administration
        v. Monitoring and documentation
    b. Understanding how medication errors occur due to a wide range of factors, including, but not limited to:
        i. Inadequate knowledge of patients and their clinical conditions
        ii. Inadequate knowledge of medications
        iii. Confusion regarding the name of the medication
        iv. Insufficient history-taking
        v. The patient is not following instructions
        vi. Prescription auto refills for patients not seen for extended periods of time

Systems-Based Practice

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

1. Recognize the impact of patient, physician, system and process factors on patient safety
2. Identify, report, manage and prevent medical errors
3. Identify and address microaggressions and macroaggressions, which can undermine a culture of safety
4. Be aware of the importance of partnership between physicians, other health care team members and patients to promote patient safety
5. Understand the role of the risk management team in patient safety
6. Actively participate as a representative on a hospital, clinic or health system safety or quality committee

Practice-Based Learning

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

1. Apply learned skills to critique their future unsupervised practice and implement safety improvement processes
2. Understand the importance of safety methods and practice in improving patient care
3. Analyze the care they and their practice provide and compare it to external standards, thereby identifying areas for improvement
4. Utilize self-directed learning to further knowledge and competency in patient safety

5. Participate directly or indirectly in system improvement plans that promote patient safety and prevent medical errors
6. Develop a personal improvement plan in patient safety competency acquisition for the level of training
7. Role model self-directed and system improvement activities
8. Interpret trending patient safety events as they pertain to the design and implementation of system improvements

Professionalism

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

1. Maintain awareness that a culture of safety requires continuous identification of vulnerabilities and a willingness to deal with them transparently
2. Apply honesty and integrity in all interactions with patients and their families and with medical and clinical staff
3. Maintain awareness of their level of competence in the recognition, management and prevention of medical errors
4. Interpret feedback after reporting medical errors, near misses and unsafe conditions
5. Promote a climate that supports the recognition of, and adherence to, patient care protocols by team members
6. Adhere to network protocols to promote patient safety and prevent medical errors
7. Identify and address bias and discrimination to create a safe environment for patients and colleagues
8. Adopt a growth mindset and ability to accept feedback when given

Interpersonal and Communication Skills

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

1. Work in a well-coordinated manner to achieve organizational patient safety goals, understanding their role(s) within health care teams and with other health care providers
2. Function as active participants in interdisciplinary patient safety activities
3. Disclose applicable patient safety events to patients and their families via:
    a. Modeling by faculty
    b. Participation in real-life discussions
    c. Simulated or real discussions with faculty supervision
    d. Participation in effective and safe handoffs and transitions of care
4. Show education in the following:
    a. Child abuse and neglect
    b. Institutional employee safety
    c. Opioid management
    d. Elder abuse and neglect
    e. Patient competency determination

    f. Recognition of implicit biases
5. Have exposure to institutional safety and quality committees

Implementation

Implementation of this curriculum is dependent upon an interactive didactic and clinical approach to learning. Core cognitive ability and skill are acquired in lectures and workshops and integrated into the quality, safety and risk management lecture series. The lecture series and workshops cover a robust range of topics, including case management; hospital quality goals; handoff communication and patient safety; documentation; responsibility of the patient safety officer; state patient safety authority; online internal reporting system; quality cycle; root-cause analysis; failure modes and effects analysis; institutional safety; categories of patient safety events; use of registries; health care disparities; and community needs assessment.

Additional opportunities to advance knowledge in patient safety are afforded through the following: grand rounds presentations; morbidity and mortality presentations; orientation and reorientation programs; family medicine department meetings; and resident representation on patient safety, quality and associated committees at the hospital.

Residents obtain additional patient safety knowledge and experience longitudinally throughout their three years in the office and hospital. Faculty, attending physicians, consultants and quality and safety staff guide residents in patient safety during their patient care experiences. Faculty physicians should share personal experiences with patient safety events as a component of this teaching process. Faculty members should serve as role models for handling patient safety concerns and give guidance on preventing adverse medical events and near misses. Cases that arise during residency training will have the most significant impact on the learning process for the resident.

Resources

Halbach J, Sullivan L. Medical errors and patient safety: a curriculum guide for teaching medical students and family practice residents. *MedEdPORTAL*. 2005;1:101.

Potts S, Shields S, Upshur C. Preparing future leaders: an integrated quality improvement residency curriculum. *Fam Med*. 2016;48(6):477-481.

Soni K, Ranji S. Residency curriculum in quality improvement and patient safety.

World Health Organization. Multi-professional patient safety curriculum guide. www.who.int/patientsafety/education/curriculum/Curriculum_Tools/en/index1.html.

WHO. WHO patient safety curriculum guide for medical schools. www.who.int/patientsafety/education/curriculum_guide_medical_schools/en/

Website Resources

Accreditation Council for Graduate Medical Education. www.acgme.org

American Academy of Family Physicians. www.aafp.org

Institute for Healthcare Improvement (IHI) Open School Online Courses. www.ihi.org/education/ihiopenschool/courses/Pages/default.aspx

Revisions

Developed 02/2019 by St. Luke's Sacred Heart Campus Family Medicine Residency Program, Allentown, PA
Revised 08/23 by the University of California School of Medicine