

APPD Forum for Fellowship Directors May 2018

Title: Building bridges: Developing a core curriculum for pediatric subspecialty fellowships

Partners: Brown, Duke, Children's Mercy, Stanford, U of Alabama, U of Utah, Yale

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Packet Contents:

1. Objectives
2. ACGME Core curriculum requirements and ABP content specifications
3. SWOT analysis template
4. Models of fellowship core curriculum from the presenting institutions (separate document)
5. Action Plan Template
6. List of Possible Outcomes
7. Contact information of presenters

Objectives

- Describe the requirements for and value of a common core curriculum for fellows.
- Identify different institutional approaches for a core curriculum.
- Determine potential barriers to initiating and maintaining a core curriculum.
- Create an action plan for implementing a core curriculum or components of the core curriculum
- Introduce outcomes to foster the study of a fellows' core curriculum program.

Accreditation Council for Graduate Medical Education (ACGME) Core curriculum requirements and American Board of Pediatrics (ABP) content specifications for Pediatric Subspecialty Programs

Topics mentioned in ACGME Pediatric Subspecialty Program Requirements:

- Economics of healthcare and health care management issues
- Public health principles and improvement methodology
- Leadership
- Fiscally sound and ethical management of a practice (eg, billing, coding, etc)
- Patient safety
- Quality improvement processes, including an understanding of health care disparities
- Well-being (identification of the symptoms of burnout, depression, substance abuse)
- Fatigue mitigation
- Bioethics
- Less specific but topics mentioned: Communication skills, Professionalism, Leadership, Cultural competency/sensitivity, Population health, Cost awareness & risk-benefit analysis, etc

Teaching: The curriculum should lead to an understanding of the principles of adult learning. Graduates should be effective in teaching both individuals and groups of learners in clinical settings, classrooms, lectures, and seminars, and also by electronic and print modalities. Training must provide skills to participate effectively in curriculum development, delivery of information, provision of feedback to learners, assessment of educational outcomes. Trainees must learn to be competent in the education of patients, families, students, fellows and other health professionals

Quality Improvement: Trainees must systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement and they must participate in identifying system errors and implementing potential systems solutions.

Leadership: Trainees must acquire leadership skills that enhance team function, the learning environment, and/or the health care delivery system/environment with the ultimate intent of improving care of patients. They must be provided education in sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation. Trainees must incorporate formative evaluation feedback into daily practice.

Health Care practice: Trainee education must include instruction in the economics of health care and current health care management issues, such as cost-effective patient care, practice management, preventive care, quality improvement, resource allocation, and clinical outcomes. They must contribute to the fiscally sound and ethical management of a practice (e.g., through billing, scheduling, coding, and record-keeping practices) and they must apply public health principles and improvement methodology to improve care for populations, communities, and systems

Professionalism: Trainees must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles

Scholarship: All trainees must participate in a core curriculum in scholarly activities, that should provide skills that lead to an in-depth understanding of: biostatistics, clinical and laboratory research methodology, study design, preparation of applications for funding and/or approval of clinical or research protocols, critical literature review, principles of evidence-based medicine, ethical principles involving clinical research, achievement of proficiency in teaching.

Pediatric Subspecialty Program Requirements

Program Director must:

- ensure fellows are mentored in development of clinical, educational, and administrative skills (II.A.4.p)
- with other FPDs and Core Program - address a departmental approach to common educational issues and concerns (e.g. core curriculum, competencies, evaluations) (II.A.4.s) (*Detail*)

ACGME: Section IV. Educational Program

Medical Knowledge:

Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. (*Outcome*)

Fellows:

must have a *working* understanding of biostatistics, clinical and laboratory research methodology, study design, preparation of applications for funding and/or approval of clinical research protocols, critical literature review, principles of evidence-based medicine, ethical principles involving clinical research, and the achievement of proficiency in teaching for all subspecialty fellows (IV.A.5.b).(1) (*Outcome*)

-teach proficiently based on knowledge of the principles of adult learning, including participating effectively in curriculum development, delivery of information, provision of feedback to learners, and assessment of educational outcomes. (*Outcome*)

ACGME: Additional Requirements around Fellows' Education

- The curriculum must advance fellows' knowledge of the basic principles of research, including how research is conducted, evaluated, explained to patients, and applied to patient care (IV.B.1.) (*Core*)
- Where appropriate, the core curriculum in scholarly activity should be a collaborative effort involving all of the pediatric subspecialty programs in the institution (IV.B.1.a) (*Detail*)

ABP Requirements for Pediatric Subspecialty Fellows

ABP Core Curriculum in Scholarly Activities

All fellows must participate in a core curriculum in scholarly activities. This curriculum should provide skills that lead to an *in-depth* understanding of:

- Biostatistics
- Clinical and laboratory research methodology
- Study design
- Preparation of applications for funding &/or approval of research protocols
- Principles of EBM & Critical literature review
- Ethical principles of clinical research
- Achievement of proficiency in teaching
 - Teaching curriculum should lead to understanding of adult learning principles & provide skills to participate effectively in curriculum development, delivery of information, provision of feedback to learners, & assessment of educational outcomes.
 - Graduates should be effective in teaching both individuals and groups of learners in clinical settings, classrooms, lectures and seminars, and also by electronic and print modalities
- Additional content specifications developed for subspecialty examinations based on the competencies related to the core curriculum in scholarly activities (see below*)
- Questions regarding the Core Scholarly Activities appear in all ABP Subboard Certification examinations. Specific content incorporated into each subspecialty's Content Outline

***ABP Core Knowledge in Scholarly Activities**

A. Principles of Biostatistics in Research

1. Types of variables (eg, continuous, ordinal, nominal)
2. Distribution of data (eg, mean, standard deviation, skewness)
3. Hypothesis testing (eg, Type I and Type II errors, p-values, statistical power)
4. Common statistical tests (eg, ANOVA, Chi-square, nonparametric tests)
5. Measurement of association and effect (eg, correlation, relative risk, odds ratio)
6. Regression (eg, linear, logistic, survival analysis)
7. Diagnostic tests (eg, sensitivity and specificity, predictive values, disease prevalence, receiver operating characteristic (ROC) curves)
8. Systematic review and meta-analysis

B. Principles of Epidemiology and Clinical Research Design

1. Study design, performance, and analysis (internal validity)
2. Generalizability (external validity)
3. Bias and confounding
4. Causation
5. Incidence and prevalence
6. Screening
7. Cost benefit, cost effectiveness, and outcomes
8. Measurement (eg, validity, reliability)

C. Ethics in Research

1. Professionalism and misconduct in research (eg, conflicts of interest, falsification)
2. Principles of research involving human subjects
3. Principles of consent and assent

D. Quality Improvement

1. Project design (eg, models, aims, key drivers, tools, Plan-Do-Study-Act (PDSA) cycle)
2. Data and measurement (eg, outcomes, balancing measures, run charts, control charts, common cause and special cause variation)

Resources:

http://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/CPRs_Section%20VI_with-Background-and-Intent_2017-01.pdf

https://www.acgme.org/Portals/0/PDFs/Specialty-specific%20Requirement%20Topics/DIO-Scholarly_Activity_Resident-Fellow.pdf

<https://www.abp.org/content/scholarly-activity>

Action Plan Template

ACTION PLAN TEMPLATE/ Core curriculum Workshop 2018

	S.M.A.R.T. Goal:	Who is responsible ? Who else is needed?	What resources are required?	<u>SWOT Highlights</u> Consider Barriers and Strategies to Overcome them	Timeline for Completion?	How will you evaluate and refine?
1	Short Term Objective 1					
2	Short Term Objective 2					
3	Short Term Objective 3					
4	Short Term Objective 4					

List of Possible Outcomes

Surveys; qualitative and quantitative (use validated tools/questions)

- immediately following sessions to assess reaction/satisfaction/knowledge/change in practice
- before and after sessions/each year: assess gain in knowledge

Test results

- In-service exams, boards

Evaluations

- competencies in relevant areas, communication, professionalism, quality improvement

Work products

- number of grants/publications (submitted and accepted/funded)
- presentations local/national (research, quality improvement, teaching)

Contact information of presenters

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EVALUATION SHEET:
Workshop on Core Curriculum Development and Implementation
APPD Spring 2018

OBJECTIVES: *At the completion of this workshop, the participant will be able to:*

- Discuss the requirements for and the value of a core curriculum
- Consider different institutional approaches to running a core curriculum
- Identify potential barriers to initiation and maintenance of a core curriculum
- Start to create an action plan for implementing a core curriculum
- Understand outcomes to foster the study and improvement of a core curriculum

Please indicate how much you agree or disagree with each of the following statements:

This workshop helped me:

Understand the requirements for having a core curriculum for our programs.

- Strongly disagree
- Disagree
- Neither disagree or agree
- Agree
- Strongly agree

Understand the value for having a core curriculum for our programs.

- Strongly disagree
- Disagree
- Neither disagree or agree
- Agree
- Strongly agree

Understand different institutional approaches to having a core curriculum for our programs.

- Strongly disagree
- Disagree
- Neither disagree or agree
- Agree
- Strongly agree

Develop an action plan for having a core curriculum for our programs at my institution.

- Strongly disagree
- Disagree
- Neither disagree or agree
- Agree
- Strongly agree

Identify outcomes to foster the study of a core curriculum for our programs at my institution.

- Strongly disagree
- Disagree
- Neither disagree or agree
- Agree
- Strongly agree

Please list 2-3 suggestions for improving this workshop

- 1.
- 2.
- 3.

Please comment on 2-3 things you learned at this workshop

- 1.
- 2.
- 3.

Please comment on 2-3 things that you found particularly useful or enjoyable about this workshop

- 1.
- 2.
- 3.