Standardized Pediatric Cardiology Evaluation Forms Allow for Simultaneous Assessment of Trainee Performance on Clinical Rotations and in Subcompetencies

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Background

• Pediatric cardiology fellowships have a variety of clinical rotations that align with recently-developed subspecialty-specific entrustable professional activities (EPAs)
• Training guidelines written in 2005 and revised in 2015 subdivide the field along similar lines as the EPAs
• No uniform method of clinical fellow evaluation exists
• Since 2014, pediatric cardiology fellowships have been required to report milestone levels on 21 subcompetencies to the ACGME, which is time consuming and requires additional faculty development
• Our objective was to develop and implement standardized clinical evaluation forms available to all pediatric cardiology programs for assessment of subcompetency achievement simultaneous with traditional clinical performance and to assess the utility of these tools

Methods

• Evaluation forms were developed during 2015 training guidelines revisions
• Six writing groups were created through the Society of Pediatric Cardiology Training Program Directors:
  • Cardiac critical care
  • Acute care and consultation
  • Outpatient care
  • Non-invasive imaging
  • Electrophysiology
  • Cardiac catheterization
Each form would correlate with a specific EPA
• Pediatric cardiology fellowship directors were surveyed after implementation

Results

• 24 faculty from 21 institutions participated
• 6 forms comprising 88 questions (range: 11-18 per form) were created
• 21 subcompetencies included; each reflected multiple times (mean 9.3; range 2-35)
• 25/57 programs responded to survey (44%)
• 16 (64%) used the forms
• 44% of programs responded that there was no existing process in their program to allow for the assessment of certain attributes

Competency | Subcompetency | # of Questions
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Patient Care | Provide transfer of care that ensures seamless transitions | 4
 | Make informed diagnostic and therapeutic decisions | 35
 | Develop and carry out treatment plans | 25
 | Provide appropriate model | 3
Medical Knowledge | Locate, appraise, and assimilate evidence | 5
Systems-Based Practice | Work effectively in various health care delivery settings | 3
 | Coordinate patient care within the health care system | 7
 | Incorporate considerations of cost awareness and risk-benefit | 11
 | Work in inter-professional teams to enhance patient safety | 12
 | Help identify system errors/ implement potential solutions | 3
Practice-based Learning and Improvement | Identify strengths, deficiencies, and limits | 8
 | Systematically analyze practice using QI methods | 3
 | Use IT to optimize learning and care delivery | 3
 | Participate in the education of patients, families, students, residents, and other professionals | 7
Professionalism | Professional conduct: high standards of ethical behavior | 8
 | Trustworthiness that makes colleagues feel secure | 7
 | Provide leadership skills that enhance team functioning | 2
 | The capacity to accept that ambiguity is part of medicine; to utilize appropriate resources in dealing with uncertainty | 9
Interpersonal Communication Skills | Communicate effectively with health professionals | 18
 | Work effectively as a member or leader of a health care team | 9
 | Act in a consultative role to other health professionals | 13

Sample Questions:
The forms asked practical questions that enabled my faculty to easily complete them.

Comments:
• "It is an improvement, plus it fulfills milestone requirements"*
• "Appreciated the forms that provided a great foundation for the evaluations to work from...overall immensely helpful"*
• "Definite net improvement*"

Conclusions

• Standardized evaluation forms allow for ease of faculty use, useful feedback to trainees, and identification of gaps in curricula
• Milestone attainment can be identified simultaneously with traditional clinical progress
• To our knowledge, this is the first time there has been a unified effort in developing standardized evaluation tools within a subspecialty
• Limitations included difficulty incorporating into RMS and incomplete dissemination

Future Directions

• Further align questions with published training guidelines
• Validate subcompetency mapping against independent assessments
• Define individual achievement levels for each question
• Assess aggregate data to eliminate redundant questions
• Consider asking some subcompetencies directly rather than in a mapped fashion

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\* Subcompetency descriptions shortened for space considerations

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