



UAEU

جامعة الإمارات العربية المتحدة
United Arab Emirates University

NATIONAL INSTITUTE FOR HEALTH SPECIALTIES

NIHS Entrustable Professional Activities (EPAs) for Specialty Education in Pediatric Cardiology

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Pediatric Cardiology

EPA 1: Assessing patients with common cardiology presentations

Key Features: This EPA focuses on the application of the clinical skills acquired in pediatrics related to clinical assessment in the new setting of cardiology fellowship.

- This EPA requires direct observation, but may be observed in any clinical setting, in a child of any age.

Assessment Plan:

Direct observation by supervisor

Assessment form collects information on:

- Portion observed: history; physical; both
- Abnormality present on examination: yes; no

Basis for formal entrustment decisions:

Collect 1 observation of achievement

- At least 1 history
- At least 1 physical exam
- At least 1 abnormality on examination

When unsupervised practice is expected to be achieved: PGY 1

Relevant Milestones:

- 1 COM 2.1 Use patient-centered interviewing skills
- 2 ME 2.2 Elicit an accurate, relevant history including pertinent antenatal, perinatal and/or postnatal information
- 3 ME 2.2 Perform a physical exam that informs the diagnosis
- 4 COM 2.3 Seek and synthesize relevant information from other sources (e.g., family, medical record)
- 5 ME 2.2 Develop a differential diagnosis
- 6 ME 2.2 Select and/or interpret appropriate investigations
- 7 ME 2.2 Focus the clinical encounter, performing it in a time-effective manner without excluding key elements
- 8 ME 2.2 Synthesize and organize clinical information for clear and succinct presentation

Pediatric Cardiology

EPA 2: Performing electrocardiograms

Key Features: This EPA focuses on the technical skills of electrocardiography.

- It does not include ECG interpretation.

Assessment Plan:

Direct observation by cardiologist or ECG technician

Use assessment form.

The documentation of the observation of this EPA must include narrative comments.

Basis for formal entrustment decisions:

Collect 1 observation of achievement

When unsupervised practice is expected to be achieved: PGY 1

Relevant Milestones:

- 1 ME 1.3 Apply knowledge of cardiac electrophysiology
- 2 ME 3.4 Apply knowledge of the technical components of diagnostic testing including equipment and protocols
- 3 ME 3.4 Set up and position the patient for the procedure
- 4 COM 1.2 Optimize the physical environment for patient comfort, dignity, privacy, and safety
- 5 ME 3.4 Apply and correctly position cardiac leads
- 6 ME 3.4 Troubleshoot issues causing artefact, including positioning, lead placement and lead adherence

Pediatric Cardiology

EPA 3: Communicating management plans for common cardiac conditions to patients and families

Key Features: This EPA focuses on the application of communication skills and strategies to convey information about a cardiac diagnosis and management plan and engage the patient and family in shared decision making.

- This EPA may be observed in any clinical setting.

Assessment Plan:

Direct observation by cardiologist, entrusted pediatric cardiology fellow

Assessment form collects information on:

- Discussion type: bad news; change in status; new diagnosis; referral for intervention

Basis for formal entrustment decisions:

Collect 3 observations of achievement.

- At least 1 discussion of a new diagnosis or change in status
- At least 1 discussion about referral for intervention
- At least 2 assessors

When unsupervised practice is expected to be achieved: PGY 1

Relevant Milestones:

- 1 COM 1.1 Develop trusting and supportive relationships with patients and families
- 2 COM 3.1 Convey information about medical course and/or management plan clearly and accurately
- 3 COM 3.1 Use appropriate language and avoid medical jargon
- 4 COM 3.1 Use strategies to verify and validate the patient's and/or family's understanding
- 5 COM 1.5 Recognize strong impacting emotions (e.g., fear, anger, anxiety, sorrow) and respond appropriately
- 6 COM 1.5 Establish boundaries as needed in emotional situations
- 7 ME 2.3 Establish goals of care in collaboration with the patient and/or family
- 8 COM 4.3 Use communication skills and strategies that help the patient and/or family make informed decisions
- 9 COM 4.3 Answer questions from the patient and/or family
- 10 COM 4.1 Communicate in a manner that is respectful, non-judgmental, and culturally aware

Pediatric Cardiology

EPA 4: Acquiring standard images and measurements for transthoracic echocardiograms

Key Features: This EPA focuses on the technical skills of transthoracic echocardiography, which includes appropriate use of the echocardiography machine and optimization of image quality.

- This includes 2D, M mode, color Doppler, pulse Doppler and continuous wave Doppler.
- This EPA includes patients with a normal heart, or those with common lesions such as VSD, AVSD, ASD, coarctation, Tetralogy of Fallot and TGA.

Assessment Plan:

Direct observation and review of images by cardiologist or echo technician

Assessment form collects information on:

- Categories: normal heart; congenital lesion
- Type of congenital lesion (write in):

Basis for formal entrustment decisions:

Collect 6 observations of achievement

- At least 2 direct observations
- At least 4 patients with congenital lesions

When unsupervised practice is expected to be achieved: PGY 1

Relevant Milestones:

- 1 ME 1.3 Apply knowledge of cardiovascular anatomy, physiology, and pathophysiology
- 2 ME 1.3 Apply knowledge of the physical principles of ultrasound, including 2D and Doppler echocardiography
- 3 ME 3.4 Adjust echocardiographic instrument settings appropriately to optimize image quality
- 4 ME 3.4 Obtain standard echocardiographic parasternal, apical, suprasternal, and subcostal views
- 5 ME 3.4 Monitor patient comfort and safety, and adjust the procedure as needed
- 6 COM 5.1 Record diagnostic images of significant findings

Pediatric Cardiology

EPA 5: Interpreting transthoracic echocardiograms performed on children with normal hearts or with basic functional and simple structural lesions

Key Features: This EPA focuses on interpreting findings and generating a diagnostic report.

- This EPA includes patients with a normal heart, or those with common lesions such as VSD, AVSD, ASD, coarctation, Tetralogy of Fallot or TGA.

Assessment Plan:

Review of images, report and/or case discussion with cardiologist or echo technician

Assessment form collects information on:

- Case mix: normal heart; VSD; AVSD; ASD; coarctation; Tetralogy of Fallot; TGA; other congenital lesion (write in)

Basis for formal entrustment decisions:

Collect 6 observations of achievement

- At least 4 patients with a congenital lesion

When unsupervised practice is expected to be achieved: PGY 1

Relevant Milestones:

- 1 ME 1.3 Apply knowledge of cardiovascular anatomy, physiology, and pathophysiology
- 2 ME 2.2 Recognize clinically significant findings in a transthoracic echocardiogram
- 3 ME 3.4 Assess the quality and validity of the study, and any impact on the diagnostic interpretation
- 4 ME 3.4 Summarize findings of clinical relevance and suggestions for further testing and/or management as appropriate
- 5 COM 5.1 Provide a clear preliminary summary of the most significant findings in a timely fashion
- 6 COM 5.1 Communicate critical results urgently, as needed

Pediatric Cardiology

EPA 6: Providing interpretation of electrocardiograms

Key Features: This EPA focuses on the application of a standard approach to reading and interpreting ECGs.

- This includes identifying normal tracings, structural heart disease, and common arrhythmias.
- The observation of this EPA is based on the supervisor and fellow reviewing a batch of ECGs together, talking through the approach to interpretation and the diagnosis.

Assessment Plan:

Review of a batch of ECG cases with cardiologist, entrusted pediatric cardiology fellow

Assessment form collects information on:

- Number reviewed (write in):
- Case mix (select all that apply): normal tracing; structural heart disease; common arrhythmia; other (write in)

Basis for formal entrustment decisions:

Collect 2 observations of achievement

- At least 10 ECGs in each batch
- At least some ECGs in each batch that are not normal tracings

When unsupervised practice is expected to be achieved: PGY 1

Relevant Milestones:

- 1 ME 1.3 Apply knowledge of cardiac electrophysiology
- 2 ME 3.4 Assess the quality and validity of the study, and any impact on the diagnostic interpretation
- 3 ME 3.4 Apply a systematic approach to ECG interpretation, identifying all significant findings
- 4 ME 2.2 Identify the clinical significance of diagnostic findings
- 5 COM 5.1 Provide clear, concise, and accurate reports of diagnostic testing in a timely fashion
- 6 COM 5.1 Communicate critical results urgently, as needed

Pediatric Cardiology

EPA 7: Obtaining informed consent for cardiac procedures

Key Features: This EPA focuses on the application of knowledge regarding the risk, benefits, indications, and contraindications of cardiac interventions as well as the communication skills and strategies to help the patient and/or family make an informed decision.

Assessment Plan:

Direct observation by cardiologist, entrusted pediatric cardiology fellow

Assessment form collects information on:

- Procedure: cardiac catheterization; balloon septostomy; pericardiocentesis; TEE; device implantation; cardioversion; other (write in)

Basis for formal entrustment decisions:

Collect 2 observations of achievement

- At least 1 catheterization
- At least 1 other procedure

When unsupervised practice is expected to be achieved: PGY 1

Relevant Milestones:

- 1 ME 1.3 Apply knowledge of the indications, techniques and complications of cardiac tests and procedures
- 2 P 3.1 Adhere to legal obligations, as well as local policies and procedures, relevant to consent and assent
- 3 ME 3.2 Explain the risks and benefits of and the rationale and alternatives for a proposed test or procedure
- 4 COM 3.1 Use appropriate language and avoid medical jargon
- 5 COM 3.1 Use strategies to verify and validate the patient's and/or family's understanding
- 6 COM 4.3 Answer questions from the patient and/or family
- 7 COM 4.3 Use communication skills and strategies that help the patient and/or family make informed decisions
- 8 ME 3.2 Use shared decision-making in the consent process
- 9 COM 5.1 Complete required documentation of the consent discussion

Pediatric Cardiology

EPA 8: Detecting relevant findings through physical examination and interpreting their clinical significance

Key Features: The focus of this EPA is the integration of cardiovascular anatomy, physiology, and pathophysiology with physical examination skills to identify and recognize the significance of clinical findings and formulate a differential diagnosis.

- The observation of this EPA must occur in patients with abnormal findings on clinical exam.
- This EPA requires the supervisor to directly observe the performance of the physical examination of a patient not known to the fellow.

Assessment Plan:

Direct observation by cardiologist

Assessment form collects information on:

- Condition (write in):

Basis for formal entrustment decisions:

Collect 2 observations of achievement

- At least 2 different assessors

When unsupervised practice is expected to be achieved: PGY 1

Relevant Milestones:

- 1 COM 1.2 Optimize the physical environment for patient comfort, dignity, privacy, and safety
- 2 ME 1.3 Apply knowledge of cardiovascular anatomy, physiology, and pathophysiology
- 3 ME 2.2 Assess general appearance, color, activity, and hydration
- 4 ME 2.2 Assess extremities, including clubbing and peripheral pulses in upper and lower limbs
- 5 ME 2.2 Assess blood pressure in upper and lower limbs
- 6 ME 2.2 Inspect and palpate the precordium
- 7 ME 2.2 Evaluate heart sounds
- 8 ME 2.2 Evaluate systolic and/or diastolic murmurs, including maneuvers for dynamic auscultation as appropriate (e.g., positional change, Valsalva strain)
- 9 ME 2.2 Perform a relevant focused exam of the chest, front and back
- 10 ME 2.2 Perform a relevant focused exam of the abdomen with attention to the liver
- 11 ME 2.2 Interpret the findings of the physical exam in the context of the patient's presentation
- 12 ME 2.2 Develop a differential diagnosis

Pediatric Cardiology

EPA 9: Performing transthoracic echocardiograms

Key Features: This EPA focuses on acquiring images for high-quality diagnostic transthoracic echocardiograms.

- This EPA includes patients with all forms of congenital and acquired heart disease.

Assessment Plan:

Direct observation and/or review of images by a cardiologist or echo technician

Assessment form collects information on:

- Case mix: assessment of function; congenital heart malformation; acquired heart disease; other (write in)
- Complexity: low; medium; high
- New diagnosis: yes; no
- Postoperative: yes; no

Basis for formal entrustment decisions:

Collect 10 observations of achievement

- At least 2 assessments of abnormal function
- No more than 2 low complexity
- At least 1 new diagnosis
- At least 2 postoperative congenital heart malformations

When unsupervised practice is expected to be achieved: PGY 1

Relevant Milestones:

- 1 ME 3.4 Adjust echocardiographic instrument settings appropriately to optimize image quality
- 2 ME 3.4 Obtain echocardiographic parasternal, apical, suprasternal, and subcostal views
- 3 ME 3.4 Monitor patient comfort and safety, and adjust the procedure as needed
- 4 ME 1.3 Apply knowledge of cardiovascular anatomy, physiology, and pathophysiology
- 5 ME 2.2 Recognize clinically significant findings
- 6 COM 5.1 Record high quality images of significant findings

Pediatric Cardiology

EPA 10: Providing ongoing management of stable patients with a known cardiac condition in the outpatient setting

Key Features: This EPA focuses on the reassessment of clinical status, response to management, and adjustment of management as necessary, and both primary and secondary prevention of complications.

- This EPA includes patients at any point after their initial diagnosis with a broad range of structural lesions as well as those with cardiomyopathy, arrhythmia and acquired cardiac disease; it does not include patients with complex arrhythmias.
- This EPA includes identifying patients that need a change in treatment plan as well as patients that can be discharged to the care of a primary care provider (GP or pediatrician).

Assessment Plan:

Direct and/or indirect observation by a cardiologist or entrusted pediatric cardiology fellow

Assessment form collects information on:

- Case mix: simple congenital cardiac disease; acquired cardiac disease; simple arrhythmia
- Operation status: preoperative; postoperative
- Patient age: neonate; infant; child; adolescent

Basis for formal entrustment decisions:

Collect 4 observations of achievement

- At least 2 direct observations
- At least 2 different conditions
- At least 2 different age groups

When unsupervised practice is expected to be achieved: PGY 2

Relevant Milestones:

- 1 ME 1.4 Perform a clinical assessment that addresses all relevant issues
- 2 ME 2.2 Interpret the results of investigations performed to monitor the condition and/or treatment
- 3 ME 2.2 Synthesize patient information to determine clinical status and/or response to treatment
- 4 ME 2.3 Integrate the patient's and family's perspective and context into the care plan
- 5 ME 2.4 Develop a plan for management, which may include modification of current treatment
- 6 ME 4.1 Determine the frequency and timing of future investigations and visits
- 7 COL 3.1 Determine when care should be transferred back to the primary health care professional

- 8 COM 4.3 Use communication skills and strategies that help the patient and/or family make informed decisions
- 9 HA 1.3 Incorporate prevention, health promotion and health surveillance into patient interactions
- 10 COM 5.1 Document the clinical encounter to adequately convey clinical reasoning and the rationale for decisions and/or recommendations

Pediatric Cardiology

EPA 11: Formulating and implementing discharge plans for patients with common conditions

Key Features: This EPA focuses on providing a safe and informed discharge for patients with common cardiology conditions.

- This includes developing, documenting, and executing a discharge plan.

Assessment Plan:

Review of case or observation of verbal communication with primary care provider and review of discharge summary by cardiologist or entrusted pediatric cardiology fellow

Assessment form collects information on:

- Post op: yes; no

Basis for formal entrustment decisions:

Collect 3 observations of achievement

- At least 1 post op from current admission

When unsupervised practice is expected to be achieved: PGY 2

Relevant Milestones:

- 1 ME 2.2 Assess the patient's readiness for discharge from the acute care setting
- 2 ME 2.2 Synthesize patient information to anticipate complications and challenges after discharge
- 3 ME 2.3 Integrate the patient's and family's perspective and context into the care plan
- 4 ME 5.2 Reconcile current and prior medication lists to enhance patient safety
- 5 ME 4.1 Coordinate follow-up after discharge including an appropriate interval and investigations
- 6 COL 3.2 Determine an appropriate community health care provider(s) has been identified for follow-up
- 7 COM 5.1 Document a hospitalization to adequately convey clinical course and the rationale for decisions
- 8 COL 3.2 Recognize and respond to situations that need direct communication with the patient's primary health care professional

Pediatric Cardiology

EPA 12: Providing in-hospital cardiology consultation services

Key Features: This EPA focuses on the role of a consultant advising the primary (treating) physician regarding the management of patients with cardiac conditions in simple non-life-threatening cases.

- An important aspect of this EPA is the effective communication and collaboration required when working in the consultant role.
- The observation of this EPA must include providing consultation and documenting a consultation note.
- The documentation of the observation of this EPA must include narrative comments.

Assessment Plan:

Direct observation by staff cardiologist or primary physician and review of consultation notes by cardiologist.

Assessment form collects information on:

- Observer: cardiologist; primary physician

Basis for formal entrustment decisions:

Collect 2 observations of achievement

- At least 1 from cardiologist
- At least 1 from primary physician

When unsupervised practice is expected to be achieved: PGY2

Relevant Milestones:

- 1 ME 1.4 Adapt the clinical assessment to the expectations and boundaries of the consultant role
- 2 S 3.4 Integrate best evidence and clinical expertise into decision-making
- 3 ME 2.4 Develop and implement management plans that consider all the patient's health problems and needs
- 4 COL 3.2 Provide anticipatory guidance for results of outstanding investigations and/or next steps for management
- 5 COL 1.3 Communicate effectively with the consulting service
- 6 COL 2.2 Work effectively with other health care professionals to develop plans for clinical care when there are differences in opinion and/or recommendations
- 7 P 1.1 Exhibit appropriate professional behaviors
- 8 COM 5.1 Document all relevant findings and investigations
- 9 COM 5.1 Convey clinical reasoning and the rationale for decisions
- 10 COM 5.1 Provide a clear plan for ongoing management
- 11 COL 1.2 Identify the roles of the referring physician and the cardiology consultant clearly in the ongoing management plan
- 12 COL 3.2 Provide anticipatory guidance for results of outstanding investigations and/or

next steps for management

13 COM 5.1 Complete clinical documentation in a timely manner

Pediatric Cardiology

EPA 13: Providing cardiology expertise in medical-surgical case conferences

Key Features: This EPA focuses on shared decision making with other health care professionals, including surgeons and critical care physicians.

- This EPA includes summarizing the case, preparing and presenting relevant imaging, contributing medical expertise to the team discussion, advocating for the patient and demonstrating professional behavior.

Assessment Plan:

Direct observation by a member of the medical-surgical team

Assessment form collects information on:

- Observer: cardiologist; cardiac surgeon; other physician; other health care professional
- Fellow role in meeting (select all that apply): present clinical data; present diagnostic test data; present diagnostic test images; present recommendation; document conference conclusion; other (write in)

Basis for formal entrustment decisions:

Collect 4 observations of achievement

- At least 2 different cardiologists
- At least 1 meeting where fellow presented data (clinical and/or diagnostic)
- At least 1 meeting where fellow presented images
- When unsupervised practice is expected to be achieved: PGY2

Relevant Milestones:

- 1 ME 1.3 Apply knowledge of cardiovascular anatomy, physiology, and pathophysiology
- 2 COL 1.3 Communicate effectively with physicians and other health care professionals
- 3 ME 2.2 Synthesize clinical information to formulate a summary of the case
- 4 ME 3.4 Summarize findings of clinical relevance
- 5 COL 1.3 Contribute effectively to multidisciplinary rounds, sharing cardiology expertise
- 6 COL 2.1 Actively listen to and engage in interactions with collaborators
- 7 S 3.4 Integrate best evidence and clinical expertise into decision-making
- 8 ME 3.3 Advocate for a patient's procedure or therapy based on urgency and available resources
- 9 P 1.1 Exhibit appropriate professional behaviors

Pediatric Cardiology

EPA 14: Interpreting and reporting transthoracic echocardiograms

Key Features: This EPA focuses on interpreting findings of echocardiograms, including those performed by others, and generating a comprehensive diagnostic report.

- This EPA includes patients with all forms of congenital and acquired heart disease.

Assessment Plan:

Review of images and report by cardiologist

Assessment form collects information on:

- Case mix: assessment of function; congenital heart malformation; acquired heart disease; other diagnosis
- Complexity: low; medium; high
- New diagnosis: yes; no
- Postoperative: yes; no
- Study performed by trainee: yes; no

Basis for formal entrustment decisions:

Collect 10 observations of achievement

- At least 2 assessments of abnormal function
- No more than 2 low complexity cases
- At least 1 new diagnosis
- At least 2 postoperative congenital heart malformations

When unsupervised practice is expected to be achieved: PGY 2

Relevant Milestones:

- 1 ME 3.4 Assess the quality and validity of the study, and any impact on the diagnostic interpretation
- 2 ME 1.3 Apply knowledge of cardiovascular anatomy, physiology, and pathophysiology
- 3 ME 2.2 Recognize clinically significant findings
- 4 ME 3.4 Provide accurate interpretation of the images
- 5 ME 3.4 Summarize findings of clinical relevance
- 6 ME 3.4 Provide suggestions for additional echocardiographic images or further testing as appropriate

Pediatric Cardiology

EPA 15: Interpreting transesophageal echocardiograms

Key Features: This EPA focuses on the review of images, interpretation of those findings, and provision of a preliminary report.

- It does not include independent performance of a transesophageal echocardiogram.

Assessment Plan:

Case review with cardiologist based on live images or teaching file

Assessment form collects information on:

- Intraoperative: yes; no
- Diagnosis (write in):

Basis for formal entrustment decisions:

Collect 5 observations of achievement

- At least 3 intraoperative studies

When unsupervised practice is expected to be achieved: PGY 2

Relevant Milestones:

- 1 ME 3.4 Assess the quality and validity of the study, and any impact on the diagnostic interpretation
- 2 ME 1.3 Apply knowledge of cardiovascular anatomy, physiology, and pathophysiology
- 3 ME 2.2 Recognize clinically significant findings
- 4 ME 3.4 Provide interpretation of transesophageal echocardiography
- 5 ME 3.4 Provide suggestions for further testing and/or management as appropriate
- 6 COM 5.1 Communicate critical results urgently, as needed

Pediatric Cardiology

EPA 16: Diagnosing significant anomalies in a fetal echocardiogram

Key Features: This EPA focuses on the cardiologist's review of images obtained by another health care professional and the identification of major anomalies.

- It may include referral for further consultation and/or additional investigations.
- It does not include performance of a fetal echocardiogram, nor providing a full diagnostic report.

Assessment Plan:

Case review with cardiologist based on live images or teaching file

Assessment form collects information on:

- Diagnosis (write in):
- Decision regarding next steps: advanced imaging; referral; other decision

Basis for formal entrustment decisions:

Collect 2 observations of achievement

When unsupervised practice is expected to be achieved: PGY 2

Relevant Milestones:

- 1 ME 3.4 Assess the quality and validity of the study, and any impact on the diagnostic interpretation
- 2 ME 1.3 Apply knowledge of cardiovascular anatomy, physiology, and pathophysiology
- 3 ME 2.2 Recognize clinically significant findings
- 4 ME 3.4 Provide suggestions for further consultation and/or investigation, as appropriate
- 5 COL 1.2 Convey diagnostic uncertainty and limitations of the study, as relevant
- 6 COM 5.1 Communicate critical results urgently, as needed

Pediatric Cardiology

EPA 17: Interpreting stress tests

Key Features: This EPA includes providing an interpretation of the investigation, identifying critical results, and communicating with the responsible physician/clinical team.

Assessment Plan:

Review of data and report by cardiologist

Assessment form collects information on:

- Case mix: arrhythmia; possible ischemia; structural heart disease; other (write in)

Basis for formal entrustment decisions:

Collect 5 observations of achievement

- At least 1 of each indication for testing
- At least 2 assessors

When unsupervised practice is expected to be achieved: PGY 2

Relevant Milestones:

- 1 ME 1.3 Apply knowledge of cardiovascular anatomy, physiology, and pathophysiology
- 2 ME 3.4 Assess the quality and validity of the study, and any impact on the diagnostic interpretation
- 3 ME 3.4 Summarize findings of clinical relevance
- 4 ME 3.4 Provide suggestions for further testing and/or management as appropriate
- 5 COM 5.1 Provide clear, concise, and accurate reports of diagnostic testing in a timely fashion
- 6 COM 5.1 Communicate critical results urgently, as needed

Pediatric Cardiology

EPA 18: Diagnosing structural anomalies in a cardiac CT or MRI examination

Key Features: This EPA focuses on the review of images and the identification of major anomalies.

- It does not include a comprehensive interpretation of all findings and does not include providing a full diagnostic report.

Assessment Plan:

Case review with cardiologist or radiologist based on images or teaching file

Assessment form collects information on:

- Modality: CT; MRI
- Diagnosis (write in):

Basis for formal entrustment decisions:

Collect 2 observations of achievement

- At least 1 of each modality

When unsupervised practice is expected to be achieved: PGY 2

Relevant Milestones:

- 1 ME 3.4 Assess the quality and validity of the study, and any impact on the diagnostic interpretation
- 2 ME 1.3 Apply knowledge of cardiovascular anatomy, physiology, and pathophysiology
- 3 ME 3.4 Identify key findings of cross-sectional imaging
- 4 ME 3.4 Interpret cross-sectional imaging in the context of the clinical presentation
- 5 ME 3.4 Provide suggestions for further testing and/or management as appropriate

Pediatric Cardiology

EPA 19: Performing cardioversion

Key Features: This EPA focuses on the technical skills of cardioversion.

- This EPA may be observed in a simulation setting.

Assessment Plan:

Direct observation by cardiologist or pediatric cardiology entrusted fellow

Assessment form collects information on:

- Setting: clinical; simulation

Basis for formal entrustment decisions:

Collect 1 observation of achievement

When unsupervised practice is expected to be achieved: PGY 2

Relevant Milestones:

- 1 ME 3.2 Obtain and document informed consent, explaining the risks and rationale for the procedure
- 2 P 1.1 Work within personal limitations, asking for assistance as needed
- 3 ME 2.2 Assess a patient's suitability to proceed with electrical cardioversion
- 4 ME 3.4 Select and provide sedation, or ensure it is provided, as appropriate
- 5 ME 3.4 Perform electrical cardioversion
- 6 COL 1.2 Communicate effectively with nurses and/or assistants during the procedure
- 7 COM 5.1 Document the encounter to convey the procedure and outcome
- 8 ME 3.4 Establish and implement a plan for post-procedure care
- 9 ME 3.4 Recognize and manage immediate complications

Pediatric Cardiology

EPA 20: Recognizing, assessing, and initiating management of urgent or life-threatening cardiac presentations

Key Features: This EPA focuses on the recognition, assessment, stabilization, and initial management of pediatric patients presenting with urgent or life-threatening cardiac conditions.

- It includes patients with suspected cardiac emergencies such as cyanosis, arrhythmia, low cardiac output, structural cardiac lesions, abnormal myocardial function, or other presentations requiring urgent cardiac assessment.
- An important feature of this EPA is the timely recognition of the need for additional assistance, escalation of care, transfer to the appropriate health care setting, and application of local institutional protocols and resources.
- The fellow is expected to initiate appropriate investigations and early management while seeking timely support from cardiology, critical care, neonatal intensive care, emergency medicine, or other relevant teams.
- This EPA may be observed in a clinical or simulation setting.

Assessment Plan:

Direct observation and/or case review by a cardiologist, critical care physician, neonatal intensive care physician, emergency physician, rapid response physician, entrusted fellow, or other approved supervisor. Input from other health professionals may be included.

The assessment form collects information on:

- Setting: NICU; PICU; ER; inpatient; outpatient/clinic; simulation
- Patient age: neonate; infant; child; adolescent
- Case mix: cyanosis; arrhythmia; low cardiac output; suspected structural cardiac lesion; suspected abnormal myocardial function; other urgent/life-threatening cardiac presentation; other (write in)
- Echo performed: yes; no
- Correct suspected echo diagnosis: yes; no; not applicable
- Assistance/escalation required: yes; no
- Transfer decision required: yes; no

Basis for Formal Entrustment Decisions:

Collect 4 observations of achievement.

- At least 2 different patient age groups
- At least 1 case involving cyanosis, arrhythmia, or low cardiac output
- At least 1 observation must include echo performed with correct suspected diagnosis, where clinically applicable
- At least 1 observation must demonstrate timely recognition of the need for assistance, escalation, or transfer
- No more than 1 simulation

- At least 2 assessors

When unsupervised practice is expected to be achieved: PGY 3

Relevant Milestones:

- 1 ME 2.1 Recognize instability and medical acuity in a clinical presentation
- 2 ME 2.1 Initiate or ensure initial stabilization of clinical status
- 3 L 2.1 Apply knowledge of local protocols and resources
- 4 ME 2.2 Perform a focused history and physical examination relevant to the patient's presentation
- 5 ME 2.2 Recognize significant findings on clinical and/or echocardiographic examination
- 6 ME 2.2 Synthesize clinical information to formulate a summary of the case
- 7 ME 2.2 Elicit history and perform a relevant physical exam, in a time- effective manner
- 8 ME 2.2 Select and/or interpret appropriate investigations
- 9 ME 2.4 Develop and implement a management plan
- 10 ME 2.4 Determine the setting of care appropriate for the patient's current health needs
- 11 ME 3.4 Obtain echocardiographic views to rule out critical disease
- 12 ME 3.4 Perform the sequence of cardiac resuscitation as per established protocols
- 13 ME 4.1 Determine the appropriate disposition and/or setting for ongoing care
- 14 COL 1.2 Integrate the skills of other health care professionals in the resuscitation, as relevant
- 15 P 1.1 Work within personal limitations, asking for assistance as needed
- 16 COM 3.1 Convey information to the family clearly and compassionately

Pediatric Cardiology

EPA 21: Providing initial assessment and management for hemodynamically stable patients with a broad range of cardiac conditions

Key Features: This EPA focuses on clinical assessment, diagnostic approach, and initial management of hemodynamically stable pediatric patients presenting with suspected or confirmed cardiac conditions.

- It includes patients with undifferentiated presentations such as murmurs, dyspnea, cyanosis, failure to thrive, exercise intolerance, chest pain, dizziness, syncope, tachycardia or palpitations, as well as patients with a broad range of congenital, acquired, secondary, or rhythm-related cardiac conditions.
- This EPA includes synthesizing clinical information, selecting and interpreting diagnostic investigations, formulating an appropriate management plan, and determining disposition, including follow-up, admission, transfer, or referral as appropriate.
- This EPA applies to both patients already known to the cardiology service with new presentations and patients not previously known to the service.
- It also includes consultation with other health care professionals as needed and communication of the assessment and management plan to the patient and family.
- This EPA may be observed in the inpatient, outpatient, emergency room, neonatal intensive care unit, or pediatric intensive care unit setting.

Assessment Plan:

Direct observation and/or case review by a cardiologist or entrusted cardiology trainee.

The assessment form collects information on:

- Setting: inpatient ward; outpatient clinic; NICU; PICU; emergency department
- Consultation type: new patient; known patient
- Patient age: neonate; infant; child; adolescent
- Case mix (select all that apply): congenital disease; acquired disease; secondary manifestation; arrhythmia; heart failure; murmur; dyspnea; cyanosis; failure to thrive; exercise intolerance; chest pain; dizziness; syncope; tachycardia/palpitations; post-operative concern; other (write in)
- Complexity: simple; complex
- Disposition decision: follow-up; discharge; admission; transfer; referral; other (write in)

Basis for Formal Entrustment Decisions:

Collect 8 observations of achievement.

- At least 3 direct observations
- At least 2 different settings
- At least 2 different presenting symptoms
- At least 1 case from each category: congenital; acquired; secondary; arrhythmia
- At least 5 complex presentations
- At least 1 patient from each age group: neonate; infant; child; adolescent

- At least 1 new patient and 1 patient already known to the cardiology service
- At least 3 assessors

When unsupervised practice is expected to be achieved: PGY 3

Relevant Milestones:

- 1 ME 1.4 Perform a clinical assessment that addresses all relevant issues
- 2 ME 2.2 Elicit an accurate, relevant history
- 3 ME 2.2 Perform a physical examination relevant to the presentation
- 4 ME 2.2 Interpret the results of investigations in the context of the patient's presentation
- 5 ME 2.2 Identify the clinical significance of diagnostic findings
- 6 ME 2.2 Develop a differential diagnosis
- 7 ME 2.2 Synthesize clinical information to formulate a summary of the case
- 8 ME 2.4 Develop and implement management plans that consider all the patient's health problems and needs
- 9 ME 4.1 Determine the need and timing of referral to another health care professional
- 10 ME 4.1 Establish plans for ongoing care, follow-up investigations, response to treatment and/or monitoring for disease progression
- 11 COM 2.1 Conduct the interview in a patient-centered manner
- 12 COM 2.3 Seek and synthesize relevant information from other sources (e.g., family, medical record)
- 13 COM 4.3 Use communication strategies and skills that help the patient and/or family understand the diagnosis and plan
- 14 COM 5.1 Document the clinical encounter to adequately convey clinical reasoning and the rationale for decisions and/or recommendations
- 15 S 3.4 Integrate best evidence and clinical expertise into decision-making
- 16 COL 1.3 Integrate the patient's perspective and context into the care plan
- 17 COL 1.3 Work effectively with other health care professionals to plan and provide integrated care

Pediatric Cardiology

EPA 22: Providing ongoing assessment and management for patients with a broad range of cardiac conditions in the outpatient setting

Key Features: This EPA focuses on the reassessment of clinical status, response to management, and adjustment of management as necessary, as well as primary and secondary prevention of complications, evidence informed decision making and judicious use of health care resources in the outpatient setting.

- This EPA includes patients whose condition is chronic and/or complex and may therefore require consideration of the patient's growth and development, treatment goals, interactions between different diseases and treatments and, often, coordination with other physicians and health care professionals.
- An important aspect of this EPA is the decision-making regarding future plan of care, which may include ongoing follow-up, discharge back to referring physician, referral to another physician, transfer to an adult congenital service, admission, or palliation.

Assessment Plan:

Case review by cardiologist

Assessment form collects information on:

- Case mix: congenital; acquired; secondary; arrhythmia
- Myocardial dysfunction: yes; no
- Timing: preoperative; postoperative; not applicable
- Complexity: simple; complex
- Patient age: neonate; infant; child; adolescent; adult

Basis for formal entrustment decisions:

Collect 8 observations of achievement

- A range of presentations
- At least 1 patient with myocardial dysfunction
- At least 1 preoperative patient
- At least 1 postoperative patient
- At least 5 complex cases
- At least 1 of each age group
- At least 1 adult congenital

When unsupervised practice is expected to be achieved: PGY 3

Relevant Milestones:

- 1 ME 1.4 Perform a clinical assessment that addresses all relevant issues
- 2 ME 2.2 Assess the impact of the medical condition on the patient's growth, development, and ability to pursue life goals
- 3 ME 2.2 Interpret the results of investigations performed to monitor the condition and/or treatment

- 4 ME 2.2 Synthesize patient information to determine clinical status and/or response to treatment
- 5 ME 2.3 Integrate the patient's and family's perspective and context into the care plan
- 6 ME 2.4 Develop a plan for management, which may include modification of current treatment
- 7 L 2.1 Consider costs and resource availability when selecting diagnostic or treatment options
- 8 ME 4.1 Determine the need and timing of referral to another health care professional
- 9 ME 4.1 Determine the frequency and timing of future investigations and visits
- 10 COL 3.1 Determine when care should be transferred back to the primary health care professional
- 11 S 3.4 Integrate best evidence and clinical expertise into decision-making
- 12 COM 4.3 Use communication skills and strategies that help the patient and/or family make informed decisions
- 13 HA 1.3 Incorporate prevention, health promotion and health surveillance into patient interactions
- 14 COM 5.1 Document the clinical encounter to adequately convey clinical reasoning and the rationale for decisions and/or recommendations

Pediatric Cardiology

EPA 23: Providing ongoing assessment and management for patients with a broad range of cardiac conditions in the inpatient setting

Key Features: This EPA focuses on clinical reassessment and integration of the results of investigations and the patient's clinical response to therapy to monitor and refine ongoing treatment plans.

- This EPA includes patients whose condition is chronic and/or complex and therefore requires consideration of the patient's growth and development, treatment goals, interactions between different diseases and treatments and, often, coordination with other physicians and health care professionals.
- This EPA may be observed in the inpatient ward, critical care unit, or in NICU.

Assessment Plan:

Case review by cardiologist or entrusted pediatric cardiology fellow

Assessment form collects information on:

- Case mix: congenital; acquired; secondary; arrhythmia
- Myocardial dysfunction: yes; no
- Postoperative: yes; no
- Complexity: simple; complex
- Patient age: neonate; infant; child; adolescent

Basis for formal entrustment decisions:

Collect 6 observations of achievement

- At least 2 different presentations
- At least 1 patient with myocardial dysfunction
- At least 1 postoperative patient
- At least 5 complex cases
- At least 1 of each age group

When unsupervised practice is expected to be achieved: PGY 3

Relevant Milestones:

- 1 ME 1.4 Perform a clinical assessment that addresses all relevant issues
- 2 ME 2.2 Interpret the results of investigations performed to monitor the condition and/or treatment
- 3 ME 2.2 Synthesize patient information to determine clinical status and/or response to treatment
- 4 ME 2.3 Integrate the patient's and family's perspective and context into the care plan
- 5 ME 2.4 Adjust management plans based on clinical status and/or response to treatment
- 6 ME 4.1 Determine the need and timing of referral to another physician
- 7 S 3.4 Integrate best evidence and clinical expertise into decision-making

- 8 L 2.1 Consider costs and resource availability when selecting diagnostic or treatment options
- 9 ME 4.1 Coordinate investigation, treatment, and follow-up when multiple physicians and health care professionals are involved
- 10 COM 4.3 Use communication skills and strategies that help the patient and/or family make informed decisions
- 11 COM 5.1 Document the clinical encounter to adequately convey clinical reasoning and the rationale for decisions and/or recommendations
- 12 COL 1.3 Work effectively with other physicians and health care professionals to plan and provide integrated care

Pediatric Cardiology

EPA 24: Managing unstable and critically ill patients

Key Features: This EPA focuses on assessment and medical decision-making regarding management of critically ill patients, and the consideration of mechanical support.

Assessment Plan:

Direct observation or case review by staff physician or entrusted trainee (cardiology, critical care, surgeon), which may include input from other health professionals

Assessment form collects information on:

- Patient age (write in):
- Case complexity: low; medium; high
- Setting: clinical; simulation

Basis for formal entrustment decisions:

Collect 3 observations of achievement

- At least 1 infant
- At least 2 cases with medium or high complexity
- At least 2 assessors
- At least 1 in clinical setting

When unsupervised practice is expected to be achieved: PGY 3

Relevant Milestones:

- 1 ME 2.2 Focus the clinical encounter, performing it in a time-effective manner without excluding key elements
- 2 ME 2.2 Integrate and synthesize clinical information, hemodynamics, and results of investigation to assess clinical status
- 3 ME 2.4 Manage hemodynamic support and monitoring, including inotropes, anti-arrhythmics, and/or mechanical support
- 4 S 3.4 Integrate best evidence and clinical expertise into decision-making
- 5 ME 2.4 Develop and implement management plans for critically ill patients, including providing or arranging for definitive care and mechanical support
- 6 ME 4.1 Determine the need and timing of referral to another physician
- 7 ME 3.3 Balance risk, effectiveness, and priority of intervention in the presence of multiple co-morbidities and/or other features of case complexity
- 8 COM 3.1 Convey information to the family about diagnosis and prognosis clearly and compassionately
- 9 COL 1.2 Work effectively with the interprofessional team

Pediatric Cardiology

EPA 25 Assessing and managing patients with refractory or end stage disease

Key Features: The focus of this EPA is recognition of the severity of the condition, communication of that prognosis, and referral for palliation or advanced care, which may include consideration for mechanical cardiac support.

- This EPA may be observed in any clinical setting.

Assessment Plan:

Direct observation by staff cardiologist

Use assessment form

The documentation of the observation of this EPA must include narrative comments.

Basis for formal entrustment decisions:

Collect 1 observation of achievement

When unsupervised practice is expected to be achieved: PGY 3

Relevant Milestones:

- 1 ME 2.1 Identify patients for whom the burden of disease modifying therapy or investigations is greater than the clinical benefit
- 2 ME 2.3 Recognize and respond to signs that it is time to transition care away from a disease modifying approach
- 3 COM 3.1 Convey information about diagnosis and prognosis clearly and compassionately
- 4 COM 3.1 Use appropriate language and avoid medical jargon
- 5 COM 3.1 Use strategies to verify and validate the patient's and/or family's understanding
- 6 COM 2.1 Gather information about the patient's beliefs, values, preferences, context and expectations with regards to their care
- 7 ME 2.3 Address the impact of the medical condition on the patients' ability to pursue life goals and purposes
- 8 ME 2.3 Establish goals of care in collaboration with the patient and/or family
- 9 COM 1.5 Recognize when strong emotions (e.g., fear, anger, anxiety, sorrow) are impacting an interaction and respond appropriately
- 10 ME 3.1 Select investigations and therapies appropriate to the patient's goals of care
- 11 ME 2.4 Develop management plans that align with the goals of care
- 12 COM 5.1 Document the clinical encounter to accurately reflect the discussion and decisions

Pediatric Cardiology

EPA 26: Supporting adolescents with cardiac disease in the transition from the pediatric to adult care setting

Key Features: This EPA focuses on the unique aspects of developmental readiness and risks that occur as patients progress to autonomy for their health care needs.

- It also includes determining the appropriate disposition of the patient based on clinical needs and promoting appropriate primary care follow-up.
- The nature of the cardiac condition is not relevant for this EPA.

Assessment Plan:

Direct observation and/ or case review by cardiologist

Use assessment form

The documentation of the observation of this EPA must include narrative comments.

Basis for formal entrustment decisions:

Collect 1 observation of achievement

When unsupervised practice is expected to be achieved: PGY 2

Relevant Milestones:

- 1 ME 2.2 Assess the patient's health literacy and developmental readiness for the demands of the adult care setting
- 2 ME 2.2 Assess psychosocial issues that may affect health and/or access to services
- 3 ME 2.2 Assess adherence to treatment and monitoring plans
- 4 HA 1.2 Work with the patient to increase their understanding of their illness and health care needs
- 5 HA 1.2 Work with the patient to increase their autonomy with regards to health care
- 6 COM 4.3 Use communication skills and strategies that help the patient and/or family make informed decisions
- 7 ME 2.2 Assess the need, timing, and risk of transition from pediatric to adult care
- 8 ME 2.4 Anticipate, prevent, and manage changes in health status at the time of transition
- 9 ME 4.1 Establish plans for ongoing care that include monitoring health status and managing adherence
- 10 COL 3.2 Summarize the clinical case for handover to an accepting physician

Pediatric Cardiology

EPA 27: Leading an inpatient cardiology ward team

Key Features: This EPA focuses on all aspects of leading an inpatient team, including responsibility for the medical care decisions, collaboration with other health care professionals, communication with the patient and family, and supervision of trainees.

- The observation of this EPA is not based on a single patient encounter, but rather on the fellow performance over a period of at least one week.
- The observation of this EPA must include patient care (observation by supervisor) and interprofessional care (multisource feedback from health care team).

Assessment Plan:

Direct and indirect observation by cardiologist, based on at least one week of clinical activity. Multiple observers provide feedback individually, which is then collated to one report

Assessment form collects information on:

- Complexity of case load: low; high
- Observer: cardiologist; nurse; nurse practitioner; other health care professional; junior fellow

Basis for formal entrustment decisions:

Collect 2 observations of achievement

- At least 1 case load of high complexity
- At least 1 feedback from 4-6 observers (at least 1 cardiologist) collated in one report

When unsupervised practice is expected to be achieved: PGY 3

Relevant Milestones:

- 1 L 4.1 Set priorities and manage time to fulfil diverse responsibilities
- 2 ME 3.1 Determine the most appropriate procedures or therapies for the purpose of assessment and/or management
- 3 L 2.1 Consider costs and resource availability when selecting diagnostic or treatment options
- 4 ME 2.4 Formulate and implement plans for discharge that include appropriate ongoing care and follow-up
- 5 S 3.4 Integrate best evidence and clinical expertise into decision-making
- 6 ME 4.1 Coordinate investigation, treatment, and follow-up when multiple physicians and health care professionals are involved
- 7 HA 1.1 Facilitate timely patient access to services and resources
- 8 COL 1.2 Delegate responsibilities to members of the health care team appropriate to their scope of practice and level of expertise
- 9 S 2.3 Supervise junior learners to ensure patient safety
- 10 P 1.1 Exhibit appropriate professional behaviors
- 11 P 1.1 Respond punctually to requests from patients or other health care professionals

- 12 COL 1.2 Make effective use of the scope and expertise of other health care professionals
- 13 COL 1.1 Respond appropriately to input from other health care professionals
- 14 COL 1.3 Communicate effectively with physicians and other health care professionals
- 15 S 2.2 Ensure a safe learning environment for all members of the team
- 16 S 2.4 Provide formal and informal teaching for junior learners
- 17 S 2.5 Provide useful, timely, constructive feedback

Pediatric Cardiology

EPA 28: Providing interpretation of ambulatory ECG monitoring and complex ECGs

Key Features: This EPA focuses on providing high quality interpretation of 12 lead ECGs, atrial wire ECGs, and Holter monitor studies.

- This includes efficiency and accuracy of interpretation and timeliness of providing results.
- The observation of this EPA is based on the supervisor and fellow talking through the fellows approach to interpretation and the diagnosis together.
- The observation of this EPA must include interpreting ambulatory ECG monitoring (one study) and interpreting a batch of ECGs.

Assessment Plan:

Review of fellow report by cardiologist

Assessment form collects information on:

- Case mix initial (select all that apply): arrhythmia; structural heart disease; pacemaker/ICD
- ECGs in batch (write in):
- Number with abnormal findings (write in):
- Number with CIED (write in):
- Finding (select all that apply): arrhythmia; possible ischemia; structural heart disease; pacemaker; ICD

Basis for formal entrustment decisions:

Collect 10 observations of achievement for ambulatory ECG studies

- At least 1 pacemaker/ICD
- No more than 2 normal studies

Collect 4 observations of achievement for interpreting a batch of ECGs

- At least 10 ECGs per batch
- At least 2 batches with pacemakers or other CIEDs
- At least 2 assessors

When unsupervised practice is expected to be achieved: PGY 3

Relevant Milestones:

- 1 ME 1.3 Apply knowledge of cardiac electrophysiology
- 2 ME 3.4 Assess the quality and validity of the study, and any impact on the diagnostic interpretation
- 3 ME 3.4 Summarize findings of clinical relevance
- 4 ME 3.4 Provide suggestions for further testing and/or management as appropriate
- 5 COM 5.1 Provide clear, concise, and accurate reports of diagnostic testing in a timely fashion

- 6 COM 5.1 Communicate critical results urgently, as needed
- 7 ME 1.3 Apply knowledge of cardiac electrophysiology
- 8 ME 3.4 Assess the quality and validity of the study, and any impact on the diagnostic interpretation
- 9 COM 5.1 Provide clear, concise, and accurate reports of diagnostic testing in a timely fashion
- 10 COM 5.1 Communicate critical results urgently, as needed

Pediatric Cardiology

EPA 29: Performing, interpreting, and managing the results of cardiovascular implantable electronic device (CIED) interrogations

Key Features: This EPA focuses on the technical skills of pacemaker interrogation as well as the expertise in managing implanted cardiac devices (i.e., Reveal device).

- This includes identification and appropriate management of critical findings.

Assessment Plan:

Direct observation by cardiologist or technologist

Assessment form collects information on:

- CIED type: single chamber; dual chamber
- Troubleshooting/adjustment needed: no; yes

Basis for formal entrustment decisions:

Collect 2 observations of achievement

- At least 1 dual chamber
- At least 1 that needed troubleshooting/adjustment

When unsupervised practice is expected to be achieved: PGY 3

Relevant Milestones:

- 1 ME 1.3 Apply knowledge of device therapies, including equipment and modalities
- 2 ME 3.4 Interrogate permanent pacemakers and implanted devices, as appropriate to the type of device
- 3 ME 2.2 Interpret the results of device interrogation in the context of the clinical presentation
- 4 ME 3.4 Adjust device settings as indicated
- 5 ME 3.4 Recognize device and/or lead problems
- 6 COM 5.1 Document the encounter to convey the procedure and outcome
- 7 P 1.1 Work within personal limitations, asking for assistance as needed

Pediatric Cardiology

EPA 30: Interpreting cardiac catheterization data

Key Features: This EPA focuses on identifying and interpreting clinically relevant angiographic and hemodynamic findings.

- This includes providing recommendations for further investigation and/or management.
- Participating in and performing cardiac catheterization is an important learning experience in pediatric cardiology training; independent performance of the procedure is not an expectation of fellowship.

Assessment Plan:

Case review with cardiologist

Assessment form collects information on:

- Case mix: single ventricle assessment; shunt lesion; obstructive lesion; pulmonary hypertension; other (write in)

Basis for formal entrustment decisions:

Collect 5 observations of achievement

- At least 1 single ventricle assessment
- At least 1 obstructive lesion
- At least 1 pulmonary hypertension

When unsupervised practice is expected to be achieved: PGY 3

Relevant Milestones:

- 1 ME 3.4 Assess the quality and validity of the study, and any impact on the diagnostic interpretation
- 2 ME 1.3 Apply knowledge of cardiovascular anatomy, physiology, and pathophysiology
- 3 ME 2.2 Recognize clinically significant findings
- 4 ME 2.2 Interpret the angiographic images in the context of the clinical presentation
- 5 ME 2.2 Interpret the hemodynamic data and perform relevant calculations in the context of the clinical presentation
- 6 S 3.4 Integrate best evidence and clinical expertise into decision-making
- 7 ME 2.4 Provide recommendations for further testing and/or management

Pediatric Cardiology

EPA 31: Performing urgent pericardiocentesis

Key Features: This EPA focuses on the technical skills of pericardiocentesis.

- This EPA may be observed in a simulation setting.

Assessment Plan:

Direct observation by a cardiologist

Assessment form collects information on:

- Setting: clinical; simulation

Basis for formal entrustment decisions:

Collect 1 observation of achievement

When unsupervised practice is expected to be achieved: PGY 3

Relevant Milestones:

- 1 ME 3.2 Obtain and document informed consent, explaining the risks and rationale for the procedure
- 2 ME 3.4 Gather and/or manage the availability of appropriate instruments and materials
- 3 ME 3.4 Demonstrate aseptic technique: skin preparation; draping; establishing and respecting the sterile field; hand cleanse, gown, and glove
- 4 ME 1.3 Apply knowledge of key anatomic landmarks and procedural steps
- 5 ME 3.4 Perform pericardiocentesis, using ultrasound guidance as appropriate
- 6 ME 3.4 Monitor patient comfort and safety, and adjust the procedure as needed
- 7 P 1.1 Work within personal limitations, asking for assistance as needed
- 8 COL 1.2 Communicate effectively with nurses and/or assistants during the procedure
- 9 COM 5.1 Document the encounter to convey the procedure and outcome
- 10 ME 3.4 Establish and implement a plan for post-procedure care
- 11 ME 3.4 Recognize and manage immediate complications

Pediatric Cardiology: Transition to Practice

EPA 32: Managing the outpatient cardiology clinic

Key Features: This EPA focuses on all aspects of managing the outpatient clinic, including responsibility for medical care decisions, collaboration with other health care professionals, and communication with the patient and family.

- This includes time management, practice management and the judicious use of resources in the outpatient setting.
- The observation of this EPA is based on at least one half-day of clinic activity.

Assessment Plan:

Indirect observation by staff cardiologist, with input from clinic staff

Assessment form collects information on:

- Number of patients (write in):

Basis for formal entrustment decisions:

Collect 2 observations of achievement

- At least 4 patients per clinic
- At least 2 clinics

When unsupervised practice is expected to be achieved: PGY 3

Relevant Milestones:

- 1 COM 2.2 Manage the flow and timing of clinical encounters
- 2 ME 1.4 Perform clinical assessments that address all relevant issues
- 3 ME 2.2 Select investigation strategies demonstrating awareness of availability and access in the outpatient setting
- 4 ME 2.4 Develop comprehensive management plans
- 5 S 3.4 Integrate best evidence and clinical expertise into decision-making
- 6 ME 4.1 Determine the frequency and timing of future investigations and visits
- 7 COL 1.3 Work effectively with other health care professionals
- 8 COL 1.3 Provide accurate, timely and relevant documentation to the referring/ primary care physician

