**New Application: Pediatric Cardiac Anesthesiology**

**Review Committee for Anesthesiology**

**ACGME**

**Oversight**

**Participating Sites**

1. Does the Sponsoring Institution sponsor or affiliate with an ACGME-accredited pediatric anesthesiology fellowship program? [PR I.B.1.a)] [ ]  YES [ ]  NO

If affiliated, describe the relationship with the proposed pediatric cardiac anesthesiology program.

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**Resources**

1. Is there an emergency department in which cardiac patients are managed 24 hours a day? [PR I.D.1.a).(1)] [ ]  YES [ ]  NO
2. Is there an adequately designed post-anesthesia care area equipped for the management of pediatric cardiac patients and located near the operating room suite? [PR I.D.1.a).(2)]
 [ ]  YES [ ]  NO
3. Describe the facilities and equipment for research in cardiac anesthesiology available to fellows. [PR I.D.1.a).(3)]

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1. Are facilities available to provide the following non-invasive and invasive diagnostic and therapeutic congenital cardiothoracic procedures? [PR I.D.1.a).(4)]

	1. Cardiac catheterization [ ]  YES [ ]  NO
	2. Cardiac stress testing [ ]  YES [ ]  NO
	3. Cardiopulmonary scanning procedures [ ]  YES [ ]  NO
	4. Echocardiography [ ]  YES [ ]  NO
	5. Electrophysiological testing and therapeutic intervention [ ]  YES [ ]  NO
	6. Pulmonary function testing [ ]  YES [ ]  NO
2. Will fellows have access to laboratories that are available at all times and that provide prompt results, including for the following: [PR I.D.1.a).(5)]
	1. blood chemistries [ ]  YES [ ]  NO
	2. blood gas and acid base analysis oxygen saturation [ ]  YES [ ]  NO
	3. coagulation function [ ]  YES [ ]  NO
	4. hematocrit/hemoglobin [ ]  YES [ ]  NO
3. Is there monitoring and advanced life and circulatory support equipment representative of current levels of technology? [PR I.D.1.a).(6)] [ ]  YES [ ]  NO
4. Does the program have the following intensive care units available? [PR I.D.1.a).(7)]

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| --- | --- | --- | --- |
|  | **Yes** | **No** | **Number of Beds** |
| Neonatal | [ ]  | [ ]  | # |
| Pediatric | [ ]  | [ ]  | # |
| Medical | [ ]  | [ ]  | # |
| Surgical | [ ]  | [ ]  | # |

1. What is the total number of operating rooms equipped for the management of pediatric cardiac patients? [PR I.D.1.a).(8)] #
2. Describe the fellows’ systems for communication and interaction with supervisory physicians. [PR I.D.1.a).(9)]

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10. Clinical Pediatric Anesthesia Experience

Provide the data requested for each participating site listed in the Accreditation Data System (ADS) Use the site numbers as indicated in ADS.

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| Inclusive Dates: | Click here to enter a date. | To: | Click here to enter a date. |

| **Type of Procedure** | **Total # for Reporting Year by Site** | **Estimated Average # Cases per Fellow at End of Year** |
| --- | --- | --- |
| **Site #1** | **Site #2** | **Site #3** | **Site #4** |
| Cardiac - with cardiopulmonary bypass (CPB) | # | # | # | # | # |
| **Correction/Palliation/Revision of Congenital Cardiac Lesions on Bypass** |
| Hypoplastic Left Heart Syndrome | # | # | # | # | # |
| Other Neonatal Procedures (such as truncus arteriosus and total anomalous pulmonary venous return) | # | # | # | # | # |
| Transposition of the Great Arteries | # | # | # | # | # |
| Common Atrioventricular Canal, Tetralogy of Fallot, and Ventricular/Atrial Septal Defect | # | # | # | # | # |
| Bidirectional Glenn | # | # | # | # | # |
| Fontan | # | # | # | # | # |
| Valvular Lesion | # | # | # | # | # |
| Palliative Shunt | # | # | # | # | # |
| **Correction/Palliation/Revision of Congenital Cardiac Lesions off Bypass** |
| Aortic Coarctation | # | # | # | # | # |
| Patent Ductus Arteriosus | # | # | # | # | # |
| Vascular Ring | # | # | # | # | # |
| **Catheterization Procedures** |
| Diagnostic Procedures | # | # | # | # | # |
| Interventional Catheterization Procedures | # | # | # | # | # |
| **Management of Patients** |
| Cardiac or Lung Transplantation | # | # | # | # | # |
| Placement of Circulatory Assist Devices | # | # | # | # | # |
| **Other Procedures** |
| Electrophysiology Procedures requiring General Anesthesia | # | # | # | # | # |
| Medical Imaging Procedures | # | # | # | # | # |
| Central Venous Catheterization | # | # | # | # | # |
| Arterial Line Placement | # | # | # | # | # |

11. Clinical Program

1. Distribution of pediatric cardiac clinical cases for a recent 12-month period.

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| Inclusive Dates: | Click here to enter a date. | To: | Click here to enter a date. |

| **Provide the number for surgical services** | **Site #1** | **Site #2** | **Site #3** | **Site #4** |
| --- | --- | --- | --- | --- |
| General surgery | # | # | # | # |
| Cardiac surgery | # | # | # | # |

**Other Learners and Other Care Providers**

1. Describe the differences in responsibilities for the fellows from those of the pediatric anesthesiology fellows. [PR I.E.2.]

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1. Describe the planned degree of interaction between the fellows and the fellows in the pediatric anesthesiology program. [PR I.E.2.]

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**Educational Program**

**ACGME Competencies**

**Patient Care and Procedural Skills**

1. Indicate the settings and activities in which fellows will demonstrate competence in evaluating and treating patients in each of the categories listed below. Also indicate the method(s) that will be used to assess competence.

| **Competency Area** | **Settings/Activities** | **Assessment Method(s)** |
| --- | --- | --- |
| Following standards for patient care and established guidelines and procedures for patient safety, error reduction, and improved patient outcomes. [PR IV.B.1.b).(1).(a)] | Click here to enter text. | Click here to enter text. |
| Hemodynamic, respiratory, and neurophysiologic monitoring[PR IV.B.1.b).(1).(b).(i)]  | Click here to enter text. | Click here to enter text. |
| Interpretation of cardiovascular and pulmonary diagnostic test data[PR IV.B.1.b).(1).(b).(ii)] | Click here to enter text. | Click here to enter text. |
| Peri-operative critical care, including ventilatory support and peri-operative pain management [PR IV.B.1.b).(1).(b).(iii)] | Click here to enter text. | Click here to enter text. |
| Pharmacological and mechanical circulatory support [PR IV.B.1.b).(1).(b).(iv)] | Click here to enter text. | Click here to enter text. |
| Pre-operative patient evaluation and optimization of clinical status prior to the cardiac procedure[PR IV.B.1.b).(1).(b).(v)] | Click here to enter text. | Click here to enter text. |

1. Will fellows maintain current certification in pediatric advanced life support and advanced cardiac life support? [PR IV.B.1.b).(1).(c)] [ ]  YES [ ]  NO

Explain if “NO”

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1. Indicate the settings and activities in which fellows will develop competence in performing all medical, diagnostic, and surgical procedures considered essential for practice in pediatric anesthesiology. Also indicate the method(s) that will be used to assess competence.

| **Competency Area** | **Settings/Activities** | **Assessment Method(s)** |
| --- | --- | --- |
| Providing anesthesia care for patients undergoing cardiac surgery with and without extracorporeal circulation[PR IV.B.1.b).(2).(a)] | Click here to enter text. | Click here to enter text. |
| Providing anesthesia care for patients undergoing surgery, including operations on the lung and thoracic aorta.[PR IV.B.1.b).(2).(b)] | Click here to enter text. | Click here to enter text. |
| Management during cardiopulmonary bypass (CPB).[PR IV.B.1.b).(2).(b)] | Click here to enter text. | Click here to enter text. |

1. Describe how fellows will be actively involved in the management of other extracorporeal circulatory assist devices [PR IV.B.1.b).(2).(c)]

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**Medical Knowledge**

Indicate the activity(ies) (lectures, conferences, journal clubs, clinical teaching rounds, etc.) in which residents will demonstrate knowledge in each of the following areas. Also indicate the method(s) that will be used to assess competence.

| **Area of Knowledge** | **Settings/Activities** | **Assessment Method(s)** |
| --- | --- | --- |
| Cardiac catheterization procedures and diagnostic interpretation, to include invasive cardiac catheterization procedures, including angioplasty, stenting, device placement, and transcatheter laser and mechanical ablations [PR IV.B.1.c).(1).(a)] | Click here to enter text. | Click here to enter text. |
| Cardiac surgical procedures, to include repair of congenital heart lesions; valve repair and replacement; pericardial, neoplastic procedures; and heart and lung transplantation; and myocardial revascularization [PR IV.B.1.c).(1).(b)] | Click here to enter text. | Click here to enter text. |
| Circulatory assist devices, to include intra-aortic balloon pumps, left and right ventricular assist devices, and extracorporeal membrane oxygenation (ECMO) [PR IV.B.1.c).(1).(c)] | Click here to enter text. | Click here to enter text. |
| Embryological development of the cardiac structures[PR IV.B.1.c).(1).(d)] | Click here to enter text. | Click here to enter text. |
| Ethical and legal issues, and practice management [PR IV.B.1.c).(1).(e)] | Click here to enter text. | Click here to enter text. |
| Extracorporeal circulation, to include myocardial preservation; effects of CPB on pharmacokinetics and pharmacodynamics; cardiac, respiratory, neurological, metabolic, endocrine, hematological, renal, and thermoregulatory effects of CPB; and coagulation/anticoagulation before, during, and after CPB[PR IV.B.1.c).(1).(f)] | Click here to enter text. | Click here to enter text. |
| Inotropes, chronotropes, vasoconstrictors, and vasodilators[PR IV.B.1.c).(1).(g)] | Click here to enter text. | Click here to enter text. |
| Non-invasive cardiovascular evaluation, to include electrocardiography, transthoracic echocardiography, TEE, stress testing, and cardiovascular imaging [PR IV.B.1.c).(1).(h)] | Click here to enter text. | Click here to enter text. |
| Non-invasive pulmonary evaluation, to include pulmonary function tests, blood gas and acid-base analysis, oximetry, capnography, and pulmonary imaging[PR IV.B.1.c).(1).(i)] | Click here to enter text. | Click here to enter text. |
| Pacemaker insertion and modes of action [PR IV.B.1.c).(1).(j)] | Click here to enter text. | Click here to enter text. |
| Pain management of cardiac patients [PR IV.B.1.c).(1).(k)] | Click here to enter text. | Click here to enter text. |
| Pathophysiology, pharmacology, and clinical management of patients with cardiac disease, to include cardiomyopathy, heart failure, cardiac tamponade, ischemic heart disease, acquired and congenital valvular heart disease, congenital heart disease, electrophysiologic disturbances, and neoplastic and infectious cardiac diseases [PR IV.B.1.c).(1).(l)] | Click here to enter text. | Click here to enter text. |
| Peri-anesthetic monitoring, both non-invasive and invasive (intra-arterial, central venous, pulmonary artery, mixed venous saturation, cardiac output, near-infrared spectroscopy)[PR IV.B.1.c).(1).(o)] | Click here to enter text. | Click here to enter text. |
| Peri-operative ventilator management, to include intra-operative anesthetics, and critical care unit ventilators and techniques [PR IV.B.1.c).(1).(p)] | Click here to enter text. | Click here to enter text. |
| Pharmacokinetics and pharmacodynamics of anesthetic medications prescribed for pediatric cardiac patients[PR IV.B.1.c).(1).(q)] | Click here to enter text. | Click here to enter text. |
| Pharmacokinetics and pharmacodynamics of medications prescribed for management of hemodynamic instability [PR IV.B.1.c).(1).(r)] | Click here to enter text. | Click here to enter text. |
| Pharmacokinetics and pharmacodynamics of medications prescribed for medical management of pediatric cardiac patients [PR IV.B.1.c).(1).(s)] | Click here to enter text. | Click here to enter text. |
| Post-anesthetic critical care of pediatric cardiac patients[PR IV.B.1.c).(1).(t)] | Click here to enter text. | Click here to enter text. |
| Pre-anesthetic evaluation and preparation of adults with congenital heart disease[PR IV.B.1.c).(1).(u)] | Click here to enter text. | Click here to enter text. |
| Quality assurance/improvement[PR IV.B.1.c).(1).(v)] | Click here to enter text. | Click here to enter text. |
| Thoracic aortic surgery, to include ascending, transverse, and descending aortic surgery with circulatory arrest; CPB employing low flow and or retrograde perfusion; and spinal cord protection.[PR IV.B.1.c).(1).(w)] | Click here to enter text. | Click here to enter text. |

**Practice-based Learning and Improvement**

1. Briefly describe one planned learning activity or project that will allow fellows to demonstrate an ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on self-evaluation and lifelong learning. [PR IV.B.1.d)] (Limit response to 400 words)

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**Interpersonal and Communication Skills**

1. Briefly describe one learning activity in which fellows will develop interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, patients’ families, and health professionals. [PR IV.B.1.e)] (Limit response to 400 words)

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1. Briefly describe one learning activity in which fellows will demonstrate effective communication skills in acquisition of informed consent; description, and management of the patient care plan; and disclosure and management of complications/errors. [PR IV.C.6.a)] (Limit response to 400 words)

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1. Briefly describe one learning activity in which fellows will demonstrate competence in providing clinical consultations. [PR IV.C.6.c)] (Limit response to 400 words)

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**Curriculum Organization and Fellow Experiences**

1. Provide a list of the lectures, peer-review case conferences, morbidity and mortality conferences, interdepartmental conferences, departmental grand rounds, or other didactic exercises planned. Include all presentations represented in the curriculum, designating those specific to the fellowship with an asterisk. Include the date, title, and instructor and whether the presenter is a faculty member, fellow, or guest. Add rows as necessary. [PR IV.C.11]

| **Date** | **Title** | **Instructor** | **Check as Appropriate** |
| --- | --- | --- | --- |
|  |  |  | **Faculty** | **Fellow** | **Guest** |
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* 1. Describe the subspecialty conferences, including review of all current complications and deaths, seminars, and clinical and basic science instruction and how often they will be conducted. [PR IV.C.11.a)]

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* 1. Describe the fellows' expected participation in planning and conducting conferences and other teaching activities. [PR IV.C.11.b)]

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1. Estimate the proportion (%) of the didactic program provided by each of the following:
[PR IV.C.11.c).(1)]

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| Anesthesia faculty/staff members of this hospital | # % |
| Non-anesthesiologist physicians from this hospital | # % |
| Anesthesia faculty/staff members from affiliated or integrated hospitals | # % |
| Outside speakers | # % |
| Fellow assignments or contributions | # % |

**Professionalism**

1. Describe the learning activity(ies), other than lecture, by which fellows will demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles, including: compassion, integrity, and respect for others; responsiveness to patient needs that supersedes self-interest; respect for patient privacy and autonomy; accountability to patients, society, and the profession; and sensitivity and responsiveness to a diverse patient population, including to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.
[PR IV.C.7.] (Limit response to 400 words)

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1. Describe one learning activity by which fellows will demonstrate compliance with institutional, departmental, and program policies. [PR IV.C.7.f)] (Limit response to 400 words)

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**Systems-based Practice**

1. Describe the learning activity(ies) through which fellows will demonstrate an awareness of and responsiveness to the larger context and system of health care, including the social determinants of health, as well as the ability to call effectively on other resources in the system to provide optimal health care. [PR IV.B.1.f)] (Limit response to 400 words)

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1. Describe one learning activity in which fellows will work in interprofessional teams to enhance patient safety and improve patient care quality. [PR IV.C.8.a)] (Limit response to 400 words)

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1. Describe one learning activity in which fellows will identify system errors and assist in the implementation of potential system solutions. [PR IV.C.8.b)] (Limit response to 400 words)

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**Scholarship**

1. Describe the instructions that fellows will receive in the fundamentals of research design and conduct, and the interpretation and presentation of data. [PR IV.D.1.a).(1)]

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| Click here to enter text. |

2. Will fellows have the opportunity to be involved in a scholarly project related to the subspecialty and that is suitable for publication? [PR IV.D.3.a)] [ ]  YES [ ]  NO

Explain if “NO”

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| Click here to enter text. |

a) What provisions will be made for fellows to attend local, regional, and national meetings?
[PR IV.D.3.a).(1)]

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| Click here to enter text. |

b) Will faculty members be available to mentor and oversee fellows’ scholarly projects? [PR IV.D.3.a).(2)]
 [ ]  YES [ ]  NO

Explain if “NO”

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| Click here to enter text. |