

24-hours acute pain service available for paediatric patients undergoing different procedures	Yes	7	
Meeting Rooms	Yes	7	6
Classrooms with visual and other educational aids	Yes	7	2
Study areas for fellows	Yes	7	4

7. The skills and Responsibilities

Will your Program offer a 12 months' fellowship education in fundamental clinical skills of medicine relevant to the practice of CHD?

Yes

If yes, for each rotation or experience below, specify the duration (in months, four weeks = one month) during the 12 months of education in fundamental clinical skills.

Caring for inpatients in	Number of performed procedures/year	
	Center (1)	Center (2)
Total number of paediatric patients (16 years or younger) with CHD undergoing surgery using CPB per year	350	
Total number of paediatric patients (16 years or younger) with CHD undergoing surgery without using the CPB per year	70	
Total number of paediatric patients (4 years or younger) with CHD undergoing surgery using CPB per year	270	
Total number of paediatric patients (4 years or younger) with CHD undergoing surgery without using the CPB per year	53	
Total number of paediatric patients (one year or younger) with CHD undergoing surgery using CPB per year	210	
Total number of paediatric patients (one year or younger) with CHD undergoing surgery without using the CPB per year	20	
Total number of adult patients with CHD undergoing surgery using CPB per year	10	
Total number of adult patients with CHD undergoing surgery without using the CPB per year	0	
Total number of paediatric patients (16 years or younger) with CHD undergoing interventional cardiology per year	app 850	
Total number of adult patients with CHD undergoing interventional cardiology per year	110	
Cardiac surgery without CPB	200	
Interventional Cardiac Catheterization		
PICU	12 Beds	
Electrophysiology Lab (e.g. mapping, ablation, pacemakers, ICDs)	20	
Heart, Lung, and Heart/Lung Transplants	0	
ECLS, VAD Procedures	0	
Echocardiography Lab	798	
Tracheo-Bronchial Surgery	3	
Basic or Advanced Research	4	
Rotations in	Number of cases	
Paediatric cardiac anaesthesia		
Surgical cases with CPB	176	
VSD or ASD	45	
Altoventricular septal defect	17	
Tetralogy of Fallot	15	
Left-sided valve lesion	28	
Bidirectional Glenn	13	
Fontan procedure	21	
Rastelli and Damus-Kaye-Stansel procedures, intracardiac tumor	3	
Other	40	
Surgical cases without CPB	30	
Modified Blalock-Taussig shunts	1	
Coarctation repair	5	
Pulmonary artery banding	8	
PDA closure	2	
Treatment of vascular rings	2	
Other	14	
Paediatric interventional cardiac catheterization	166	
Diagnostic	73	
Neonatal aortic or pulmonary vessel or valve treatment (e.g. Pulmonary artery stenosis, coarctation)	142	
ASD, VSD, or PDA device closure	46	
Other therapeutic	200	
Care of adult patients with CHD	53	
Trans-oesophageal and trans-thoracic echocardiography	225	
Medical or surgical Critical Care Rotation	1 Month	
Paediatric EPS	12	
Extracorporeal perfusion or ECLS technology (CPB, ECMO)	20	
Paediatric thoracic anaesthesia	24	
Basic Research	yes	
Clinical Research	yes	

All fellows entering the PCA Program will complete each of the fundamental medical knowledge of requirements included in the EACTAIC PCA Curriculum Yes

All fellows entering the PCA Program will complete each of the fundamental clinical / technical skills of requirements included in the EACTAIC PCA Curriculum Yes

Clinical Responsibility

The fellow takes part in the clinical routine as well as in clinical conferences with the Section of Paediatric Anaesthesiology, Cardiology, and Paediatric Cardia Surgery. The fellow also takes part in preparation and presentation of case conferences, and the entire didactic method is provided through lectures and conferences that allow him/her to acquire the knowledge to care for the patients.

All fellows entering the PCA Program will complete each of the fundamental non- technical skills of requirements included in the EACTAIC PCA Curriculum Yes

Non-technical skills

To train the fellows non-technical skills, we decided to adopt a CRM approach using both classroom and simulator sessions. We have access to a well equipped skills lab with high fidelity human patient simulators—which feature a lifelike, computer driven mannekin set within a realistic clinical environment—enables the creation of clinical scenarios to examine behavioural aspects of performance. Simulated scenarios involving operating theatre based cases were used to allow participants to put non-technical skills into practice and debriefing was conducted using our established framework to discuss and provide feedback on behavioural aspects of performance. Debriefing will be also used to investigate underlying cognitive processes.

List any other rotations (along with their duration, in months) offered in the Program to augment fellows' learning (e.g. General adult cardiac anaesthesia, Adult TEE,...).

Adult cardiac surgery for GUCH patients, PICU, Cath lab, Cardiac MRI, Cardiac CT

Will advanced subspecialty rotations reflect increased responsibility and learning opportunities? No

Will the fellow assume on call duties in the hospital? Yes

If yes please provide whether this will be only for PCA or will be for pediatric anaesthesia and/or cardiac anaesthesia?

How will be the financial aspects of these on call duties? on regular wage agreement of the hospital

Will the fellow have a free day following an on call duty? Yes

How will be the financial aspect of these on call duties. Please describe in detail. on regular wage agreement of the hospital

Maximum Time in Non-Clinical Activities per week

8. Financial Statement

An employment contract will be signed with the candidate Yes

Accommodation options are provided No

Transportation/travel options are provided No

Monthly Salary Amount Currency is VAT / Taxes included? No

This opportunity is not funded by the centre No Source of financial support for the candidate:

Others

Will the working hours directives be respected according to the prevailing national law? Yes

9. Educational and Academic Programs

Didactic Sessions

What will be the frequency of the following educational topics in the program's schedule?

	Weekly	Bi-weekly	Monthly	Quarterly	Semi-annually	Annually	Fellows' attendance would be monitored
Critical care appraisal of the literature (i.e., journal club)	Yes	No	Yes	Yes	No	No	Yes
Quality Improvement (M&M, QM)	Yes	No	No	No	No	No	Yes
Board review (e.g., oral exams, keywords)	No	No	No	No	No	Yes	Yes
Grand rounds	Yes	No	No	No	No	No	Yes

Other (specify) Click here to enter text.

Formal Course Work Available in To train the fellows non-technical skills, we decided to adopt a CRM approach using both classroom and simulator sessions. We have access to a well equipped skills lab with high fidelity human patient simulators—which fe

Extra-Institutional Educational Conference Support: Kinderanästhesie aktuell, Conference in Cologne (annually)

The Opportunity for Exchange with other training facilities Yes

10. Assessment

The Program Director will evaluate each fellow every four months as per EACTAIC regulations Yes

A documentary evaluation process will be undertaken at least once every four months.

The 4-monthly evaluation will include

- 360-degree evaluation
- Clinical skills evaluation (CSE)
- Personal reports from the faculty
- Reflection and self-assessment by the Fellow
- Learning goals for the next four months
- Feedback from the fellow on the quality of education

Yes
Yes
Yes
Yes
Yes
Yes
Yes

11. Practice-based Learning and Improvement

1. Briefly describe the main learning activities regarding non-clinical skills and their assessment during the fellowship

The department has access to a skills lab for simulation and interpersonal training. The Fellow will be encouraged to participate in simulation trainings.

2. Briefly describe one planned quality improvement activity or project that will allow the fellows to demonstrate an ability to analyse, improve and change practice or patient care. Describe planning, implementation, evaluation and provisions of faculty support and supervision that will guide this process.

Fellows should monitor the ERAS Protocol and will work on the statistics. Support will be guaranteed by the study nurse of the department

3. Briefly describe how fellows will participate in the education of patients, families, students, fellows, and other health professionals.

The fellow will go for one week in the department of social workers of the hospital. There he will learn about the patient's social level and cultural backgrounds. The patient or family will be encouraged to repeat back with their own words their understanding of the situation that was discussed.

12. Interpersonal and Communication Skills

1. Briefly describe one learning activity in which fellows demonstrate competence in communicating effectively with patients and families across a broad range of socioeconomic and cultural backgrounds, and with physicians, other health professionals, and health-related agencies.

During the pre-anesthetic visit, the fellows are oriented to inform patients and family the best way possible, of all the risks that patient will be submitted and the alternative treatments that may occur as a result of adverse events. During the pre-operative screening process the fellow learns by attending

2. Briefly describe one learning activity in which fellows demonstrate their skills and habits to work effectively as members or leaders of a health care team or other professional group. In the example, identify the members of the team, responsibilities of the team members, and how team members communicate to accomplish responsibilities.

The University has a comprehensive PDMS in the OR as well as on the ICU. We call ourselves "paperless hospital" that means the fellow will learn a lot about clinical information systems including electronic anesthesia records, Echo data management, and even online patient informed consent.

3. Briefly describe how fellows will be provided with opportunities to act in a consultative role to other physicians and health professionals related to clinical information systems.

The fellow will be asked to participate in the daily OR scheduling meeting. This reunion is held by the head of OR, head of cardiac anesthesia and head of cardiac surgery. The fellow will be invited to plan according to department priorities and structure availability. Selecting the cases for morning and afternoon shifts, having in mind any possible emergency case. During the fellowship, the fellow will be part of a multidisciplinary team (cardiologist and anesthesiologist, nurse assistants, perfusionist vascular and cardiac surgeons), also during the management of every patient the fellow will need to interact with other consultants, to address patient-specific issues.

4. Briefly describe how fellows will be provided with opportunities to maintain comprehensive, timely, and legible medical records, if applicable

The fellow will have full access / credentials to the preop clinic and inpatients electronic records. During OR rotations, the fellow will be asked to fill in the written operating summary and handover for cardiac cases. We work with a standardised electronic handover checklist following the SBAR concept. The intensive care unit documentation, as well as the anaesthesia protocol in the OR are computed by the PDMS, where hemodynamic measures as well as ventilator settings are being transferred automatically into the electronic reports. Other data, such as medication, fluids, lines, tubes and others have to be chosen out of a menu and confirmed manually to get transferred into the record. SBAR improves communication strategies and team performance, as well as team communication skills between doctors and nurses, which increases patient safety. But it does require team training in use and communication and that's what the fellow will learn

5. Briefly describe how fellows will maintain a comprehensive anesthesia record for each patient, including evidence of pre- and post-operative anesthesia assessment, an ongoing reflection of the drugs administered, the monitoring employed, the techniques used, the physiologic variations observed, the therapy provided as required, and the fluids administered.

The University of Bonn uses an electronic patient data management system (PDMS) at all anaesthetic workplaces and on the ICU. The candidate will receive a comprehensive introduction to the system by the administration team. The system is accessible online for a supervisor if necessary

6. Briefly describe how fellows will create and sustain a therapeutic relationship with patients, engage in active listening, provide information using appropriate language, ask clear questions, provide an opportunity for comments and questions, and demonstrate sensitivity and responsiveness to cultural differences, including awareness of their own and their patients' cultural perspectives.

In the preop anesthesia clinic, the fellow will always have to communicate with patients with different backgrounds. During the Operation, the fellow will be supervised while communicating with the surgeon, the perfusionist and the nurses. Additionally the fellow will be asked to take active part in the regular conferences and learn how to present patient records

13. Professionalism

Briefly describe the learning activity(ies), other than lecture, by which fellows 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

there is no dedicated program were fellows can learn about a commitment to carry 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

14. Systems-based Practice

1. Describe the learning activity(ies) through which fellows achieve competence in the elements of systems-based practice: working effectively in various health care delivery settings and systems, coordinating patient care within the health care system; incorporating considerations of cost-containment and risk-benefit analysis in patient care; advocating for quality patient care and optimal patient care systems; and working in inter-professional teams to enhance patient safety and care quality

The fellow will plan and demonstrate a clinical case at the conference. So, he/she has to do a literature research first and use information technology for that. Further, the fellow has the opportunity to collaborate in clinical research or academic projects. The University has an own Department for patient safety, one could think of getting in touch with this department and let the fellow participate in a quality management program. The fellow, as a member of the anaesthesiology team, should show competencies in working with the various health care delivery settings, and systems, coordinating patient care within the health care system with paying attention to the cost-containment and risk-benefit analysis in patient care.

2. Describe an activity that fulfills the requirement for experiential learning in identifying system errors and implementing potential systems solutions.

The fellow will at least work for one week with the hospital own CIR5 system and should prepare at least one case for demonstration in our M&M conference

15. EACTAIC Site Visit (for 1-day)

Dates proposed for the visit (at least 3) or or
I hereby accept the regulations of the Hospital Visiting especially to take in charge the travel costs and the hotel accommodation of the 2 reviewers on the most reasonable base

To be completed by the Head of department or the authorised deputy.
Please fill in all required fields and send to eactaic@aimgroup.eu



European Association of Cardiothoracic Anaesthesiology and Intensive Care

Checklist for Hosting EACTAIC Paediatric Cardiothoracic Anaesthesia Fellowship Programme

Institution Name	Schindler, Ehrenfried, Dep. for Anesthesiology and Critical Care Medicine, University of Bonn
Address	Universitätsklinikum Bonn (UKB) Klinik für Anästhesiologie und operative Intensivmedizin (KAI) Gebäude 30 4. OG/ Raum: 116 Venusberg-Campus 1 53127 Bonn, Germany
Preferred Duration	<input checked="" type="checkbox"/> 12 months

Type of fellowship training available:

- Clinical only
- Clinical / Basic Research
- Clinical / Clinical Research
- Basic Research only
- Clinical Research only

Financial Statement

** The financial sources policy should be declared by the host centre. Yes No

** There should be a clear consensus between the host centre and the trainee about the financial statement before joining the programme.

An employment contract will be signed with the candidate Yes No

Accommodation options are provided Yes No

Transportation/travel options are provided Yes No

Monthly Salary: Amount Currency

The centre does not fund this opportunity Yes No

Source of financial support for the candidate:

- Host centre (monthly salary)
- Candidate 's centre
- Scholarship
- Educational grant
- Award
- Candidate's expenses
- Others

Please, describe

[Click here to enter text.](#)

Programme Training and facilities of the host centre

1. The fellow should be authorized to provide direct patient care during their training programme under the supervision of the programme director and faculty's members, "i.e. hands-on practice."	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Declaration of financial recourses and signed agreement between the host centre and trainee.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3. Uninterrupted training for 12months.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4. The head of the department or other advisory authority should approve the programme.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. The programme director should attain sufficient time to do his responsibilities.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No



European Association of Cardiothoracic Anaesthesiology and Intensive Care

If yes, please define	
<input style="width: 100%;" type="text" value="Click here to enter"/> hours per day	
<input style="width: 100%;" type="text" value="10%"/> days per week	
<input style="width: 100%;" type="text" value="Click here to enter"/> days per month	
6. At least two faculty members should be involved.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7. Evaluation should be done every four months.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
8. A portfolio/logbook will be performed monthly and signed by the programme director	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9. The hosting centres should have:	
9.1 Available paediatric ward beds for congenital heart disease (CHD) patients.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.2 Available PICU beds dedicated to CHD patients	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.3 Is there an emergency department in which CHD patients are managed 24 hours a day?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.4 Are adult patients with CHD managed in the host centre?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.5 Is there monitoring and advanced life support equipment representative of current levels of technology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.6 Available an outpatient Clinic for perioperative evaluation of patients undergoing cardiothoracic and vascular procedures	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.7 24-hours acute pain service available for paediatric patients undergoing different procedures	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.8 Available Meeting Rooms	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.9 Available classrooms with visual and other educational aids	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.10 Available study areas for fellows	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.11 The volume of cases. *	
9.5.1 Minimum of 100 paediatric cardiac surgery (age of 16 years or younger) per calendar year. (the majority with using the CPB)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.5.2 Minimum of 50 paediatric cardiac interventional procedures (age of 16 years or younger) per calendar year.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.5.3 50% of cases should be performed in children aged younger than four years.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.5.4 20% should be performed in children aged younger than one month.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.5.5 Available simultaneous management of adults with congenital heart disease (ACHD).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.5.6 Accessibility for training in the electrophysiology procedures on paediatric patients.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.5.7 Accessibility for training in the dedicated paediatric intensive care unit for one month.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.5.8 Accessibility for training on the Extracorporeal perfusion or ECLS technology (CPB, ECMO)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.5.9 Accessibility for training on the paediatric thoracic anaesthesia	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9.5.10 Accessibility for training on the basic and/or clinical research	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Decision Approve Reject
Conditions Yes No

If yes, please define

Click here to enter text.

Submit

Please fill in all required fields and send them to eactaic@mci-group.com

Universitätsklinikum Bonn, KAI, Venusberg-Campus 1, Gebäude 22, 53127 Bonn

European Association of Cardiothoracic Anaesthesiology and Intensive Care
(EACTAIC)
Education Committee
Education Chair Prof. Mohamed R. El Tahan, MD

Klinik für Anästhesiologie und
Operative Intensivmedizin



Univ.-Prof. Dr. med.
Ehrenfried Schindler

Tel: +49 (0) 228 287-37595
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ehrenfried.schindler@ukbonn.de

Dear Prof El Tahan,

I am writing on behalf of the Department of Anaesthesiology and Critical Care
Medicine, Section Paediatric Anaesthesiology.

I want to apply to become training centre for the EACTAIC Fellowship program.
Our paediatric cardiac surgical programme is one of the biggest in Germany. Due
to the large number of the most complex cardiac surgery we can insure a specific
and most comprehensive education. As we are University Hospital we are also
deeply involved in research as you can see from our pubmed results. Due to the
large numbers of cases we are able to accept one fellow each year. We think that
paediatric cardiac surgery should not only be trained alone in the cardiac OR but
also in the areas of diagnostics and intervention like cath lab, MRI, CT and
Endoscopy we can guarantee a significant number of cases there. Right now we
have 8 full scale paediatric anaesthesia consultants, 3 residents in training and
medical students on a weekly basis in our section.

Since more than 20 years we have an exchange programme with the cardiac
PICU and we are able to offer a time period for the fellow there. We can
guarantee a one month period.

Mohamed, if you need any other information please do not hesitate to contact
me immediately

sincerely

Univ.-Prof. Dr. med. Dr. habil Ehrenfried Schindler
Head Section Paediatric Anaesthesiology

Bonn, 15.09.2021

Universitätsklinikum Bonn
Venusberg-Campus 1
Gebäude 22, 3. Etage, Raum 060
53127 Bonn

Ihr Weg zu uns
auf dem UKB-Gelände:




DB6VBC



Universitätsklinikum Bonn, KAI, Venusberg-Campus 1, Gebäude 22, 53127 Bonn

European Association of Cardiothoracic
Anaesthesiology and Intensive Care
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MD

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Operative Intensivmedizin

**Univ.-Prof. Dr. med.
Mark Coburn**
Direktor

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mark.coburn@ukbonn.de

Bonn, 15. September 2021

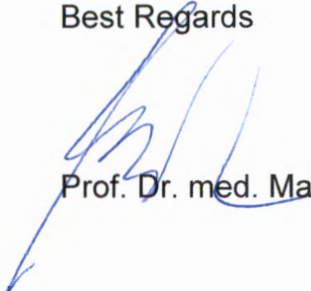
In order to fulfill the needs for training and education I guarantee that the programm leader Prof. Schindler will have a minimum of 10% of weekly working time for training the trainees in the Fellowship and Exchange Training Programme of the EACTAIC

Sekretariat

Carola Donnhof
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carola.donnhof@ukbonn.de

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53127 Bonn

Best Regards


Prof. Dr. med. Mark Coburn

Ihr Weg zu uns
auf dem UKB-Gelände:



WPAW33





Operation Area	Monday	Tuesday	Wednesday	Thursday	Friday
OR 1	Ped Card Surgery	Ped Card Surgery	Ped Card Surgery	Ped Card Surgery	Ped Card Surgery
OR 2	Ped Card Surgery	Ped Card Surgery	Ped Card Surgery	Ped Card Surgery	Ped Card Surgery
OR 3	Orthopedic Ped Surg	GUCH	Ped Surgery	GUCH	Neonatology Surg
Hybrid/Cath Lab	Diagnostic/Intervention	Diagnostic/Intervention	Diagnostic/Intervention	Diagnostic/Intervention	Diagnostic/Intervention
Diagnostics	MRI	Cardiac CT	MRI	MRI	MRI
Endoscopy				Ped endoscopy	
Cardiac PICU	Every day	Every day	Every day	Every day	Every day

This is an example of a weekly schedule during the fellow's cardiac anesthesia rotation period at the UKB

Each day our department provides anesthesia for 2 cardiac surgery operating rooms and one Hybrid OR. Additionally the fellow get the chance to do complex non-cardiac surgery in patients with congenital diseases

The GUCH patients are done in another building within the campus. Every cath lab procedure is performed with an anesthesiologist

The fellow should also learn about cardiac diagnostic procedures like MRI, CT as well as interventions in long term ICU patients like PEG or duodenal tubes insertions

On agreement with the PICU the fellow will also rotate to the cardiac PICU for a defined period up to negotiation but at least one month