

*A PICU Fellow's Guide to UT Southwestern, Children's
Medical Center Dallas, Life, the Universe, and
Everything
2007- 2008*

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I. INTRODUCTION

Welcome to the Division of Pediatric Critical Care Medicine! The Department of Pediatrics at UT Southwestern and Children's Medical Center Dallas are excited and pleased to have you joining our team. Fellowship will be one of the most challenging and rewarding experiences of your life, and we hope to be able to facilitate your journey through it as much as possible. Everyone in the Division is here to assist you in any way we can, so please do not be shy about asking anyone about anything anytime. We are committed to providing you with the best possible educational experience in academic pediatric critical care, and will do anything we can do to make that experience better. This manual is a small part of that effort, and is intended as an introduction to the nuts and bolts of how to navigate our fellowship program. It attempts to provide a broad overview of the three important areas of endeavor with which you will be wrestling (e.g., clinical education, research, and formal instruction) and specifically how to achieve success in all three. In addition, it provides some specific reference information that we thought might be useful (e.g., contact info, schedules, policies, etc.)

The routine, policies, and procedures at UT Southwestern and Children's Medical Center may be different from those where you trained. Don't panic! Use this difference as an opportunity for education. The more ways you learn to skin a cat, the better. However, we are all open to suggestions as to how we could do things better, and look forward to learning from your experiences.

Core Tenets of the ICU

- 1. Remain calm.**
- 2. Project confidence.**
- 3. Do as little as possible.**

(Taken from the Boy Scout Manual, as advice to any good scout who comes across a "lady having a baby.")

I.1 Pediatric Critical Care Medicine mission statement and goals of fellowship program

Mission Statement:

Making life better for critically ill children and their families through patient care, education, research, and advocacy.

Specific Goals:

To provide quality, cost-effective care to patients and their families.

To train individuals who are passionate about critical care medicine, and who will become academic leaders in the field.

To maintain an intellectual, diverse, educational environment which encourages questioning, honesty, and constructive feedback.

To lead the field of critical care medicine in basic, translational, and clinical research.

To advocate on behalf of children and their families, emphasizing prevention, treatment, and research relating to childhood critical illnesses.

Goals of the Pediatric Critical Care Medicine Fellowship Training Program:

- A. To develop a strong background in pediatric critical care medicine emphasizing the pathophysiology and management of life-threatening pediatric illnesses.
- B. To develop clinical expertise in the care of critically ill infants and children.
- C. To develop expertise in multidisciplinary care concepts for critically ill children, particularly those requiring long-term critical care, including: use of technological devices, development of complex discharge planning, and overseeing family needs during crises.
- D. To familiarize trainees with the difficult ethical questions that arise when caring for critically ill and injured children.
- E. To develop original lines of clinical and/or basic science research.
- F. To develop expertise at organization, analysis, preparation, and presentation of data.
- G. To develop teaching skills for both the informal and formal presentation of material.
- H. To develop expertise in the organizational and administrative skills necessary for the development and/or ongoing management of a multidisciplinary pediatric critical care unit.
- I. To train physicians for academic careers.

I.2 Orientation or, Stuff to do and know once you arrive

Orientation Month: July is dedicated to providing you with the most comprehensive preparation we can for the fairly daunting task of beginning to become the world's best intensivists. There will be a series of lectures centered on basic and core concepts of PICU. You get to attend courses on advanced technological therapies such as ECMO. You will be able to attend rounds in each of the units before actually having to function on them, to get an idea of how the day should run. You will be able to go to the operating room and perform procedures in a controlled environment under the watchful eyes of our excellent pediatric anesthesiologists. You get the wonderful privilege of being able to be on "shadow call" with some of your senior fellows, to get a feel for the inner-workings of a call night. And, perhaps most importantly, we have arranged a number of fun, warm, and fuzzy social events. In the appendix you will find a personalized schedule outlining all of these events.

And now for a very functional list of stuff to do:

1. Notify Tammy of your address and home phone number and spouse's and children's names and spouse's work number when you arrive and keep her informed of any changes that may occur during the year. Provide her with emergency contact information as well.
2. ID cards/Entry cards are obtained from Badge Office at the Children's Pavilion (adjacent to the Purple Park). Your ID card is your Parking Pass. Fellows may park in the upper levels of the Green Park (Doctor's Lot). The ID card also allows entry into all of the patient care areas of the hospital. If you lose it you will need to pay \$10.00 for a replacement. (Badge Office x1370)
3. Personnel forms and insurance forms must be completed before your paycheck can be processed. You will need proof of citizenship (birth certificate, Visa or passport) in order for UTSWMC to process your employment papers. U.S. citizens need two forms of identification.
4. Paychecks: Paychecks come from the medical school. You are paid the first working day of each new month (your first check will be Wednesday, August 1st). Direct deposit is available and encouraged. Forms may be completed and returned to the payroll department. It takes two months for this to take effect. Federal income taxes are **NOT** withheld, so you will be responsible for filing (Form 1040ES) and determining your own estimated taxes and paying them in quarterly intervals.

5. Your ID badge will allow you to purchase meals on line. Each month that you are on call, you will receive \$10 per call night on your account for this purpose, with a maximum amount of \$110 per month. The balance does NOT carry over at the end of each month.
6. Library: The Department of Pediatrics maintains a reference library at CMC in the residents' lounge on the 2nd floor. The library is available 24 hours a day, with ID badge access. Please re-shelve books and periodicals when done.

PICU Library: Books owned by the PCCM faculty are available for your use. Please ask the attending faculty member if you wish to borrow one of their books. Almost all journals are available online through UTSW though they are accessible at CMC. Reference books are kept in the Fellows' office and are always accessible.

Medical School Library is a comprehensive facility for borrowing materials including books, periodicals and audiovisual materials; it is located in building D, level 1.

- (a) Library card: Residents who get a UT Southwestern photo ID can use that as their library card.
- (b) Copier: You will have a Library Services Card - this is to be used at the library for copying work related material **only**. Please be judicious.
- (c) Computer Searches: Medline is available, as well as assisted searches. Speak to the Research Coordinators or Faculty and they will assist you in obtaining a search number and completing your search. **Computer searches from CMC**. Medline searches can be performed from CMC via the UTSW library icon found under the Citrix folder on most computers. Under the view menu, select toolbars, and make sure address bar is checked. Now you can head over to pubmed.com, and used the links/linkout tool in the right hand side of the page to access full text to most journals. You can also access this feature from outside the hospital via the mdchildren.com website (see below)

7. Computer Facilities: Personal computers are available in the PICU fellows' office. In addition, facilities for computer searches, as well as PCs and Macs are in the main UTSW Medical Center Library. The University computer center, on the 5th floor of the medical school provides comprehensive services with PCs, Apple and mainframe available. You will need to obtain an account number for the computer center. Check with the secretary if you need the department to obtain a number for your research needs. The computer center offers numerous courses (e.g., computers, programs, or accessories). Some are free, others cost \$50-\$150. Consulting is also done on a fee-for-service basis. The fellows' office is equipped with multiple PCs, and medline searches and review of E-mail can be performed from the fellows' office.

Both UT and CMC will provide userids and passwords to internal sites. UT's iAIM website allows you to access benefits and paycheck information. The web site is located at: <https://sws001.swmed.edu/iAim/login>. It also offers some standardized courses which all UT employees are mandated to take (i.e. HIPPA Training/Corporate Compliance). The CMC web site offers access to patient care sites. It allows you to access Emtek (ICU documentation system), Tecsys (lab data system), iSite (radiology /PACS system), the hospital formulary, paging system, and hospital intranet, email, Apollo (Echo reporting system), and the UT library (for research purposes) over the internet. To log in, go to mdchildrens.com, put in your password and userid and you will see a list of systems that you can get access to. You can request that the help desk add systems as needed to your mdchildrens site. This is important to allow you check on patients from home or elsewhere. It is also important to use this technique to gain access to the above mentioned systems from computers that do not have access to it (for example, not all computers in the ICUs have access to Apollo built it. You can log in via mdchildrens and gain access to Apollo on any computer from any computer). UT's help desk number is 214 648 7600. CMC's help desk number is 214 456 4636.

8. Meetings: Each fellow is allotted a maximum of \$1600.00 funding toward one national academic meeting in addition to meetings at which he/she is presenting research. All meetings must be from the approved meeting list and/or individual approval must be received from the Program Director. Except for the one meeting, fellows who are not presenting data are not guaranteed travel to a meeting. All meetings must be approved by the Program Director. PLEASE SEE THE RESEARCH SECTION OF THIS MANUAL FOR FURTHER DETAILS.

Reimbursement Requirements:

- (a) Travel arrangements ***must*** be made at least 4 weeks **IN ADVANCE** through Tammy. If a Travel Request is not turned in, reimbursement will not be possible. All airfares should be booked at the Texas state-negotiated travel rate, or at a less expensive rate.
- (b) Hotel, etc., arrangements must be pre-approved on the appropriate form (See Travel Request Memo in the Appendix). The medical school will pay in advance only the meeting registration fees and airfare. Hotel and food expenses will be reimbursed upon your return to Dallas, to the extent that total daily expenses do not exceed the allotted maximum per diem (see below). Turnaround time on reimbursement is usually- weeks after submission of documentation.
- (c) **ALL** receipts must be submitted on return from the meeting, including airline ticket, hotel, meals, taxi, and parking.

IF YOU DO NOT HAVE YOUR RECEIPTS FOR YOUR HOTEL, TAXI, AIRLINE, AND OTHER EXPENSES, YOU WILL NOT BE REIMBURSED FOR THAT AMOUNT.

- (d) Meals and lodging per diem is \$180 [\$15 for breakfast, \$20 for lunch and \$45 for dinner, for a total of \$80 cap on meals]. If you travel within the metroplex (Dallas/Ft. Worth) there is no meal or lodging allowance. Please share a hotel room if possible.
- (e) If you attend a conference away from the University, and you will be gone more than 6 hours, you must fill out a Travel Request. (Copies and forms are located in the Appendix)

You ***must*** have a TRAVEL REQUEST on file at least 4 weeks prior to the conference.

9. Vacation: Vacation allotment is the same as for a senior resident. Apply for vacation time early; submit your request in writing for approval by the chief fellow and/or Program Director. You cannot leave for vacation without prior approval.

- (a) Fellows are entitled to three weeks paid vacation per year.
- (b) These three weeks may be taken during No Call, Non-Clinical rotation.
- (c) Vacation time may be taken as three separate weeks throughout the year or all at once.
- (d) A vacation week is considered Monday, 8:00 AM-to-Monday, 8:00 AM.
- (e) A written statement of vacation time is **required** to be turned into Tammy's office at least one week before the vacation starting date.
- (f) Vacation time not used will not be compensated.

10. Pagers: Tammy will help you obtain a pager. CMC utilizes a share page system.

CMC pagers can be accessed four different ways:

a) Web based:

- i. Go to internet explorer from inside the hospital . On the left panel of the Children's intra-net site select paging directory. Follow the directions as provided.
- ii. Go to http://usamobility.com/send_a_message/index.html Enter the prefix 99900 followed by the 5 digit CMC pager number. Enter the message. This is useful for Friends/Family attempting to reach you from outside the hospital.

b) Phone based

Access the system directly as follows:

Dial 972-356-0099 - the phone will ring; you will get a tone.

Dial the 5-digit number of the pager you need to access - there will be 3 rings.

Dial the phone number you desire the party to call.

Dial the pound sign (#). Hang up.

c) If you do not know the pager number, dial "0" and ask the operator to page the desired party to your number.

d) Call the communication PAR in the communication center within the PICU (extension 2033) and ask them to page your desired party to your number.

11. Telephones:

At CMC: "9" = Outside line

CMC, PMH, St. Paul and the University all have similar extensions but different prefixes:

CMC: 456- **PMH:** 590- **St. Paul:** 879- **UTSWMC:** 648-

If you call from outside or page someone to 3J, use 456-2053. The main hospital number is 214-456-7000.

12. Check Cashing: Cashier at CMC (in the 1st floor lobby) can cash a local check with ID for up to \$50. There is also an automatic teller machine (ATM) in the lobby next to the cashier's office.
13. Entertainment discounts: Tickets for local movies (AMC and UA), Six Flags, Hurricane Harbor, etc. are available at CMC cashier and Medical School Activities Center.
14. Insurance: You will be provided health insurance, through UT Southwestern. This should be arranged during your orientation.
15. Transport Insurance: You are insured against Accidental Death and Dismemberment while on transport. An outline of this policy is at the end of this section "Business Travel Accident Coverage".
16. Risk Management: Fellows must complete 15 hours of risk management within the first 8 months of fellowship. See Policies, Procedures and Protocols for details.
17. Reading: It is crucial that you take a systematic approach to reading. Although textbooks are outdated even prior to their publication date, they can help provide a foundation to further your knowledge upon. Two useful texts in the pediatric critical care medicine are by: 1) Pediatric Critical Care by Bradley P. Fuhrman and Jerry J. Zimmerman (2006) or 2) Textbook of Pediatric Intensive Care by Mark C. Rogers (1996). For pediatric cardiac intensive care one useful text is Pediatric Cardiac Intensive Care by Anthony Chang (1998).
18. Inservice Exams: An inservice exam are provided to gauge your progress. One is provided by the SCCM (Society of Critical Care Medicine). This is meant to ready for the pediatric critical care board exam. All fellows are required to take the exam which takes place in mid March. Preparation for this exam is best done through systematic reading, and self assessment exercises.

II. CLINICAL RESPONSIBILITIES

II.1. How to keep your program director happy...part I

We are all involved in critical care medicine in order to serve children suffering from critical illness. Our primary goal is therefore to provide you with the core knowledge and skills necessary to be the best clinical pediatric intensivist possible. For this, we have designed a system in which, we hope, fellows gain requisite skills through exposure to a wide range of patients and disease processes, in a supervised environment that also encourages independent thinking. The goal of maximizing your exposure to the clinical environment (which is, as you will soon learn, an extremely fertile experiential one here) must be tempered with the reasoned (and now regulated) goal of maintaining a healthy balance between your work and personal life. For you, your patients, and yes, your program director, compliance with the guidelines for resident work hours while still maintaining sufficient clinical exposure will be an ongoing challenge, but we hope that the system outlined below will meet these goals. In short, the program is happy when, after three years, you are the best-trained intensivists in the country, while never working more than 80 hours in a week!

II.2 Fellows' responsibilities

It is our goal to train entering fellows to be excellent pediatric intensivist attendings, not excellent fellows. Functionally this means we expect the fellows to assume, from the day you start, primary responsibility for the well-being and excellent care of all our patients, and for the management of a large academic care team. While your level of independence and primary decision-making will vary from attending to attending, we all hope that we can supervise you in such a way that you are able to begin formulating your own care plans and “medical style” from day one. We expect you to learn to share your advanced knowledge and enthusiasm for critical care with the residents you will help train. We expect you to take active leadership roles in the direction of the care team. You will be the primary contact person for and manager of one of the busiest critical care services in the world. Remember what we said before, “remain calm”. Everyone in the division is here to support you through this and make it not only manageable but hopefully fun as well.

II.3.1 The PICU

This comprises the general medical ICU of Children's Dallas. It is comprised of 39 beds. The general PICU is composed of two floors: 12C and 11C. The 12th floor routinely admits patients for general medical conditions requiring an ICU. The 11th floor Trauma Unit is the critical care component of Texas' only Level I pediatric trauma referral center. It also provides post-operative care to a wide variety of post-surgical patients (including craniectomies, scoliosis repairs, etc.).

Two teams, team A and B, will share coverage of these two floors. A total of three fellows will be assigned for each month to the general PICU service. One fellow will be assigned to each team as his or her primary service for that month. Both Team A and Team B fellow's responsibilities will be identical, although the composition of the teams and the types of patients cared for will differ. Team A will be composed of 3rd year pediatric residents, and anesthesia/ER residents. It will manage patients with transplant associated conditions. Team B will be comprised of advanced practice nurse practitioners, and 2nd year pediatric residents. This service will manage trauma patients, and that require neurosurgical intervention. Both teams will admit general medical patients.

The fellows' responsibility on these teams includes participation in rounds, review of the patient's conditions several times throughout the day, and following up with the residents and making sure plans initiated on rounds are being completed. The role of the fellow is also to teach and educate the residents that you work alongside.

A third fellow will be assigned as the Float Team Fellow (or Team 1A). This fellow's role will be to carry the portable phone. The Float team fellow will be the primary contact person for admissions, consults and communication. He or she will be responsible for evaluating patients in the hospital for admission to the ICU, and discussing the findings with the Team A attending and the Operation team leader (see below). During rounds the Float team fellow will also be responsible for assisting with the management of the Team A and Team B's patients. The Float team fellow will hold the duty of "putting out fires" while the teams complete rounds on their patients. During the afternoon, when not relieving the post-call fellow from either Team A or B, the float team fellow will put together some didactics on the basics of ICU management for the residents. During the busy winter months, the Float team fellow and a third attending may form a third team. The fellow and the attending will manage the patients together without the assistance of a resident or NP, and remove some of the burden from the other two teams.

There will be a senior fellow assigned to the unit. Their role will be to assist the two (or three) other teams manage admissions, procedures, etc. They will also have the task of educating the junior fellows, especially during procedures. They will assist in making sure the Team A, B, and Float team

fellow leave by 5pm on a routine weekday. Finally, they will be available to assist the junior fellow on call at night with procedures, admissions, and complex patients.

Please Note: The roles for the team A, team B and float fellows are new for summer 2007, and are subject to variation as the year progresses.

The daily grind: A summary of your day is as follows:

7:00-30 am	AM checkout	Post-call fellow and with Team A, B and 1A fellows, with A and B Attendings when possible.
7:30 am	AM rounds	Medical Rounds (Team A)/Trauma Rounds-Medical (Team B)
3:00 pm	PM checkout	On-call fellow, senior fellow, residents; on-service fellows when possible

After checkout, you have time until rounds to assess patients, check x-rays, deal with problems, help the residents, etc. Rounds begin at 7:30 with X-ray rounds. The new admissions will be presented by the overnight resident and nurse practitioner. After the overnight individuals have been dismissed, routine medical rounds will occur. Team B will round with trauma team on the trauma patients first, before beginning general medical rounds. On rounds we hope you will feel comfortable in advancing your opinions and ideas on patient management. We all bring unique experiences to this program. Learn from us, and we can learn from you. Final checkout occurs at 3:00 PM and consists of the on-call fellow, senior fellow, the residents, and when possible, the on-service fellows. Complete, accurate, and efficient checkout is essential to good patient care, and you are expected to be familiar with all the patients on the service while on call. The answer "I'm just covering tonight, I don't know" is NEVER acceptable. If you are not on call, you should always leave by 5:00 PM in order to meet your work hour restrictions. *It the senior fellow's responsibility to get you out in a timely fashion (see the senior fellow section below).* He or she can do procedures, assist with patient transport, or consult on patients as needed.

Nurse practitioners: Nurse practitioners are a vital part of the Team B/Trauma Unit. Many of them have extensive knowledge about the trauma patients, derived from years of working with them. As a fellow, you have the opportunity to learn from their experience. At the same time, they can also benefit from your experiences on the other units, and from medical school and residency. The NPs are capable of doing procedures such as intubations, lines, and chest tubes, but first-year fellows get priority until their skills are well-honed.

II.3.2 CVICU

The Cardiac ICU is run cooperatively by the divisions of Cardiology, Critical Care, and Cardiothoracic Surgery. It provides care to pre- and post-operative cardiac patients, as well as patients with underlying cardiac disease presenting with medical problems. The CVICU has its own dedicated core of nurses, respiratory therapists, nurse practitioners, and support staff. The unit is managed by two attendings, the “CVICU” attending for the single-ventricle physiology and post-operative patients, and the “pre-cardiac” attending for the medical patients.

The daily grind: A summary of your day is as follows:

7:15am	Surgical rounds	Post-call fellow, cardiac surgeons, CVICU attending(s), on-service fellow
8:30 am	AM rounds	Pre-cardiac attending, CVICU attending
4:00 pm	PM checkout	On-call fellow, on-service fellow, NPs

You share primary patient coverage here with the NPs. Here also, you are also expected to be familiar with all of the patients on the team and to help direct and manage the entire team. Mornings begin with surgical rounds at 7:15 am in the X-ray room. After looking at the morning films, the surgical team, post-call fellow, and CVICU attending walk round. The post-call fellow presents significant overnight events and morning labs. Morning rounds begin at 8:30am with the CVICU and pre-cardiac attendings. During the day, you are expected to participate in the educational activities of the CVICU. Most important of these is the surgical conference on Wednesday afternoon and Cardiology Conference on Thursday mornings. During surgical conference, the patients scheduled for surgery in the upcoming week are presented, including echos and cath. “Problem” patients are also discussed. This is a great opportunity to learn about complex cardiac physiology and medical management. In the afternoons, the on-service fellow and day NPs check out to the on-call fellow and evening NP at 4:00 pm.

Nurse practitioners: The NPs are important members of the CVICU team. This program is newer than the one on the 11th floor, and it continues to grow and develop. As on the 11th floor, the NPs manage patients primarily, including such procedures as intubations, lines, and chest tubes.

II.3.3 Call

Call rooms: The 12th and 11th floor each have 3 call rooms. One is for the residents and/or PNP's, one is for the fellow on call, and one is for the attending/senior fellows. The code for each is 3,6,9. The CVICU call rooms are located on the 3rd floor, rm A318. The code is 5123.

Call schedules: The Chief Fellows distribute the call schedule for the entire year at the end of May. If changes are made to the call schedule, the fellow originally scheduled to take call is responsible for notifying the following parties of the change: Tammy Stanglin, the PICU PAR (ext. 2033), and the CMC operators (ext. 0).

Post-call: All fellows *must* leave by 12:00 pm when they are post-call. The post-call fellow on Team A and B will sign out to the other fellow on that floor. If the other fellow is busy, the senior fellow should come in to relieve the post-call fellow. The CVICU fellow either signs out to the other fellow or NPs.

II.3.4 Admissions

All in-house admissions are arranged by the Operational Team Leader (OTL x8595). Outside admissions are usually arranged by the Transfer Coordinator of the Transport service (x2926); however, if the initial call is to the PICU, these transfers may be arranged by the OTL and Team A attending. Assignment of patients to either the 12th, 11th, 11th floor NICU or 2nd floor is made by the OTL in collaboration with the Team A, CVICU, and/or NICU attendings. Admission of new patients may necessitate relocation of existing patients within the units. Consequently, it is important to promptly notify the OTL of any potential transfers or admissions. **The fellow is responsible for notifying the attending of every admission.**

Some admission rules of thumb:

Patient type\Location	12C (Team A/B See below)	11C (Team A/B See below)	CVICU	NICU
Medical	Any	Any	Underlying complex heart disease	Premature infants w/o cardiac issues
Surgical	General Surg; critical airways; routine T&A; routine trach	Neurosurgery; scoliosis repair; Cranial vault remodeling	Pre-op single-ventricle physiology; post-op cardiac surgery	Premature infants w/o cardiac issues

Team A will manage patients with transplant associated conditions. The Team B service will manage trauma patients, and neurosurgical intervention. Both teams will admit general medical patients.

II.3.5 Consults

PICU consults: The Float Team Fellow and on-call fellows are often consulted by the pediatric and subspecialty services on the floor or by the emergency room staff. Your responsibility is to (1) assess the patient, (2) determine whether or not they require immediate ICU transfer, and (3) recommend management, in discussion with the PICU attending. Please note that consults should not be made in lieu of calling a code! If you believe you need the assistance of a respiratory therapist, pharmacist, or critical care nurse, a code should be called. If the patient requires urgent transfer, you must communicate with the OTL and Team A attending immediately to arrange a bed space. You should remain with an unstable patient until the transfer is completed. Please always discuss your assessment and recommendations directly with the primary floor team's attending. As a consulting PICU physician, you are the face of our division – be mindful that other services are less familiar, and usually less comfortable, with critical illness than you are. If you are not transferring the patient immediately to the ICU, a consult note must be left in the chart and a copy of that note should be kept in the consult binder in the fellow's office. On occasion, the Parkland Burn Unit will ask for consultation from the PICU. These consults should be performed by the Team B Fellow and staffed by the Team B attending.

Subspecialty consults by the PICU: The need for a subspecialty consult should be discussed jointly by the attending, fellow, and PICU resident. (The exception being an emergent situation, such as a critical airway, etc.) The consultant on call for the day can be found online, or through the hospital switchboard, **unless another consultant has been specified by the attending.**

II.3.6 Transport

Patients are often transferred to CMC from outside hospitals. The CMC Transport team consists of nurses and respiratory therapists licensed for critical care. When the patient is being transported directly to the Team A attending guides their care. While on the Transport elective, you will have the opportunity to be part of that team. While on service, if you receive a call requesting transport, please refer the call to the attending physician.

II.3.7 Code Team

The Code system at CMC is designed to provide a comprehensive team for any critical medical situation in the hospital. As Float Team Fellow (1A) or on-call fellow, you are the physician leader of the Code Team. Other members of the Code Team include an ICU team leader, pharmacist, ER nurse, ICU respiratory therapist, chaplain, clinical technician, and several residents. You must respond to all codes promptly. The code pager is attached to a key that allows emergency use of the elevators. Your primary responsibility is to assume a leadership role at the code. As such, you must:

1. Identify yourself immediately to the people in the room.
2. Assess the patient, focusing on the A, B, C's.
3. Assign roles to the other team members in the room.
4. Communicate appropriately with the patient's primary attending and ICU attending
5. Stay calm, and keep a sense of order in the room!

ECMO: Patients with underlying cardiac disease, particularly with single-ventricle physiology, and certain other patients may qualify for emergent cannulation and ECMO. If you believe this to be a possibility, the PICU/CVICU attending and ECMO team need to be notified as soon as possible.

II.3.8 Senior fellows

Senior fellows are there to give advice, support, and an extra set of hands while you are on call. They start at 3:00pm on weekdays, and at 8 am on weekends, with exceptions: they should also make sure that the post-call fellow leaves by noon, and should be available as back-up if the ICU becomes busy. *It is the senior fellow's job to make sure the on-service fellows leave by 5:00pm.* This is an important part of meeting work-hours requirements. Thereafter, they should be available for procedures, patient transports (i.e. to radiology, etc.), floor consults, and more, if the on-call fellow is busy. The senior fellow usually goes home when the workload becomes manageable for one fellow. He or she is always available for questions, particularly if it seems to be a "sub-attending" type of question. Your senior fellow is also a great resource for teaching about procedures, ventilator management, and more. Take advantage of their experience! The senior fellow should be called in whenever the workload becomes overwhelming. You should also call the senior fellow in if a patient is to be put on ECMO. In addition the senior fellow should be present to facilitate checkout rounds with the evening residents who cover the PICU from 7pm-7am on Sunday – Thursday.

II.3.9 Attending notification

An important part of fellowship is learning to assess patients and make management decisions on your own. That being said, the job of the PICU attending is to guide you through this learning experience. And of course, your PICU attending is ultimately responsible for all the patients. Each attending varies in the amount of information they like to hear from their fellows. Still, there are some cases in which attending notification is mandatory:

1. Cardiac arrest
2. Shock or worsening hemodynamic instability
3. Respiratory failure requiring intubation and/or mechanical ventilation
4. Unplanned extubation
5. Coma or dramatic change in mental status
6. Individual organ failure
7. Prior to any procedure by the PICU Fellows/Residents/PNPs, and of any complications resulting from that procedure
8. Deterioration of pt status requiring escalation of support/care,
9. Prior to the use of non-standard therapies (heliox, NO)
10. Prior to the use of therapies with which the fellow is unfamiliar or inexperienced
11. Death.

II.4 Procedures

During your fellowship, you will have the chance to learn many procedures, including intubation, central and arterial lines, chest tube placement, and peritoneal drain placement, to name a few. As a first-year fellow, you should make it a priority to get as much experience doing these procedures as you can. Once you are comfortable with them, take that opportunity to teach and supervise residents and nurse practitioners.

In order to be board certified, fellows must keep procedure logs with the type of procedure, the medical record number, the age of the patient, and the date. This log will be critically important to establish hospital credentials (you will need to demonstrate the list of procedures at every future hospital your request privileges from.). With the Emtek computer system, we will be able to provide each fellow with a printout of their procedures performed. This can only be accomplished, however, if you document the procedure in the electronic medical record for each procedure you perform. Enter under → → to be included in your log.

New Joint Commission requirements have required that the “Universal Protocol” prior to all procedures be performed in the hospital. This nationwide standard has been developed prevent procedures performed in the wrong individual, the wrong site, or performing the wrong procedure. Although these errors generally occur where there is lack of continuity of care (i.e. operating rooms), the documentation of the Universal Protocol is closely tracked throughout the hospital. Prior to the start of any procedure the following MUST be performed: a) The patient must be identified by name, and MR b) the site and side of the procedure must be agreed upon c) the procedure to be performed must be agreed upon with the other staff in the room at the time (nursing staff, clinical technicians or other physicians) d) the patient must be positioned correctly for the procedure that will be performed e) any catheters or other implantable devices must be available at the bedside and verified prior to initiation of the procedure. The ultimate goal of this process is to prevent injury to the patient. If there is a disagreement in any of the Universal Protocol requirements, the procedure must be halted immediately. Documentation of the Universal Protocol must occur in the procedure note and must include the time that the Universal Protocol was discussed, and the *names* of the participants (i.e. J. Smith RN, and Tim Davidson, MD).

II.5 Resident supervision and evaluation

The team: Working with residents is an important part of your PICU training. You will work not only with pediatric residents of all levels of training, but also with ER residents, anesthesia residents, and anesthesia fellows, on a day-to-day basis. Each of these groups comes to the PICU with unique preparation and expectations. The senior pediatric resident is supposed to function as resident leader. This includes overseeing the interns. The residents are expected to manage the details of their patients' care, including admission orders, daily notes and orders, and communicating with consulting services. They should also keep you informed about their patients. This year, the way the pediatric residents staff the PICU is changing. There will be a "night-float" system whereby 2 senior residents cover the unit from 7 pm to 7 am, Sunday through Thursday nights. They will stay after their night shift until 9:00 am in order to round on and sign out the new overnight admissions. The Senior Fellow will be available with the on-call fellow to take 7 -8pm checkout rounds with the off-going resident team and the evening team.

Your role is as teacher, colleague, and supervisor. You are expected to be up-to-date on all of your team's patients, and to follow up on the daily plan. Many aspects of patient care, particularly for the most critically ill, tend to bypass the residents in favor of you, the fellow. When this is done appropriately, please communicate your actions and reasoning to that patient's resident. If questions asked of you are more appropriate for the resident, please direct them to the resident. These things allow the residents some autonomy and encourages them to be proactive in patient management. They also relieve you of the burden of directly managing every detail for every patient.

You do work closely with residents, and are best able to judge their abilities. As their supervisor, you should take it upon yourself to praise them for decisions well-made. By the same token, you should also speak to them directly about inappropriate management, work ethic, etc. If direct communication does not work, speak to the PICU attending. Ultimately, the PICU attendings evaluate the residents at the end of their rotation.

II.6 Moonlighting

There have been substantial changes in the moonlighting rules in the last several months. Currently, moonlighting may be performed only by second and third year fellows. All moonlighting requires a valid Texas medical license and arrangements for your own malpractice coverage. Due to the lengthy process involved in obtaining a Texas medical license, it would be wise for those considering this opportunity to apply early for their medical license in their first year. All moonlighting must be approved by the Program Director in advance. Moonlighting is not allowed during service months as all moonlighting time is included in the 80 work week established by the ACGME. **NO**

MOONLIGHTING is allowed during the first year of fellowship or for those with H1 Visa status. Any moonlighting in subsequent years will be approved only if satisfactory progress ... Please direct questions to Dr. Kernie.

II.7 "Pre-tending"

As a third-year fellow, you will spend four weeks "pre-tending," or acting as the Team B attending. You will run morning rounds and make all medical decisions in conjunction with the Team B attending. The Team B attending on-service supervises you, and remains ultimately responsible for the patients. This is a valuable chance to make attending-level decisions, while having someone more experienced readily available for backup. You will be able to choose which two weeks you want to do.

III. Structured Educational Activities

III.1 How to keep your program director happy...part II

While a majority of fellowship consists of relatively unstructured, self-directed learning, a certain amount of didactic teaching is necessary to prepare you for board exams and to give you the theoretical foundation for what you learn in the clinical arena. We have created a system of conferences and didactic lectures intended to provide this teaching. It is important that you attend as many of the scheduled conferences as possible, for your own education, courtesy to those who work hard to put together the presentations, and to satisfy Board training requirements. We expect each fellow to achieve at least 75% attendance for all the scheduled conferences. Attendance is kept, and Tammy maintains a database of the cumulative attendance of each fellow.

III.2 Pediatric Critical Care Medicine Conferences

All members of the division are expected to attend the Division Research Conferences, Physiology Conferences, Journal Clubs, Mortality Review and Quality Review Conferences. In addition, please make every effort to attend the Pediatric Faculty Research Conferences and Pediatric Grand Rounds. All Fellows in pediatrics are required to attend the Pediatric Department Fellows' Conferences (see below).

You are responsible for your conference dates. If conflicts arise, **YOU ARE RESPONSIBLE** for switching with someone else so the conference will take place. **If there is a switch, you must notify Tammy and Dr. Kernie** so the calendar will be corrected one week before the end of the month when the new calendar is created and final printed.

Sign-in sheets are provided for most conferences. It is important to sign-in to get credit for attendance, an important part of the ACGME requirements for your successful completion of fellowship.

Occasionally, research conferences will be a "Practice Presentation" (e.g. SPR Practice Presentation) or "Meeting Abstract Review." If you are presenting at the meeting, **be prepared to present your talk or poster** during the practice session. Most fellows will present their talk a few times prior to the meeting. If you go to a meeting, even if you are not presenting, you will be

expected to discuss 2-4 abstracts from that meeting with the group during the next research conference.

III.3. Fellows' Program

Newly created last year is the Fellows' Program, created by the Department of Pediatrics to cover department-wide educational needs of fellows. It is designed to allow fellows to meet and discuss common issues, present "work-in-progress" research, give and receive feedback on their research, cover core educational topics, and just get to know fellows in the Department who are not in your division. You will be expected to present your research once a year, beginning in your second year, at these conferences. They occur at 5 pm on Thursdays in the Pediatric Conference room at UT Southwestern (F3.112). You are expected to attend as many as possible, and attendance is recorded.

III.4. Basic Conference Schedule

The following is the simplified critical care conference schedule.

Mon	Tues	Wed	Thurs	Friday
		Grand Rounds (Moore Aud) 8a-9a		
		Noon Conf. (11 th floor Conf room) 12p-1p	Physiology Conf. (11 th floor Conf room) 12p-1p	
			Research Conf (11 th floor Conf room) 4-5p	
			Fellow Conf (Peds Conf Rm UTSW) 5-6p	

Conference Schedule while in your CVICU rotation. You should make all attempts to attend the regular critical care conferences in addition to ones stated below.

Mon	Tues	Wed	Thurs	Friday
			Cardiology Conf (3 rd Floor Conf rm) 7:30-8:30a	
Intake Rounds (3 rd Floor conf rm) 9am				
		Presurgical Conf (3 rd Floor Conf		

		rm) 5-6:30pm		
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III.5. Other potentially interesting educational opportunities

In addition to the departmental and division conferences, you are encouraged to take advantage of the multitude of educational conferences offered by the University, including the President’s Lecture Series and the University Lecture Series. There are also opportunities to become involved in structured coursework in basic sciences or clinical research. In particular, a new Clinical Research Program at UT is for individuals interested in obtaining training, certification, or even degrees in patient-oriented clinical research techniques. Please ask Dr. Kernie if you are interested in pursuing one of these opportunities.

IV. Research

IV.1 How to keep your program director happy...part III

For many trainees, fellowship represents the first and best opportunity to become actively and continuously involved in research for an extended period of time. Often it is also the first opportunity you have to be able to ask your own questions and organize your research efforts around YOUR ideas. As such, fellowship is a unique time in your career. Value it. You will have a majority of the time during your fellowship dedicated to pursuit of your research idea, and it is largely your responsibility to make sure the time is used wisely. Our goal is not to make every fellow we train a hard-core, academic, grant-obtaining, tenure-track bench-monkey. While the generation of at least a few bench- and RCT-monkeys would be wonderful, our primary goal is instead to assure that each fellow ends fellowship having initiated, structured, run, and summarized a hypothesis-driven research project or similar academic pursuit (see Scholarship Oversight Committee (SOC) guidelines in the appendix for specifics). Experiencing this sequence of events is critical for every trainee entering an academic field such as pediatric critical care. You will be amazed at how going through this process changes your ability to critically evaluate new studies and therapies and utilize evidence more effectively in your practice and scholarly activities. And for anyone continuing in research after fellowship, this is an amazing time to grow your ideas with close and expectant mentoring.

Incorporating the new ABP (American Board of Pediatrics) guidelines on scholarly activity in fellowship, we have attempted to structure a research program that functions much like a Ph.D. training program. You will organize a committee (called your “Scholarship Oversight Committee”) around your idea and mentor, begin and complete your project with the guidance of your mentor and many of the resources available here at UT and Children’s, meet with your committee periodically to assess your progress, and finally defend your project at the end of your fellowship, with the expectation of a resultant tangible “work product” (e.g., manuscript, grant, etc.; again, see SOC guidelines). We also expect EVERY fellow to apply for funding for their project, most commonly in the form of an intramural grant (CCRAC), usually during the second year. Your research can be in any field remotely related to pediatric critical care, from ethics to basic biochemistry, and can be clinical or basic in nature. The resources and potential sites and mentors you can choose from are nearly limitless here at UT and Children’s. Don’t be afraid to range far and wide in trying to find where you are most excited to work and feel like you “fit”. Also, don’t be afraid to try basic science even if you have never before touched a pipetman (a what??) or to try a clinical project if you have previously only worked with rats and found it

unsatisfying. Your director will be happy when you discover the excitement of discovery and self-directed scholarly activity, no matter what type of activity it is (and, of course, produce something to satisfy the ABP and let you sit for Boards...).

Current ABP requirements for documentation of the research requirement is the following: a) a peer-reviewed publication in which a fellow played a substantial role b) an in-depth manuscript describing a completed project c) a thesis or dissertation written in connection with the pursuit of an advanced degree d) An extramural grant application that has either been accepted or favorably reviewed e) A progress report for projects of exceptional complexity, such as a multi-year clinical trial.

IV.2 Forming and organizing your personal Scholarship Oversight Committee

Thanks to your benevolent and kind director, you will have a coordinator for your committee assigned to you before or very rapidly after you arrive at UT Southwestern. This coordinator will contact you to discuss what interests you might have, and potential ways to identify possible mentors. You will be expected to meet with the coordinator and identify a mentor within 3 months of beginning fellowship. Your committee should be organized by January of your first year (for specifics on the composition of the committee, see the SOC guidelines in the appendix), and will meet for the first time by March. You will then meet at least twice a year to assess your progress.

In order to help display what you have accomplished during these SOC meetings it is recommended that you keep a personal log book detailing the time and efforts spent in your scholarly activities. This information, once on paper, which help you and SOC determine what direction you need to continue to progress in. Finally, a paper log will help you recover lost data in hardware/computer failure.

IV.3 Formulating and pursuing your research interests

What follows here is intended to be a mini-guide to the process of formulating and implementing your research idea. A “Fellow’s Research Guide for Dummies”, if you will. Enjoy!

IV.3.1 The Idea

Journal Club, Research conferences, Physiology conferences, Pharmacology conferences, current medical literature and clinical material are all good sources of ideas for research questions. Make sure you choose an area that truly interests you. Research the recent literature on the topic, familiarizing

yourself with the direction of current research as well as the prevailing methods in the field. Talk to local experts. Usually there is no point in repeating a trial or experiment that has already been done unless you believe it was done incorrectly. In addition, grant applicants who are not well informed of current research in the field are not well received.

IV.3.2 The Literature Search

Medline is the on-line journal citation database. You can access via Pubmed.com (See library section in the orientation section of this manual). Most articles are available as full text over the internet or via the UTSW Library. Any article not available can be obtained through the inter-library document delivery system.

IV.3.3 The Question

The most essential step in the development of your research project is to devise a **testable hypothesis** which is focused, relevant, falsifiable, feasible and has addressed certain statistical issues.

Focus. A good hypothesis has one primary question with one predictor variable (i.e., an intervention), one outcome variable and can be tested with a single statistical test. The study population, variables and primary question should be clearly defined and stated in advance. Having more than one predictor or response variable (a complex hypothesis) can cloud your results. One simple hypothesis (one predictor, one outcome variable) is preferable.

While one can ask secondary questions, there should be one primary hypothesis around which development of the study plan focuses. Types of secondary questions are those with response variables different from those of the primary question (such as a cause-specific death and a specific non-fatal event) and those with the same response variable applied to different subgroups (such as stage of disease at entry into the trial)

Maintain a narrow scope - do not try to answer too many questions; it will only confound your results.

Relevant. Imagine all the possible outcomes and consider how each might contribute valuable knowledge. Either proving or disproving your hypothesis is important and interesting.

Falsifiable. Make sure your hypothesis is an authentic question. A falsifiable hypothesis makes claims that are testable and refutable. It is this quality which separates scientific questions from the metaphysical, thereby making them more productive.

Feasible. It will be most fulfilling (not to mention more productive) to plan a clearly defined project that can be completed within the span of your fellowship.

Make sure that there will be an adequate number of study subjects by analyzing the patient population prior to the study. The sample size should be determined during the design phase of the study.

Consider whether your project is feasible at this institution, including whether you have the technical expertise to carry out the project, or whether that expertise is available to you locally.

Determine if there is an easily measured variable that accurately measures the phenomenon of interest.

Statistical Issues. Specify how your hypothesis will be tested statistically and at what level of significance the null hypothesis will be rejected in favor of the alternative hypothesis.

Specify the magnitude of the association between the predictor and outcome variables you would like to be able to detect. Recent literature and pilot studies will guide you in this estimation.

The method of analysis and, most importantly, the sample size necessary to achieve the level of significance you desire, must all be predetermined.

It is a good idea to consult a statistician during the design phase of your study. When applying for a CCRAC grant, statistical help is provided by CMC prior to the submission from the office of clinical research at Children's.

IV.3.4 Picking a mentor

Talk to other fellows and faculty members about your interest and potential individuals within the division or even outside the division who may be reasonable to serve as your mentor. See the appendix for more information on the make-up of the Scholarship Oversight Committee.

IV.3.5 The Protocol

The protocol is the written plan of the study and should help organize the project. It is made up of the following general sections:

Hypothesis. This is the objective of the study; the question you will set out to answer.

Significance. Give the background to justify the study; why the question is important, what is currently known and what gap in knowledge the study will fill. State other study conclusions that enable you to logically form your hypothesis.

Design. Describe how the study will be carried out or the epidemiologic approach. Describe whether it will be an observational study (where the investigator observes and gathers data without altering events, i.e.; case-control), or an experiment, where the investigator manipulates the predictor variable (i.e., applies an intervention) and observes the effect on the outcome. Studies should have concurrent controls and be randomized whenever possible. The design/methods section should be so specific that it enables others to duplicate your study.

Subjects. Define the study subjects and how they will be selected. Inclusion and exclusion criteria must be detailed and informed consent, enrollment, and randomization procedures must be completely described.

Variables. List the data to be collected to prove the hypothesis, specifying predictor and outcome variables. Provide a detailed description and schedule of interventions and placebo and ascertainment of response variables.

Statistical Issues. Clearly state the magnitude of the association between the predictor and outcome variables, the acceptable level of significance, the size of the study sample, and the analytic approach.

Discuss your ideas with the appropriate advisors/collaborators and present them, even (especially) at their beginning stages, at Research Conference. This is a very good forum for assessing the feasibility of your project as well as the detection and resolution of confounding factors and other potential problems.

A good resource when designing a study is investigators already established in the field.

Revise, Revise, Revise, Revise, Revise, Revise, Revise, Revise. A good finished protocol never looks like the initial draft.

IV.3.6 Review Boards

All studies, even retrospective chart reviews, require approval from the Institutional Review Board (IRB) or the Institutional Animal Care and Research Advisory Committee (IACRAC). Submissions to the IRB received by the last Friday of the month will be reviewed at the next monthly meeting. Applications are available in the PICU Administration office or from the IRB. Approval is for one year, at the end of which you must report on your progress and apply for continuing review.

Only a brief summary of your project is necessary for IRB approval. Although the IRB form is a good protocol outline, it is possible to get IRB approval without thinking through all aspects of your project. A pilot study is the most effective arena for working out kinks in the protocol.

IV.3.7 Funding

Many of the issues that are important in designing successful research projects are also pertinent in acquiring their funding.

Research the available funding sources and select your most likely grant prospects. Information in this area is by no means centralized and compiling a list of potential funding sources can be tedious. The Office of Grants Management has a modest resource library and Jennifer Young is the grant specialist for Pediatrics. There are four main sources of funds: Federal grants, foundations, voluntary health organizations and corporations. Keep in mind that granting agencies have their own agendas; they will be more likely to fund projects which further their own goals or are in areas in which they have interest.

More often than not, however, the best source of information regarding funding will be the same advisors/collaborators who will aid you in developing your protocol; namely, those who are already in the field.

There are a few steps you can take that will increase your chances of getting funded.

Contact. Contact your potential funding sources prior to sending your proposal. Often a phone call is appropriate. Check with the Office of Grants Management before contacting any foundation to get information on the best approach. An initial contact has several benefits, including enabling you to bounce your idea off someone on the inside and obtain feedback. You can use this information to tailor

your proposal to the priorities of that agency, thereby increasing your chances of getting funded. Alternatively, negative feedback will save you the time of preparing a proposal for an agency which is unlikely to fund you.

Tailor. Tailor your proposal to each agency. Do not send the same proposal to more than one funding agency.

Try Again. If you receive a negative response, use the comments from the agency to revise your proposal, and then resubmit.

IV.3.8 The Study

Attend to small details.

Give copies of all protocols and authorizations to the appropriate research coordinator.

Place copies of the protocol and a step-by-step operations manual, along with consent form/randomization packets, in the research office.

Spread the word. Do in-servicing for nurses, RTs or anyone who may be involved, present at Research Conference. Heightened awareness will ensure that eligible patients are identified and enrolled in studies.

Plan where data will be kept.

Plan who will collect data or samples or perform evaluations.

Plan how samples will get to the laboratory, if applicable.

Plan who will obtain consent.

Analyze the Results. Involve the faculty and research mentors.

IV.3.9 Present and Publish!

Meeting Presentations, Abstracts, and Manuscripts

The key to a successful presentation is early preparation, feedback, and revision. Remember, when you present your work, your success or failure will reflect on the entire Section of Critical Care Medicine. We therefore insist that the following guidelines be followed.

1. No abstract should be submitted unless the faculty investigator has reviewed the abstract and has had time to make modifications. It is highly recommended that all authors be given an opportunity to review the material before it is submitted.
2. No manuscript should be submitted unless all the authors have reviewed the material and have had an opportunity to make comments and modifications.
3. Your poster or oral presentation should be ready in preliminary form **at least three weeks prior to the meeting**. The Research Coordinator will schedule multiple practice presentations prior to the meeting date. Note: most fellows modify their talks 3-10 times before it is in final form.
4. A database is maintained on the status of **all abstracts, manuscripts, IRB proposals, IACRAC proposals, and grants**. Tammy is currently responsible for this data base. Please submit a copy of any such document to her, and keep her updated frequently.

Research the field to determine which journal it is most appropriate to submit your manuscript to. Some journals will reject certain types of studies outright, demonstrating only that you have chosen the wrong journal. Tailor your article to the journal and its audience. Be sure to follow carefully the instructions for authors in the journal. Always write in the active voice. The title should reflect the content of the study. Your manuscript should consist of the following sections:

Introduction

Materials and Methods

Results

Discussion

Conclusion

Once submitted, your manuscript will be reviewed by either the editorial board or others in the field. You can request that certain people not be asked to review - such as your competitors. In addition, many journals now have statistical editors so be sure that your statistical analysis is sound.

The following is a list of standards your manuscript should meet (also look for these standards when evaluating other therapeutic studies). Clearly, these points should be noted during the design phase of the study.

(From: Reisch, et al. *Aid to the Evaluation of Therapeutic Studies*. Pediatrics 1989;84:815-827)

Purpose

- Title is consistent with purpose
- Statement of purpose given
- Outcome variables for therapeutic effects defined prior to study
- Magnitude of difference in outcome is specified prior to study
- Sources of support specified

Design

- Data collection planned prior to intervention; data collected prospectively under specified conditions
- Subjects selected prior to intervention and evaluated prospectively
- Carry-over or refractory effects avoided or considered in the design

Sample Size Determination

- Sample size determined by
 - a. predetermined number of subjects
 - b. sequential experimental design
 - c. independent monitoring committee
- Total number of subjects specified
- Adequate number of subjects ENROLLED to detect magnitude of difference

Subjects

- Entry criteria
 - a. Age of subjects given
 - b. Race of subjects given
 - c. Sex of subjects given
 - d. Socioeconomic status given
 - e. Disease/health status of subjects given
 - f. Contraindications for intervention
- Eligible subjects who refused to participate are described
- Subjects adequately described for all entry criteria
- Subjects selected for the study are suitable to question posed by investigator

Randomization and Stratification

- Randomization claimed and documented
- Stratification used prior to study entry or during analysis phase

Control

- Unmatched subjects with randomized intervention assignment, or
- Subjects as own control with intervention/placebo order randomized, or
- Matched by subject with intervention assignment randomized
- Random assignment method described

Procedures

- Informed consent
- Specify
 - a. Dosage
 - b. Time of day administered
 - c. Frequency
 - d. Time to complete intervention
 - e. Route (IV, IM, PO, etc.)
 - f. Presentation (Tablet, Syrup, etc.)
 - g. Indications for

1. Initiation of intervention
 2. Modification of intervention
 3. Discontinuation of intervention
- Subjects in different treatment groups appear to receive the same care other than that under investigation
 - Intervention reasonable and appropriate to answer question posed by investigator

Blinding

- Blinding claimed and documented and appears realistic
- Blinding of
 - a. investigators
 - b. caregivers
 - c. subjects and family

Subject Attrition

- Predefined procedures for excluding subjects after entry
- Specific procedures established to minimize loss of subjects from the study
- Subjects or records which were lost or dropped are described

Evaluation of Subjects and Intervention

- All important clinical information reported
- Laboratory and other measurements appear standardized and consistent
- Treatment compliance assessed
- Evaluation method described
- Prospective evaluation of important hazards or toxicity
- Cost-effectiveness discussed, if applicable

Presentation and Analysis of Data

- Clearly understandable text
- All comparisons involve same number of subjects or any discrepancy is explained
- Descriptive measures (SD, mean, range, etc.) identified for all important variables
- Computation errors or contradictions indicated

- Statistical tests used for comparisons involving important variables
- Statistical tests are
 - a. clearly identified
 - b. appropriately used
 - c. appropriately interpreted

Recommendations/Conclusions

- Recommendation for use of intervention should be based on a controlled, randomized, prospective study (if feasible); should be made only if convincing benefit is demonstrated and all important hazards assessed; should be applied to subjects and conditions similar to those in the study.

Contacts

Institutional Review Board (IRB)

Romelle Hase, 648-3060

B8.406, mail code 9007

Institutional Review Board for Animal Research

648-5550

J2.108, mail code 9107

Office of Grants Management

Tom Boettcher, 648-3644

NB Building, Floor, Room 318, mail code 9037

NB2.318

Academic Computing Services

648-3681

E1.401, mail code 9066

Deborah Town, RN

Clinical Research Coordinator

456-2253

APPENDIX



**DIVISION OF PEDIATRIC CRITICAL CARE MEDICINE
2007- 2008**

FACULTY

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Assistant Professor of Pediatrics

Cindy Darnell, MD

Assistant Professor of Pediatrics

Leslie Garner, MD

Assistant Professor of Pediatrics

Steven G. Kernie, MD

Assistant Professor of Pediatrics
Fellowship Program Director

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Assistant Professor of Pediatrics

Peter Luckett, MD

Associate Professor of Pediatrics
Director of Pulmonary Medicine

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Assistant Professor of Pediatrics, Cardiac Critical Care

Darryl Miles

Assistant Instructor of Pediatrics

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Professor of Pediatrics & Anesthesia
Director, Pediatric Nurse Practitioner Program

Julio Perez Fontan, MD

Professor of Pediatrics

Associate Dean for Pediatric Services & Program Development, UTSW
Sr. Vice President of Research & Interdisciplinary Programs, CMC

Maeve Sheehan, MD

Assistant Professor of Pediatrics

Paul W. Sheeran, MD

Assistant Professor of Pediatrics & Anesthesiology

Daniel Stromberg, MD
Medical Director, Cardiac Intensive Care Unit
Assistant Professor of Pediatrics, Cardiac Critical Care

James A. Thomas, MD
Chief, Critical Care Services
Director, Division of Pediatric Critical Care Medicine
Associate Professor of Pediatrics

Marita T. Thompson, MD
Medical Director of ECMO Service
Medical Director, Surgical/Trauma Intensive Care Unit
Assistant Professor of Pediatrics

Tia Tortoriello, MD
Assistant Professor of Pediatrics, Cardiac Critical Care

PICU FELLOWS

1st Year

Zaheer Gill, MD
Ashraf Resheidat, MD
Chris Todd, MD

2nd Year

Jeremy Affolter, MD
Tim Carroll, MD
Ben Olsson, DO
Tony Reid, MD
William Stigall, MD

3rd Year

Rangasamy Anand, MB
Chris Cunnyngnam, MD
Joshua Koch, MD – Chief Fellow
Laura Murphy, MD
Monique Robles, MD – Chief Fellow

ADMINISTRATIVE SUPPORT

Tammy Stanglin, Fellowship Support
Samantha Cavitt, Critical Care Support
Diana Geltner, Critical Care Support

Children's Medical Center of Dallas
PICU MANAGEMENT TEAM

Karen Cavazos, RN MBA CNAAC, BC
Sr. Director, Critical Care Services

Matt Chance, FACHE
Director of Operations, Critical Care Services

Curtis Stipe, MHA
Business Manager, Critical Care Services

Dawne Black-Wieber, BS RRT
Clinical Manager, ECMO and Advanced Therapies

Lisa N. Mason MHA, MBA, BSN, RNC
Clinical Manager, Neonatal Intensive Care

Jean Storey-Kupovics RN, BS
CVICU Clinical Manager

Suzanne Willner, RN, BSN
Clinical Manager, C12 PICU

Vicky Pierce, RN, BSN
Community Liaison

Important Contact Information

11th Charge RN	8598	ICU Operator	2033
12th Charge RN	8596	OR	2022
Anesthesia	5008	OTL	8595
Computer Support	4636	Pharmacy	7500
Fellow A2	8597	PNP	5422
Fellow B	8552	Radiology	6049
Fellow CVICU	8342	Radiology Call	8444
CVICU Pharmacist	5869	ECHO Scheduling	2327
CVICU Charge RN	8599	Transport	2926
NICU MD Phone	6891		

General Children's Phone Number: 214 456 7000

Children's Physicians Web site: Mdchildrens.com

Children's Webmail site: webmail.childrens.com

AMERICAN BOARD OF PEDIATRICS

Requirements for Certification in a Pediatric Subspecialty (updated January, 2004)

At the request of a number of Pediatric subspecialty program directors, the requirements for certification in a pediatric subspecialty are described to assist fellows in their training plans.

1. **Duration of Training:** All pediatric subspecialties require 3 years of fellowship training in the standard fellowship training.
2. **Composition of Training:** The training must meet the Program Requirements for Education developed by the Residency Review Committee for Pediatrics for the subspecialty.
3. **Verification of Training:** When an applicant applies for an examination, the program director is asked to complete a Verification of Competence Form for each fellow, assuring the ABP that the individual has met the requirements for application to the certifying examination. Components of the form include the actual dates of training, an overall assessment of clinical competence, a brief description of clinical training, and an assessment of research training and accomplishment.
4. **Certification in General Pediatrics:** In order to be accepted for a subspecialty certifying examination, a candidate must have a current certificate in general pediatrics from the ABP.
5. **Medical Licensure:** An applicant must have a valid (current), unrestricted license to practice medicine.
6. **Scholarly Activities:** Most questions arise from applicants about the requirement for meaningful accomplishment in research. This requirement has been recently revised to include several aspects of training to fulfill this requirement. All pediatric subspecialties require that a candidate and his/her program director supply evidence that this requirement has been met. Scholarly activities must include the following components:
 - a. Completion of a Core Curriculum – All subspecialty programs must include a core curriculum. This curriculum will provide skills that lead to an in-depth understanding of biostatistics, clinical and laboratory research methodology, study design, preparation of applications for funding and/or approval of clinical or research protocols, critical literature review, principles of evidence-based medicine, ethical principles involving clinical research, and the achievement of proficiency in teaching.
 - b. Scholarly activities –All fellows will be expected to engage in projects in which they develop hypotheses or in projects of substantive scholarly exploration and analysis that require critical thinking. These can include but are not limited to basic, clinical, or translational research, biomedicine, health services, quality improvement, bioethics, education, and public policy. Fellows must gather and analyze data, derive and defend conclusions, place conclusions in the context of what is known or not known about a specific area of inquiry, and present their work in oral and written form to their Scholarship Oversight Committee.

- c. Work Product of Scholarly Activity – Involvement in scholarly activities must result in the generation of a specific written “work product”
 - a peer-reviewed publication in which a fellow played a substantial role
 - an in-depth manuscript describing a completed project
 - a thesis or dissertation written in connection with the pursuit of an advanced degree
 - an extramural grant application that has either been accepted or favorably reviewed
 - a progress report for projects of exceptional complexity, such as a multi-year clinical trial

7. Scholarship Oversight Committee

Each fellow will have a committee consisting of at least 3 individuals, at least one of whom is based outside the subspecialty division; the fellowship program director may serve as a trainee’s mentor and participate in the activities of the oversight committee but should not be a standing member. This committee will:

- determine whether a specific activity is appropriate to meet the ABP guidelines for scholarly activity
- determine a course of preparation beyond the core fellowship curriculum to ensure successful completion of the project
- evaluate the fellow’s progress as related to scholarly activity
- meet with the fellow early in the training period and regularly thereafter
- require the fellow to present/defend the project related to his/her scholarly activity
- advise the program director on the fellow’s progress and assess whether the fellow has satisfactorily met the guidelines associated with the requirement for active participation in scholarly activities

Additional questions should be directed to Dr. James Stockman III at the American Board of Pediatrics, (919) 929-0461.

Responsibilities and Guidelines for Scholarship Oversight Committees

UTSW

Department of Pediatrics

Division of Pediatric Critical Care

As stated by the American Board of Pediatrics, the principal goal of fellowship training is the development of future academic pediatricians. Each fellowship program must therefore provide training and mentoring of fellows to foster this development and further that goal. To this end, the ABP has recently determined that the evaluation of the quality of the scholarly experience of fellows was best performed at the level of the training program, rather than at that of a national subcommittee. This idea followed from the realization that there were many worthy scholarly activities that would not result in a first-author, peer-reviewed publication, but that would still result in the satisfactory education of the fellow in academic pursuits. The mechanism created for the program-level evaluation is the Scholarship Oversight Committee, one of which is to be created for each trainee.

ABP Guidelines for “Scholarly Activity”

All of the activities listed below require active participation by the fellow and must be mentored

- Biomedical research (clinical or basic)
- Critical meta-analysis of the literature (one that would meet rigorous biostatistical scrutiny)
- Systematic review of clinical practice (consistent with the scope and rigor of a Cochrane review)
- Critical analysis of public policy relevant to the subspecialty
- Curriculum development project with an assessment component
- Thesis or dissertation written in connection with the pursuit of an advanced degree (e.g., MBA, MS, MA, etc.)

Any chosen activity above must also result in production of a satisfactory “work product” of the activity, which may include:

- A peer-reviewed publication in which the fellow played a substantial role
- An in-depth manuscript describing a completed project
- A thesis or dissertation, as described above
- An extramural grant application that has been accepted or favorably reviewed
- A progress report of activities completed as a part of a project of exceptional complexity, such as a multi-year or multi-center clinical trial

Any chosen activity must also begin in the first year and continue for the entire period of training.

Composition of Scholarship Oversight Committees

- Three or more individuals:
 - Fellow's primary mentor (who will serve as Committee Coordinator if within the Division of Pediatric Critical Care Medicine)
 - At least one faculty member based outside pediatric critical care medicine
 - At least one faculty member from within the division, but not the fellow's mentor (who will serve as Committee Coordinator if the fellow's primary mentor is NOT within the Division)

Note: the fellowship program director may serve as a trainee's mentor and participate in the activities of oversight committees, but cannot be a standing member

Specific Responsibilities of the Committee Coordinator

- Contact assigned trainee **as early as possible** during training (potentially and preferably before they arrive)
- Facilitate identification of potential primary mentors, based on specific interests of trainee
- Meet with trainee within 3 months of beginning of fellowship (by **October 1**, if beginning July 1) to discuss potential avenues of scholarly pursuit and identify a primary mentor
- Form and recruit for the trainee's Scholarship Oversight Committee within 6 months of the beginning of fellowship (by **January 1**)
- Organize first meeting of Scholarship Oversight Committee within 8 months of beginning fellowship (by **March 1**)
- Advise the program director on the progress of each of these responsibilities no later than **two weeks** after the above dates

General Responsibilities of the Scholarship Oversight Committee

- Determine whether a specific activity is appropriate to meet the ABP guidelines for scholarly activity
- Determine a course of preparation beyond the core fellowship curriculum to ensure successful completion of the project
- Evaluate the fellow's progress as related to scholarly activity
- Meet with the fellow early in the training period and regularly thereafter
- Require the fellow to present / defend the project related to his / her scholarly activity
- Advise the program director on the fellow's progress and assess whether the fellow has satisfactorily met the guidelines associated with the requirement for active participation in scholarly activities

Specific Responsibilities of the Scholarship Oversight Committee

- Hold first meeting to evaluate and discuss trainee's presentation of potential scholarly activity within 8 months of beginning of training (**March 1**)
- Meet with trainee once more during last month of first year of fellowship (June)
- Meet with trainee in **November-December and May-June of second year** of fellowship for progress reports
- Meet with trainee in **November-December of third year** of fellowship for a progress report
- Meet with trainee in final months of fellowship (April-June) for presentation / defense of scholarly activity performed during fellowship
- Evaluate / deliver feedback on progress in scholarly activity and submit report of trainee's progress to Program Director within two weeks of each meeting of Committee
- Evaluate / deliver feedback on work product of scholarly activity and Summary of Scholarly Activity (see below)
- Deliver final report on trainee's progress and advise Program Director whether the fellow has satisfactorily met the above guidelines

Specific Responsibilities of the Training Program Director

- Assistance in the identification of potential mentors for incoming fellows within three months of beginning the training program (by **October 1**)
- Facilitate contact between mentors and fellows during that time
- Facilitation in and assurance of creation of Scholarship Oversight Committees for trainees within 6 months of beginning training (**January 1**)
- Verification to the ABP of the successful completion of training
- Facilitation of each trainee's submission to the ABP of a comprehensive document describing the scholarly activity that includes a description of the fellow's role in each aspect of the activity and how the scholarly activity relates to the trainee's own career development plan ("Summary of Scholarly Activity")
- Facilitation of submission to the ABP of the actual "work product" of the scholarly activity
- Coordination of signature of trainee, Program Director, and all members of the Oversight Committee on the above documents to be submitted to the ABP
- Coordinate review of the Program's structure relating to scholarly activity requirements by the RRC and other external sources

Timeline of Important Deadlines for Scholarly Activity Progress

Year	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June
1	Contact Committee Coordinator		Meet with Committee Coordinator by Oct 1			Recruit and form committee by Jan 1		Hold first meeting of committee by March 1				Hold second meeting of committee by June 30
2						Meet with committee Nov-Dec (by Dec 31)		Submit CCRAC application				Meet with committee in May-June (by June 30)
3						Meet with committee Nov-Dec (by Dec 31)					Presentati on / defense of research (Apr-June)	Submit "work product" of research

Schedule of Potentially Interesting National Meetings

Meeting	Abstract Deadline	Conf. Date
Society for Critical Care Medicine	9/5/07	2/6-2/8/2008
American Pediatric Society / Society for Pediatric Research	12/4/07	5/2-5/6/2008
Pediatric Critical Care Colloquium	?	2/20-2/23/2008
Experimental Biology	12/07	4/5-4/9/2008
American Thoracic Society	10/05	5/16-5/21/2008
American Assoc. of Pediatrics	4/08	9/2008

A good resource for relevant meetings is: http://pedscm.org/organizations_meetings.php

**CHILDREN'S MEDICAL CENTER OF DALLAS
CRITICAL CARE SERVICES**

CODE OF CONDUCT

I. PURPOSE

To define a code of conduct for all members of Critical Care Services.

II. POLICY

All individuals within Children's Medical Center will be treated courteously, respectfully, and with dignity. To that end, Critical Care Services requires all physicians, employees, practitioners, or other individuals to conduct themselves in a professional and cooperative manner.

If employees fail to conduct themselves in the required manner, the matter will be addressed through Children's Human Resource Policies.

If medical/dental staff or allied health staff fail to conduct themselves appropriately, the matter will be addressed in accordance with Medical Staff By Laws.

III. RESPONSIBILITY

All Critical Care Services Staff, All Medical Staff, All Dental Staff, All Allied Health Staff

IV. GUIDELINES

A. Definition of unacceptable or disruptive behaviors:

Unacceptable conduct includes, but is not limited to, the following behaviors:

1. Attacks leveled at physicians, parents, patients, volunteers, visitors, or hospital staff which are personal, irrelevant, and go beyond the bounds of professional comment.
2. Impertinent or inappropriate comments written in patient medical records or other official documents impugning the quality of care in the hospital or attacking particular physicians, nurses, or hospital policies.
3. Sexual harassment of a physician, patient, parent, volunteer, visitor, or hospital employee. Refer to Human Resources Policy and Procedure No. 3.06, Sexual Harassment.
4. Throwing of equipment or supplies at persons or objects or indiscriminately destroying such items from further use.

5. Striking a physician, parent, visitor, hospital employee, or patient with any object, thrown object, or with one's person.
6. Non-constructive criticism addressed to its recipient in such a way as to intimidate, undermine confidence, belittle, or to impute stupidity or incompetence.
7. Refusal to accept or follow official directions, policies, or assignments of the Medical/Dental Staff, refusal to participate in committee or divisional affairs on anything but his or her own terms, or to do so in a disruptive manner.
8. Deliberately damaging personal property of physicians, hospital employees, patients or parents.

B. Documentation:

Documentation of disruptive conduct is critical since it is ordinarily not only one incident that justifies disciplinary action, but rather a pattern of conduct. The documentation shall include:

1. The date and time of the questionable behavior.
2. The name of the patient, if the behavior affected or involved a patient in any way.
3. The circumstances which precipitated the situation.
4. A description of the questionable behavior limited to factual, objective language, as much as possible.
5. The consequences, if any, of the disruptive behavior as it relates to patient care or hospital operations.
6. Records of any action taken to remedy the situation including time, place, action, and name(s) of those intervening.

C. Report:

Any physician, employee, patient, or visitor may report potentially disruptive conduct. A report of disruptive behavior shall be submitted to the Chief of Critical Care Services or the Nursing Director, and then processed.