

PEDIATRIC EMERGENCY MEDICINE
FELLOWSHIP PROGRAM
Children's Hospitals and Clinics of
Minnesota &
Institute of Medical Education,
Regions Hospital



Welcome to PEM Fellowship!

We are glad you are visiting the Pediatric Emergency Medicine fellowship training program at Children's Hospitals and Clinics of Minnesota. The enclosed information should help acquaint you with our program. Interviewing for fellowship positions is an exciting experience. Your visit to Minneapolis-St. Paul should be enjoyable and informative.

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History of the Program

PEM fellowship at the Children's Hospitals and Clinics of MN has been active since late 1980's as separate programs at St. Paul and Minneapolis. In 1995, the programs combined and became a 3 year fellowship program sponsored through department of Pediatrics at the University of Minnesota. The last ACGME Residency Review Committee visit was in 2009 and the program received continued full accreditation.

To add a new dimension to the program and compliment recent administrative changes, the PEM fellowship applied for change of sponsorship. ACGME has approved the fellowship program sponsored through emergency medicine at Region's Hospital, Health Partner's Institute of Medical Education. The new program goes into effect with the current fellowship match and starts in July 2011.

Emergency Department

Emergency Department at the Children's Hospitals and Clinics of MN is staffed by thirty-five PEM physicians, twenty pediatric nurse practitioners and four trauma service physician assistants/nurse practitioners. They cover the two emergency departments at Minneapolis and St Paul campus where **90,000 patients** were seen in 2009. Children's ED physicians provide outreach at Woodwind's Hospital ED in Eastern suburb and 212 Hospital ED (opens 2/2011) in Western suburb.

Children's is currently a designated level 3 trauma center and recently received 17 million dollar grant from United Health Care to become a level 1 trauma center.

Region's Hospital is designated level 1 pediatric trauma center and training site for all adult ED, EMS and trauma rotation for PEM fellows.





Emergency Department at Minneapolis campus is brand new a state of the art facility with 25 patient rooms, resuscitation bays, safe rooms, designated decontamination bay, PACS radiology viewing monitors, POCT labs, conference room and additional two trauma resuscitation rooms (under construction), The St. Paul Campus ED is currently under renovation with similar capacity.

ED is staffed by ED physicians, nurses, PNPs, PEM fellows, EM, pediatric and Family practice residents. There are pharmacists, EMTs and Child life specialists in the ED to help with procedures. Children's ED offers a suture nurse program where some ED nurses undergo extensive training with our fellows and residents to master suturing skills.

The Ortho room is equipped with **C-arm** which minimizes radiation exposure and easy accessibility for fracture reductions in the Department. **Sonosite Turbo M** is also in the resuscitation room but easily portable to any patient room to aid vascular access, Abscess localization, FAST exam etc.

The Emergency Department also runs the **Simulation Program** and has the state of the mobile simulation unit for outreach and multiple hi-fidelity mannequins for in-situ multi-disciplinary mock codes. This serves as a great teaching tool as well as an assessment tool for various levels of providers. **Trauma research coordinator** at the Children's Research and Sponsored programs and ED Research Director are available and actively involved with research projects in the Department. (see appendix of Research projects completed by PEM Fellows)

Children's Hospitals and Clinics of Minnesota

Children's Hospitals and Clinics of Minnesota serves the special health needs of children and their families from the Upper Midwest. We are dedicated to improving children's health and well-being by providing high-quality, family-centered pediatric care and services, advancing our efforts through research and education. The Children's system has 332 inpatient beds including 120 med-surg, 169 PICU/NICU/ICC and 43 intermediate care beds. Children's of Minnesota is independent and not-for-profit, offering integrated medical and surgical pediatric care at its two hospitals in St. Paul and Minneapolis. We are one of the largest pediatric health care organizations in the United States and the only Minnesota hospital system to provide comprehensive care exclusively to children.

Fast facts 2009 data

Inpatient admissions 13, 877

Average number of children hospitalized per day 239.8

Total number of staffed beds 332

Inpatient surgeries 4, 046

Outpatient surgeries 15, 708

Emergency department visits 90, 963

Outpatient clinic visits 137, 853

Home care visits 8, 031

Employees 4, 336

Professional staff 1, 679

Volunteers 1, 523

Recognized for pediatric excellence

- In 2009, for the third consecutive year, U.S. News & World Report ranked Children's Hospitals of Minnesota among America's best pediatric hospitals.
- Children's of Minnesota was the first hospital system in the Twin Cities and one of only 33 pediatric hospitals nationwide to achieve the prestigious Magnet designation, awarded by the American Nurses Credentialing Center for nursing excellence.
- Children's of Minnesota is one of only eight pediatric hospitals in the country to receive the 2009 Leapfrog Top Hospitals Award for delivering care that is among the best in the nation, while also attaining the highest levels of efficiency.

Services and Specialties

Emergency – Children’s emergency department is the sixth busiest in the nation, caring for pediatric patients from time of injury through rehabilitation, with the expertise to treat a wide range of trauma cases in facilities that cater exclusively to the needs of children.

Neonatal intensive care – Children’s neonatal program is the nation’s fourth largest, with more than 1,900 admissions annually and outcomes among the best in the world. It has the region’s largest high-risk neonatal referral center, and cares for nearly three-fourths of all neonatal infants who undergo surgery at metro-area hospitals.

Cardiovascular – Children’s cardiovascular program, one of the region’s largest, works to improve cardiovascular health for thousands of children through early diagnosis and intervention, less-invasive treatment and breakthroughs in new methods of care as children mature into adults. The program’s treatment results rank consistently among the best in the nation.

Hematology and oncology – The hematology/oncology program at Children’s is the largest in the Upper Midwest, with treatment outcomes that year after year rank it as one of the top 10 programs in the U.S.

Surgery – Children’s performs the region’s largest number of pediatric surgeries – about 24,000 procedures annually – on fetuses, newborns, children and young adults. Surgical treatment results place Children’s among the top U.S. hospitals in pediatric surgical care.

Integrative medicine – Children’s has the largest, longest-running pediatric, clinical integrative medicine program in North America. It combines the best of complementary and conventional medical therapies to care for children with chronic illness, acute and chronic pain, complex bio-behavioral problems, and emotional challenges.

Pain and palliative – One of the largest programs of its kind in North America, Children’s pain and palliative care team combines state-of-the-art pharmacology, physical therapy and integrative therapies to alleviate pain in pediatric patients at home, in the clinic or at inpatient units.

Cystic fibrosis – Children’s provides a continuum of care through coordinated inpatient and outpatient services from diagnosis through long-term follow-up. The National Cystic Fibrosis Registry ranks Children’s as among the top 10 programs nationally in key outcomes measured.

Epilepsy – Children’s pediatric epilepsy unit specializes in treatment and support for children with seizure disorders from birth to 21 years of age, providing diagnosis, medical and surgical treatment, education, as well as psychological, neuropsychological and support services.

Fellowship Overview

The fellowship is intended for physicians to acquire particular expertise and skills in clinical practice, teaching, investigative research and administrative functions related to the field of pediatric emergency medicine. The clinical information and skills acquired during residency training will be sharpened and focused as the fellow gains new knowledge and experience pertinent to the emergency management of seriously ill and injured children. The fellow will participate in teaching of both medical and lay personnel on topics related to pediatric emergency medicine in a variety of formats. An understanding of clinical research will be fostered through course study in research design and the development and execution of a research project. In addition, exposure to the administrative aspects of managing an emergency department will be afforded the fellow during the years of training.

Patient Data at three training sites

	Primary Clinical site		Site 2		Site 3	
	<i>Minneapolis Children's</i>		<i>St. Paul Children's</i>		<i>Regions Hospital</i>	
TOTAL # ED Patient visits (include urgent care/fast track if part of the ED)	45,527		45,472		76,709	
Total # of ED patients < 21 years (include urgent care/fast track if part of the ED)	45,527		45,472		10,350	
TOTAL Number of Pediatric and adult EM patients by Clinical Condition. If the site(s) sees both children and adults in the ED, enter data in each column.	Peds < 21 yrs	Adult ≥ 21 yrs	Peds < 21 yrs	Adult ≥ 21 yrs	Peds < 21 yrs	Adult ≥ 21 yrs
a) Trauma	5,297	12	6,621	5	176	1,168
b) Surgical (non-trauma)	1,296	3	1012	1	159	1,394
c) Medical	38,280	197	37,281	37	9,062	45,825
d) Obstetrical/Gynecological	134	6	144	5	475	1,279
e) Psychiatric	290	12	366	0	478	4,693
Percentage of patients hospitalized following treatment (excluding pediatric ED observation beds)	12.14%	6.67%	9.24%	6.82%	6.77%	25.38%

Fellowship schedule

Block Diagram for Pediatric Trained Graduates

FIRST YEAR BLOCK DIAGRAM

Month	1	2	3	4	5	6	7	8	9	10	11	12
Experience or rotations	*PED (Pediatric ED) 100%C Hosp1	*Research 100%R Hosp1	*Sedation/Anesthesia 100%C Hosp1, 2	*PED 100%C Hosp1	*PED 100%C Hosp1	*Adult ED 100%C Hosp3	*PICU 100%C Hosp1	*PED 100%C Hosp2	*PED 100%C Hosp2	*PED 100%C Hosp2	*Research 100%R Hosp1	Vacation
Duty Hours	40/10*	40*	40/8*	40/10*	40/10*	48/12*	40/10*	40/10*	40/10*	40/10*	40*	

SECOND YEAR BLOCK DIAGRAM

Month	1	2	3	4	5	6	7	8	9	10	11	12
Experience or rotations	*PED 100%C Hosp1	*Adult ED 100%C Hosp3	*PED 100%C Hosp1	*PED 100%C Hosp1	*Research 100%R Hosp1	*Adult ED Toxicology/EMS 100%C Hosp3	*PED 100%C Hosp2	*PED 100%C Hosp2	*Research 100%R Hosp1	*Research 100%R Hosp1	*PED 100%C Hosp2	Vacation
Duty Hours	40/10*	48/12*	40/10*	40/10*	40*	48/10*	40/10*	40/10*	40*	40*	40/10*	

THIRD YEAR BLOCK DIAGRAM

Month	1	2	3	4	5	6	7	8	9	10	11	12
Experience or rotations	*PED 100%C Hosp1	*PED 100%C Hosp1	*Adult ED/SICU-Trauma Hosp3	*Admin QI project/Research 50%R Hosp2	*PED 100%C Hosp1	*PED 100%C Hosp2	*Research 100%R Hosp1, 2	*Research 100%R Hosp1, 2	*Research 100%R Hosp1, 2	*PED 100%C Hosp2	*PED 100%C Hosp2	Vacation
Duty Hours	40/10*	40/10*	48/12*	40/8*	40/10*	40/10*	40*	40*	40*	40/10*	40/10*	

Total number of clinical months 24

Total number of research months 8.5

Total number of administrative months 0.5

Block Diagram for Emergency Medicine Trained Graduates

FIRST YEAR BLOCK DIAGRAM

Month	1	2	3	4	5	6	7	8	9	10	11	12
Experience or rotations	*PEM 100%C Hosp1	*PICU 100% C Hosp1	*PEM 100%C Hosp1	*NICU/DR 100%C Hosp1	*PEM 100%C Hosp2	*Peds inpatient 100%C Hosp1	*PEM 100%C Hosp2	*RES 100%R Hosp1, 2	*PEM 100%C Hosp1	*ANESTHESIA/ SEDATION 100%C Hosp1	*PEM 100%C Hosp2	VAC
Duty Hours	40/10*	40/10*	40/10*	60/12*	40/10*	60/12*	40/10*	40/8*	40/10*	40/8*	40/10*	

SECOND YEAR BLOCK DIAGRAM

Month	1	2	3	4	5	6	7	8	9	10	11	12
Experience or rotations	*PEM 100%C Hosp1	*RAIDIOLOGY/CHILD ABUSE 100% C Hosp2	*PEM 100%C Hosp1	*RES 100%R Hosp1	*PEM 100%C Hosp2	*RES 100%R Hosp1	*PEM 100%C Hosp2	*Outpatient peds clinic /ENT, Cardiology 100%C Hosp2	*PEM 100%C Hosp2	*RES 100%R Hosp1	*PEM 100%C Hosp1	VAC
Duty Hours	40/10*	40/8*	40/10*	40/8*	40/10*	40/8*	40/10*	40/8*	40/10*	40/8*	40/10*	

Total number of clinical months 18

Total number of research months 4

Fellowship Curriculum



(current fellows: **Jeff Dahleen, Funmi Salami, Jen Longo, Tom Skrypek,**
missing **Jen Halverson**)

Research / Scholarly Activities

All fellows attend EMBRS (Emergency Medicine Basic research Skills) workshop conducted by the American College of Emergency Physicians (ACEP). Material pertinent to biostatistics, power calculation, epidemiology and research design is covered extensively. It provides background for performing and reviewing clinical research. Grant writing is integral part of the workshop. Fellows will be expected to design and implement a research project during their three-year fellowship. We expect that fellows will submit their completed research projects to a national meeting for presentation, and if accepted will be supported by our division to present at the conference. Each fellow will have a scholarship oversight committee (SOC) with appropriate expertise in scholarly research endeavors; the SOC will be appointed during the first quarter of fellowship. The SOC will sign off on the work-product of the scholarly activity.

Children's Fellows' Research

Principal Investigator	Title	Brief Description
Halverson, Jennifer	Appendicitis in children 5 and under: a 10 year retrospective review	Retrospective chart review Description of the signs, symptoms, laboratory markers and complications are most commonly seen in young children with appendicitis
Dahlen, Jeff	Outcomes of Children with Isolated Head Trauma and their Pediatric Trauma Score	Retrospective chart review Evaluation of the relationship between the Pediatric Trauma Score and intentional vs. accidental head traumas
Longo, Jennifer	Clinical Adherence with CDC Guidelines during the Influenza H1N1 Pandemic	Retrospective analysis of the clinical adherence to CDC H1N1 guidelines
Longo, Jennifer	Influenza H1N1: The outpatient clinical course and what happens with Tamiflu	Prospective study Assessment of adherence to Tamiflu treatment and duration of symptoms
Skrypek, Thomas	Minnesota Emergency Research for Children: Epidemiology of a Regional Emergency Research Network	Description of the epidemiological information about children presenting to emergency departments in Minnesota
Skrypek, Thomas	Adjunctive Oral Analgesia for Laceration Repair: Assessing Pain in a Pediatric Emergency Department	Prospective grant funded study Evaluation of pain scores with the addition of ibuprofen or oxycodone to LET topical anesthetic during facial/scalp laceration repair
Jha, Vaishali	Use of High Fidelity Simulation Training for Resuscitative Care Performance Improvement in Pediatric Emergency Physicians	Prospective study Evaluation of competency scores for a group receiving both high-fidelity simulation training and audiovisual presentations compared to the scores for a group receiving only audiovisual presentations
Jha, Vaishali	Do the results of UA, serum WBC and CSF protein and glucose alter the first 48 hours of management of febrile neonates?	Retrospective chart review Assessment of the impact of the results of UA, serum WBC, CSF protein and glucose on the management of febrile infants

Nadler, Opher	How Well Does the Serum Bicarbonate Concentration Predict the Venous pH in Children with Diabetic Ketoacidosis	Retrospective chart review Determination of whether serum bicarbonate concentration is correlated with, and can accurately predict, venous pH in the evaluation of diabetic ketoacidosis (DKA)
Schnellinger, Mark	Animated Video vs. Pamphlet: Comparing the Success of Educating Parents About Proper Antibiotic Use	Prospective grant funded study Evaluation of the utility of an educational dvd about antibiotic use
Schnellinger, Mark	Are Serial Brain Imaging Scans Required for Children Who Have Suffered Acute Intracranial Injury Secondary to Blunt Head Trauma?	Retrospective chart review looking at change in management based on repeated head imaging

Educational Conferences

Fellowship educational conferences are held on first Thursday, second Tuesday and third Wednesday of every month. The format will vary week-to-week but will include: didactic lecture presentations from faculty within the department and faculty from other disciplines on topics pertinent to pediatric emergency medicine; review of sections of a major textbook of pediatric emergency medicine; case conference presentations; radiology conferences, Morbidity and Mortality Conferences, research conferences; and critical review of contemporary articles taken from a variety of academic journals. As they become more senior, fellows will be expected to coordinate conferences, arrange speakers, and present material themselves. This will allow some administrative and teaching experience. In addition, fellows will be expected to attend and participate in ACGME core competence lecture series and core curriculum lectures. Meetings are at the two Children's Hospitals and Region's Hospital.

Teaching Responsibilities

Fellows will prepare and present instructional lectures to students, residents, ED staff physicians and other medical personnel (e.g., emergency medical services personnel) on topics related to pediatric emergency medicine. The department offers many additional opportunities to teach, including Pediatric Advanced Life Support classes, Suture/Wound Management and Splinting workshops, Mock Codes and Sim Lab courses. Teaching activities will be monitored and periodic critique/feedback will be provided.

Administrative Experience

Fellows will participate in inter- and intra-departmental meetings as they relate to the Emergency Department. As part of this process, policies and procedures will be developed and reviewed. Teaching conferences will incorporate administrative topics such as billing, quality assurance, risk management, disaster planning, and personnel management issues. Fellows will perform quality assurance activities as appropriate within the scope of the department. Each fellow will participate in a QI project under the direction of fellowship director or the medical directors.

CME/Stipends

CME: Fellows are given a CME allowance of \$1500 per year. The EMBRS course, PALS provider/instructor course, ATLS, PEM fellow's conference, SITE fees are paid by the department. When Fellows present at a National meeting, the cost is also reimbursed by the department.

Stipends

Level Stipends (7/1/2010-2011)

PGY-1 \$48,058

PGY-2 \$49,538

PGY-3 \$51,244

PGY-4 \$54,926

PGY-5 \$58,048

Other benefits details are at

<http://www.imehealthpartners.com/ResidencyPrograms.shtml>

http://www.imehealthpartners.com/pdffiles/2010%20Residents%20Benefits%20Brochure%20_5_.pdf

Innovations in Education

Evidence Based
Medicine/Journal club

Ultrasound guided
procedures

Simulation

EMBRs

International Health

PALS instructors

EMSC/Advocacy

Disaster Preparedness

Institute for Health care
Improvement

LEAN workshops

Toxicology fellowship

EMS fellowship

Living in Twin Cities



<http://www.twincitieslivingmag.com/>

Minnesota Facts and Trivia

1. Minnesotan baseball commentator Halsey Hal was the first to say 'Holy Cow' during a baseball broadcast.
2. The Mall of America in Bloomington is the size of 78 football fields --- 9.5 million square feet.
3. Minnesota Inventions: Masking and Scotch tape, Wheaties cereal, Bisquick, HMOs, the bundt pan, Aveda beauty products, and Green Giant vegetables
4. The St. Lawrence Seaway opened in 1959 allowing oceangoing ships to reach Duluth.
5. Minneapolis is home to the oldest continuously running theater (Old Log Theater) and the largest dinner theater (Chanhassan Dinner Theater) in the country.
6. The original name of the settlement that became St. Paul was Pig's Eye. Named for the French-Canadian whiskey trader, Pierre "Pig's Eye" Parrant, who had led squatters to the settlement.
7. The world's largest pelican stands at the base of the Mill Pond dam on the Pelican River, right in downtown Pelican Rapids. The 15 1/2 feet tall concrete statue was built in 1957.
8. The Minneapolis Sculpture Garden is the largest urban sculpture garden in the country.
9. The Guthrie Theater is the largest regional playhouse in the country.
10. Minneapolis' famed skyway system connecting 52 blocks (nearly five miles) of downtown makes it possible to live, eat, work and shop without going outside.

11. Minneapolis has more golfers per capita than any other city in the country.
12. The climate-controlled Metrodome is the only facility in the country to host a Super Bowl, a World Series and a NCAA Final Four Basketball Championship.
13. Minnesota has 90,000 miles of shoreline, more than California, Florida and Hawaii combined.
14. The nation's first Better Business Bureau was founded in Minneapolis in 1912.
15. The first open heart surgery and the first bone marrow transplant in the United States were done at the University of Minnesota.



Thanks for visiting