

Emergency Medicine

Chair

- Andrew Nugent

Faculty: <https://medicine.uiowa.edu/emergencymedicine/profile>

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The Department of Emergency Medicine prepares new physicians to recognize and treat a variety of urgent and emergent conditions. The program fosters basic science and clinical research relevant to emergency medicine and is dedicated to the education and training of Emergency Medical Services (EMS) personnel through the Emergency Medical Services Learning Resources Center (EMSLRC).

Research

Research in the department is built on four research pillars: clinical, injury prevention, medical education, and health systems. Faculty members, graduate students, emergency medicine residents, medical students, and undergraduates are involved in research in a variety of projects and programs. Specific research interests include:

- rural regionalization and telemedicine;
- quality of care, efficiency, and cost-effectiveness of interhospital transport;
- prevention, diagnosis, and care of traumatic brain injury;
- off-road injury prevention;
- highway motor vehicle crash scene analysis;
- safe driving advocacy;
- simulation in medical education;
- improving access and quality of emergency care;
- decision-making processes for optimal drug selection in the emergency department;
- addiction medicine and harm reduction;
- toxicology;
- global health care access;
- interpersonal violence; and
- early risk stratification and prophylaxis in critical illness.

Patient Care

The Department of Emergency Medicine at University of Iowa Health Care and University of Iowa Stead Family Children's Hospital provides care for the most critically ill adults and children in a patient- and family-centered atmosphere. The department handles emergency cases in Iowa and from surrounding states.

Resources

The Emergency Department, located on the first floor of Roy J. Carver Pavilion, is a Level I Adult and Pediatric Trauma Center. It serves as a referral center for communities across Iowa.

MD Training

The two-week core emergency medicine experience is completed either at University of Iowa Health Care, Iowa City, or UnityPoint Health, Des Moines. This provides an initial opportunity to experience and learn emergency medicine. The advanced emergency medicine four-week clerkship at

UI Health Care takes place sometime after the core year and provides an opportunity for a more in-depth emergency medicine experience. In both clerkships, a student acts as an integral member of the care team and experiences a wide variety of patient scenarios and clinical pathology.

Elective rotations for Doctor of Medicine students are available at several other sites throughout Iowa, including St. Luke's Hospital, Cedar Rapids; Great River Health, Burlington; MercyOne Waterloo Medical Center, Waterloo; Broadlawns Medical Center, Des Moines; and Genesis Health Group, Davenport. Students may also arrange an off-service elective independently with established residency programs throughout the United States.

Additionally, the program offers an annual introductory month to emergency medicine; advanced life support; Wilderness Medicine, a rotation that includes scenario and didactic training in wilderness medicinal skills with travel to areas such as Colorado; and a two- or four-week toxicology elective.

Residency

The emergency medicine faculty directs the Emergency Medicine Residency. The residency is a three-year program that prepares residents for careers in diverse areas of emergency medicine, from rural practice to academics. The program emphasizes critical care training and rotations in a wide variety of specialties. Part of the clinical component is spent at St. Luke's Hospital, Cedar Rapids.

Courses

Emergency Medicine Courses

EM:8301 Core Emergency Medicine **2 s.h.**

Participation in direct patient care as part of a care team during emergency medicine clinical shifts; opportunity to perform supervised bedside procedures and call consults. Requirements: MD enrollment.

EM:8401 Advanced Life Support **4 s.h.**

Experience managing acute threats to life—including trauma, respiratory failure, poisoning, sepsis, stupor/coma, and acute myocardial infarction (MI)—using Advanced Cardiovascular Life Support (ACLS) and Pediatric Advanced Life Support (PALS) courses and clinical manikin work with EMS staff. Requirements: completion of MD core clerkship year.

EM:8402 Emergency Medicine UIHC **arr.**

Preceptorship with residents and faculty; emphasis on principles of acute medicine; clinical shifts, case conferences, simulations, exams.

EM:8403 Wilderness Medicine **4 s.h.**

Didactic and scenario training in physiology, diagnosis, and emergency treatment of heat- and cold-related illnesses, high altitude disorders, wilderness trauma, envenomations, and immersion injuries. Taught in wilderness areas. Requirements: completion of MD third year.

EM:8404 Emergency Medicine: St. Luke's, Cedar Rapids **4 s.h.**

Preceptorship with full-time emergency department physicians; clinical shifts, case conferences, simulations, exams.

EM:8405 Rural Emergency Medicine at Burlington, Iowa 4 s.h.

In-depth clinical experience in a busy rural hospital emergency department under supervision of residency-trained emergency physicians; lectures, skill labs, projects.

EM:8406 Emergency Medicine Des Moines 4 s.h.

Participation in acute emergency care, management of acute illnesses, follow-up care when possible; Broadlawns Hospital, Des Moines.

EM:8407 Emergency Medicine Waterloo 4 s.h.

Participation in acute emergency care, management of acute illnesses, follow-up care when possible; Covenant Medical Center, Waterloo.

EM:8409 Introduction to Advanced Life Support 2 s.h.

Intensive program providing basic training in life support skills, experience in procedures common to inpatient hospital environment, and practice with simulated critical care scenarios; lectures, small group discussions, procedure labs, high-fidelity simulations, and self-directed online learning; students become certified in Advanced Cardiac Life Support (ACLS).

EM:8410 Medical Toxicology Sioux City 2,4 s.h.

Clerkship at the Iowa Poison Control Center; intense introduction to breadth and depth of medical toxicology; students work independently and concentrate on many different areas and interests; work with a multidisciplinary team of nurses, pharmacists, and physicians; activities may include reviewing and presenting active poisoned patient cases during daily rounds and opportunities to see toxicology patients at bedside; preparation and short presentation in any area of medical toxicology. Requirements: MD enrollment.

EM:8411 Medical Toxicology UIHC 2,4 s.h.

In-depth introduction to medical toxicology; how to recognize and treat various toxidromes and the most common toxicologic exposures; initial management steps for life-threatening toxicologic exposures; focus on basics of pathophysiology and pharmacology to understand how drugs affect patients, and critical assessment of laboratory and other data obtained on the poisoned patient.

EM:8412 Emergency Medicine Unity Point Des Moines 4 s.h.

Clinical shifts in emergency department and emergency medicine related didactics; advanced cardiovascular life support (ACLS), airway management, calling a consult/communication, chest pain, toxicology, trauma, sepsis, ultrasound, febrile infant, headache, and psychobehavioral disorders.

EM:8413 Emergency Medicine Genesis Davenport 4 s.h.

Clinical shifts in emergency department and emergency medicine related didactics; advanced cardiovascular life support (ACLS), airway management, calling a consult/communication, chest pain, toxicology, trauma, sepsis, ultrasound, febrile infant, headache, and psychobehavioral disorders.

EM:8497 Research in Emergency Medicine arr.

Medical research, clinical or laboratory projects; individual study.

EM:8498 Emergency Medicine On Campus arr.

Advanced knowledge, skills, and tools applied under supervision in a clinical setting.

EM:8499 Emergency Medicine Off Campus arr.

Preceptorship with residents and faculty; emphasis on principles of acute medicine; Liaison Committee on Medical Education (LCME) accredited off-campus site. Requirements: completion of MD third year and approval from UIHC Emergency Medicine clerkship director.