A mix of beeps, hums and voices fills the air down the hallways that wind past curtained-off treatment areas, clinical stations, and exam rooms. Scrub-clad, Croc-footed nurses, attending physicians, physician assistants and emergency medical technicians scurry back and forth. A small nurses station and set of physician cubicles are separated by a row of WOWs (computer Workstations On Wheels) where three University of Vermont medical students stand, busily scanning electronic medical records for test results and calmly entering patient notes amid the flurry of activity.

Nearing the end of a required month-long emergency medicine rotation in June, these fourth-year students are working in the Acute Care Center of Fletcher Allen Health Care’s Emergency Department (E.D.). “We’re not allowed to sit on chairs,” jokes Matthew Meyer’11 as he looks up information on a case through the Access Medicine portal on the PRISM electronic health record system. On either side of him, classmates Heather Viani and Mary Guillot update patient records, selecting symptom information like “no chest pain” from the electronic chart’s menu, checking boxes that allow students — like providers — to quickly enter critical information, such as when the patient came into the unit, what type of complaint or symptoms the patient is experiencing and any medicines they might be taking.

Around the corner in a separate hallway, M.D.-Ph.D. student Michelle Shepard stands at the door of an exam room and talks to a patient and family.
members. The patient, who has already undergone urine testing, needs a finger stick before she can leave the E.D. In her friendly manner, Shepard informs the patient that a nurse will be in to do the stick and counsels her about health issues that can cause glucose in the urine, then returns the patient’s chart to a room number-ordered inbox system at the nearest nurses’ station.

“PRISM helps us keep track of who we’re seeing,” says Shepard, who has completed her Ph.D. and is now finishing the “fourth year” of her M.D. “We don’t have to chase down people for results.” The electronic system also alerts the E.D. about patients arriving by ambulance, which helps ensure that students get the chance to experience a variety of training opportunities, including imaging and diagnostics.

“You get to see a lot of different things here. There’s definitely a learning curve, but it’s a great training ground,” says Heather Viani, who is using one of the WOW stations to access information about hyponatremia, an electrolyte disturbance in patients with low sodium levels.

“It wasn’t busy in the morning, but it picked up at noon,” says Shepard who, earlier in the day, had an opportunity to view a lumbar puncture with attending physician David Clauss, M.D., associate professor of surgery. Fourth-year medical student Alan Frascoia has been busy suturing a laceration in the E.D.’s Orthopaedic Treatment Area.

Both Frascoia and Shepard admit that they will miss the E.D. when their Emergency Medicine rotation ends. Their feelings are shared by many other UVM medical students. In the past four years, Emergency Medicine residency matches at UVM have risen from five students in 2006 to 14 in the 2009 Match and 13 in the 2010 Match. And that trend is mirrored across the country. According to the National Resident Match Program, the number of U.S. medical school seniors headed to Emergency Medicine residencies increased for the fifth consecutive year in 2010.

So what is Emergency Medicine and why do students find it so appealing? According to the American Board of Medical Specialties, it focuses “on the immediate decision-making and action necessary to prevent death or any further disability both in the pre-hospital setting by directing emergency medical technicians and in the emergency department.” An emergency physician is responsible for providing “immediate recognition, evaluation, care, stabilization and disposition of a generally diversified population of adult and pediatric patients in response to acute illness and injury.”

During any given month, as many as six UVM students are rotating in Fletcher Allen’s E.D., the state’s only Level One Trauma Center. Stephen Leffler, M.D.’90, chief of emergency medicine and professor of surgery, believes the popularity of Emergency Medicine at UVM is linked to two major factors. First, the rotation is part of the core curriculum, so every medical student is exposed to the specialty. Second, in a curriculum that stresses extensive clinical exposure, the Emergency Medicine rotation packs an extra promise: here, the student typically gets to see the patient before anyone else does.

“When the students rotate down here, they go see patients first. Then, afterwards, they have an attending go back in with them and verify their findings. There’s a lot of mentoring that goes on here,” he says. “That’s often one of the first times in medical school that they’ve had the opportunity to be the first person in.” explains Leffler. “We’ve done this a long time, so we know which rooms it’s OK for them to go in first. Sometimes I’m following them in, and sometimes they’re following me in. They’re getting procedures here; they’re actually part of the care team from the beginning.”

For 15 years, while most current medical students were growing up, the television series ER was among the top ten weekly programs. Is there a correlation between ER’s
success and the rise in Emergency Medicine’s popularity.

“That show probably had a positive effect on our specialty, because people got to see what it’s like,” says Leffler. “But that’s really not how we introduced students to the field — we have to hold special appeal, according to Leffler. “Here you get broad-based exposure to all of medicine,” he says. “You have to have skills across the full spectrum of medicine, and enjoy the challenge of diagnosing and thinking on your feet.” This means both the excitement of life-saving medicine, and the more prosaic procedures, too. “You can go through three to four shifts without any action,” says Leffler. Students see as many or more sore throats as trauma cases. To help prepare students — and especially future Emergency Medicine specialists — for the health care system’s increasing dependence on E.D.s, Leffler wants them to be able to make critical decisions, and to control the number of tests they rely on — and not have the tests control them. “Critical thinking helps no matter what specialty,” he says. “If a test won’t change case management, our philosophy is ‘don’t get the test.’”

Class of 2010 graduates Trevor Pour, M.D., and Sarah Logan, M.D., were among Leffler’s most recent mentees. Their experiences prompted unexpected decisions to pursue the specialty, but for distinctly different reasons.

An active public health and health policy advocate, Pour was leaning toward neurology or psychiatry when he began an emergency medicine rotation the first month of his fourth year in his hometown at Rutland Regional Medical Center (RRMC). “I got hooked on it a little bit,” he says, and after a month-long rotation in neurology and another month doing psychiatry at Fletcher Allen, he struggled to determine which specialty to pursue. “I got a chance to have a sizeable piece of time devoted to research,” Freeman explains. “So I was thrilled Dr. Leffler and Dr. McFadden, the chair of Emergency Medicine at the University of Vermont, the Emergency Medicine rotation at Bellevue Hospital Center in New York City prior to applying to residency programs. That extra experience clinched his decision, and with guidance from Leffler, he applied for Emergency Medicine residencies and matched at Mt. Sinai Medical Center in New York City. “You get to do hands-on procedural work, counsel patients and see where medicine hits the ground — the ‘front line,’” shares Pour, who feels the broader perspective of Emergency Medicine is better suited to the health policy work he expects to do in the future.

Sarah Logan’s original specialty was linked to a personal experience. “My brother had ALL (acute lymphoblastic leukemia) and was successfully treated — that was my motivation to attend medical school,” she says. “I loved my pediatrics-related electives third and fourth year and I had 100 percent set on pediatrics and thinking about pediatric hematology/oncology.”

During her rotation in the Fletcher Allen E.D., Logan made “a complete 180,” she says. “It was the first opportunity where I could use all the medical knowledge and training I had acquired in real time. You have a unique opportunity to make a difference in someone’s life in a short window of time.”

Now a resident at Stanford Hospital and Clinics in Palo Alto, Calif., at graduation Logan received the College’s Society for Academic Emergency Medicine Award for excellence in Emergency Medicine.

A bonus opportunity aided his decision-making process — UVM students begin their training about three months earlier than other medical schools, so Pour was able to secure in a second Emergency Medicine rotation at Bellevue Hospital Center in New York City prior to applying to residency programs. That extra experience clinched his decision, and with guidance from Leffler, he applied for Emergency Medicine residencies and matched at Mt. Sinai Medical Center in New York City.

“Both students have the opportunity to make a difference in someone’s life in a short window of time,” he says. “They get to do hands-on procedural work, counsel patients and see where medicine hits the ground — the ‘front line,’” shares Pour, who feels the broader perspective of Emergency Medicine is better suited to the health policy work he expects to do in the future.

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For current student Michelle Shepard, the E.D. is like night and day compared to the lab where she completed her Ph.D. work. While she finds the pace tiring, she admits the work is satisfying. “A lot of people come in, get better, and leave,” says Shepard, who also appreciates the rewards that come with the Emergency Medicine rotation. “You get to assess patients first and use your knowledge of physiology and pathology. And you see the things you’ve studied for three years actually show up,” she says.

Fellow student Alan Frassica agrees. “Here we get to try and diagnose,” he says. He appreciates the way Emergency Medicine provides different perspectives of the patient than students usually see on an inpatient floor. “Being able to see patients first gives you an idea of what patients really look like when they come in, rather than later on when they’re more stable,” he says.

In an editorial for the May 2010 AAMC Reporter, Angela Gardner, M.D., president of the American College of Emergency Physicians, summed up both the broad responsibilities and the broad appeal of emergency medicine: “We also see every side of humanity and every segment of society. We treat rich and poor, old and young, the whole soup of human existence. One of emergency medicine’s pioneers used to say ‘no shoes, no socks, no shorts, no shirts, no sanity, no sobriety, no problem. I’m an ER doctor. I’m your physician. We’re always here. ‘We always care.’”