

ENTRY POINT



Care huddle: Every morning clinicians and other care providers participate in a huddle where they discuss the status and care plans of patients in the Geriatric Emergency Department at Mount Sinai Hospital in New York City. Pictured from left to right: social worker Megan Cambridge, care coordinator Brian Alvarez, attending doctor Angela Chen, and resident physician Elana Cohn.

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AGING & HEALTH

Age-Friendly Care At The Emergency Department

Mount Sinai Hospital in New York City is at the forefront of an innovative approach to geriatric emergency care.

BY MICHELE COHEN MARILL

Above a doorway in the Mount Sinai Hospital emergency department (ED) in New York City, a large digital clock announces the urgency of time, its glowing red numerals keeping track to the second: 2:06:15 ...2:06:16...2:06:17.... Eight members of

an interdisciplinary care team gather for rounds behind some monitors not currently in use. This huddle is starting a few minutes late.

It is midafternoon, and by now the ED is already overfilled with patients who have broken bones or dizziness, pain or shortness of breath, or any combination

of symptoms that seem scary or dire. This cramped ED on the Upper East Side sees 116,000 patients each year. About one in five are ages sixty-five and older, and each of these patients receives a special screening, based on the Identification of Seniors at Risk (ISAR) tool. The screening starts with six questions about functional disability, memory or vision problems, recent hospitalizations, and polypharmacy (that is, the use of three or more medications). Track boards on large monitors indicate whether a patient came from a nursing home, had been hospitalized within the past thirty days, or needs a conversation about goals of care.

This ED isn't just a place for quick response. The team pauses for a closer look at these at-risk older patients, who are likely to require interventions that go beyond medical care.

Amid the syncopated staccato of alarms and the jumbled din of conversation, emergency physician Ruben Olmedo highlights the case of a ninety-two-year-old man at an assisted living facility. He has heart disease and a pacemaker and has been feeling weak and "falling" onto his bed when he feels unsteady. He will be evaluated by a cardiologist and physical therapist, but Olmedo wants to know if the physical therapy will continue at his assisted living home.

"I'm going to make sure the facility will make PT happen," responds social worker Kirsy Castillo.

Next up: A sixty-eight-year-old man was assaulted during an early-morning walk in Central Park, and a CT scan shows that he has a neck fracture at the C-3 vertebra. Emergency physician Pedro Giron consulted with a neurologist, and they want him to have an MRI, but the man is worried about the cost and whether it will be covered by his insurance.

Giron doesn't want financial worries to get in the way of care; he asks a social worker to follow up with the patient and look into his concerns. "Let's do the necessary tests and then work it out later," he says.

It takes a special kind of magic to ma-



Solution team: At their regular huddles in the Mount Sinai Hospital Geriatric Emergency Department, care teams regularly confront patient challenges that extend beyond the medical realm. Solutions often include making linkages to social services and supports. Pictured from left to right: social worker Stephanie Macalintal, care coordinator Brian Alvarez, attending doctor Jonathan Schimmel, and physician assistant Anisha Lalwani.

never through the maze of insurance restrictions, government benefits, and community resources. Care for older adults requires a team approach, with nurses, social workers, and case managers who help pave the way to a successful discharge.

A pharmacist, physical therapist, palliative care specialist, and geriatrician are also available to the ED and sometimes participate in these huddles, which are one of the distinctive elements that make this space a formally accredited Geriatric Emergency Department (GED). The official label signals that this institution is equipped with the protocols and geriatrics-trained professionals necessary to provide high-quality care to older patients. But it also represents a commitment to a broader movement—with Mount Sinai among the hospitals at the forefront—to create truly age-friendly health systems nationwide.

The 4Ms Of Age-Friendly Care

As these care providers unravel the needs of at-risk older adults, difficult problems emerge. If a patient screens positive for dementia but lives alone, where should they go next? Sending them back home could be unsafe. But without medical necessity, hospital admission isn't an option. Instead, pro-

viders have to seek other solutions.

"If there's a problem, we can fix it. There's an answer some way, somehow," says Carlene Joasil, senior clinical risk manager.

Such dilemmas are becoming more commonplace as EDs care for a growing number of patients who are ages sixty-five and older, medically complex, and vulnerable. By 2030 the entire baby-boom generation—one out of five Americans—will be in that age group,¹ and many of them will start their medical encounters with a visit to a crowded ED.

Delivering the right kind of care for older adults is an imperative that faces all health systems, as more than three out of four older adults have multiple chronic conditions.² A hospital visit can be life saving but also life altering. Older adults are more likely to lose mobility and functional capacity after an ED visit, in a decline that lasts at least six months, according to a 2017 analysis of data from a prospective cohort study by a team from Yale University.³

Nationally, twenty-three million older adults visit an ED annually,⁴ and 20 percent of those patients are frequent users (that is, they make six or more ED visits a year).⁵ Only infants have a higher rate of ED usage than adults ages seventy-

five and older, according to the 2016 National Hospital Ambulatory Medical Care Survey.⁴

"This [aging] population has huge needs. Delivering that care is not a two-minute visit," says Andy Jagoda, chief of emergency medicine at Mount Sinai. "There are so many pieces needed to provide good care for these patients. That's the challenge that's confronting us."

Geriatricians have developed many successful models of hospital care for older adults, including Nurses Improving Care for Healthsystem Elders (NICHE), Geriatric Resources for Assessment and Care of Elders (GRACE), and Acute Care for Elders (ACE). But the greater goal is to spark a transformation to a better framework for handling the health care of an aging population.

In 2016 the John A. Hartford Foundation, a major funder of geriatric initiatives, partnered with the Institute for Healthcare Improvement (IHI) to turn the alphabet soup of acronyms into a simple but powerful movement via the Age-Friendly Health Systems initiative.

A coalition of experts, from front-line caregivers to health policy makers, distilled ninety features of seventeen models into four essential elements. They called the elements the "4Ms" of age-friendly care: what matters most to patients, mobility, mentation, and medication.

The 4Ms define care that meets the needs of the patient—not just in the hospital, but to enhance their daily lives. That involves addressing delirium, dementia, or depression; an emphasis on maintaining safe mobility; a review of medications; and a conversation about the patient's goals.

"The 4Ms are not new. They are in practice some days in some places with some older adults in just about every single hospital," says Leslie Pelton, a senior director at the IHI. "This movement is about making sure every older adult gets the evidence-based care they deserve."

Five health systems paved the way as pioneers: Anne Arundel Medical Center, Annapolis, Maryland; Ascension, St. Louis, Missouri; Kaiser Permanente, Oakland, California; Providence St. Joseph Health, Renton, Washington; and Trinity Health, Livonia, Michigan.

The American Hospital Association and Catholic Health Association of the United States joined as partners, and in September 2018 “action communities” formed to provide training and support to systems adopting the 4Ms.

The Age-Friendly Health Systems initiative set a goal of reaching 20 percent of US hospitals and medical practices by December 31, 2020, which means about a thousand hospitals would receive age-friendly recognition from the IHI. By September 2019 more than 357 health systems had begun learning to adopt the 4Ms, and 115 hospitals and medical practices had been recognized as participants in the initiative.

In a parallel effort with similar goals, the American College of Emergency Physicians (ACEP) began accrediting GEDs in 2018, an effort sponsored by the Gary and Mary West Foundation and the Hartford Foundation. Level 3 accreditation, intended as a starting point or for hospitals with limited resources, requires the ED to have at least one geriatrics-trained nurse and physician; a geriatrics quality improvement program; and ready access to mobility aids, food, and drinks.

Level 1 GEDs, those that meet the “gold” standard, use interdisciplinary teams, conduct routine risk assessments, employ more geriatrics-trained staff members, and solicit patients’ input on GED quality. (Level 2 accreditation requires having additional staffing, supplies, and outcomes metrics, compared to level 3, but not to the extent required for level 1.)

As of mid-September 2019 ninety-eight hospitals had an accredited GED. Mount Sinai was among the first to gain accreditation for its GED and is one of ten hospitals to have a level 1 GED.

GED accreditation requires more than completing a checklist. It’s an approach to care.

“To put it simply, a traditional emergency department [responding to a patient’s fall] figures out, ‘Did you hurt anything?’ and ‘Did you have a heart attack that made you fall?’” says Kevin Biese, an associate professor of geriatrics and emergency medicine at the University of North Carolina at Chapel Hill and chair of ACEP’s geriatrics accreditation program. “A geriatric emergency department takes that next step and

GED accreditation requires more than completing a checklist. It’s an approach to care.

says, ‘How can I prevent you from falling tomorrow?’”

The Geriatric Emergency Department

Geriatricians have long advocated for age-friendly health care. As an aging population brought new complexities to the ED, emergency physicians became their partners.

In 2004 overcrowded conditions caught the attention of Ula Hwang, an associate professor at Mount Sinai who has a joint appointment in emergency medicine and geriatrics. She soon realized that older adults were the most vulnerable in the stressful environment.

“I would pick up charts and the patient had been there sixteen hours,” Hwang says. “You’d call out their names and they’re still there because they have no place else to go.”

The American Geriatrics Society had already begun to take a closer look at the medical needs of an aging population. In 2001 the society convened discussions about a Research Agenda Setting Process in ten specialty areas, including emergency medicine.⁶ Two years later a special issue of *Academic Emergency Medicine* focused on the topic, with an editorial by James G. Adams at Northwestern University, in Chicago, Illinois, and Lowell W. Gerson at Northeast Ohio Medical University, in Rootstown.⁷

Pediatric units evolved because children had unique needs, the authors noted. “Yet geriatric patients, sometimes the most complex of all, are left in to the usual chaos, despite widespread recognition of unmet needs. Perhaps a new model of care must be conceived,” they concluded.⁷

It took time for the idea to take hold. In 2007 Hwang and R. Sean Morrison published an article in the *Journal of the American Geriatrics Society* that advocated broad changes in the ED environment and care processes. The authors called for Geriatric Emergency Department Interventions (GEDI).⁸

Holy Cross Hospital in Silver Spring, Maryland, opened the nation’s first Seniors Emergency Center in 2009, with six bays and two private patient rooms designed for older adults. Other hospitals followed suit, with some designating an area within the ED and others creating a separate unit. In 2019 the University of California San Diego created a model center, funded with almost \$12 million from the philanthropists Gary and Mary West. It has such touches as variable lighting to orient patients to the time of day, wall-size artwork that depicts nature scenes, and a private lounge for caregivers. Geriatricians provide consultations guided by the 4Ms.

Most importantly, GEDs use a team approach that looks beyond the emergent condition, such as pain or shortness of breath, to find the care that meets the patient’s personal goals and broader medical needs. Transitional care team members work to find support services and schedule follow-up appointments. They contact patients within seventy-two hours of their discharge to make sure that they’re safe and understand their medication schedule and discharge instructions. Mount Sinai also created a program called Transport Plus, in which trained ambulance teams assess the safety of the home environment when they bring older patients home.

“The geriatric ED can be a physical space, but it can also be processes and procedures and the approach to the patient,” says Denise Nassisi, director of the GED at Mount Sinai.

Innovative Care Pays Off

Those age-friendly processes at Mount Sinai, now integrated throughout the ED, began as Geriatric Emergency Department Innovations in Care through Workforce, Informatics, and Structural Enhancements (GEDI WISE). That’s a mouthful, but in practice, GEDI WISE is a model of a streamlined approach to care for older adults. Funded by an innovation grant from the Centers for Medicare and Medicaid Services (CMS), it involved new protocols for triaging older patients and managing their care, as well as mandatory training of physicians, physician assistants, advanced practice registered nurses, social workers, and pharmacists.

Transitional care nurses evaluated the

mobility and cognitive function of older adults, coordinated their care with an interdisciplinary team, and provided support as patients transitioned home. (Those elements eventually became integrated into ACEP's guidelines for caring for the geriatric population in the ED.)

Mount Sinai partnered with Northwestern University and St. Joseph's Regional Medical Center in Paterson, New Jersey, to implement and study GEDI WISE. From January 2013 through July 2015, 57,287 people ages sixty-five and older had 120,221 ED visits at the three hospitals. (The study excluded about 1 percent of patients who came to the ED with the highest acuity and were not treated through GEDI WISE protocols.)

Each hospital implemented the program somewhat differently, so the data were analyzed separately. But all three reduced hospital admissions, and two of the three reduced thirty-day readmissions. The third hospital had no change in readmissions, which still indicated that the discharges had occurred safely.⁹

GEDI WISE patients at Mount Sinai were more likely than other similarly ill older patients to return to the ED within seventy-two hours, but that second ED visit isn't necessarily a failure, says Hwang, one of the study's principal investigators. "Maybe in the past they would have been admitted, but instead now they're back to the emergency department for a second time just for a reevaluation," she says.

Another way to measure success is through the lens of the most important "M" in the 4Ms that define Age-Friendly Health Systems: What matters most to patients.

When patients have multiple chronic conditions, care decisions become complex. Medications that reduce pain, for example, might lead to more mental confusion or increase fall risk. Mary Tinetti, chief of geriatrics at the Yale School of Medicine, in New Haven, Connecticut, advises asking patients simply: Of everything going on with your health, what do you most want to focus on? What do you want most from your treatment?

She calls it Patient Priorities Care. "No matter what's going on, you can always do something that's going to help what matters to that individual," says Tinetti,

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who is also cochair of the Age-Friendly Health Systems Advisory Group.

Mount Sinai provided palliative care training to all ED physicians and nurse practitioners, which included role-playing with actors as patients and family members. It's hard to take the time for these deeper discussions in a busy ED, says Jolian McGreevy, medical director of the Mount Sinai ED. "When you do it, you realize it has such a big impact," he says. "You realize what kinds of things were avoided that the patient didn't want."

Respecting Elders

The most passionate advocates for age-friendly health care often have a personal story about challenges faced by older family members in the hospital. Kevin Baumlin, chair of emergency medicine at Pennsylvania Hospital in Philadelphia, still thinks about his grandmother as he works to promote age-friendly care.

Almost ten years ago Baumlin was looking after his grandmother, who lived in a long-term care facility, while his parents were out of the country. When he learned that she had fallen and been taken to a local hospital in New Jersey, he struggled to contact someone who could tell him about her status. The hospital discharged her back to the facility, but she was still in pain and increasingly confused and agitated. The ED had missed a pelvic fracture, and she needed to be readmitted.

"That was the beginning of the end," he says. "She deteriorated from then on."

At the time, Baumlin was vice chair and medical director of the ED at Mount Sinai, and he was determined to make care safer for patients like his grandmother. As part of a quality improvement project, he began assessing the

encounters of older adults. "One-third of them were completely alone for the entire time they were there. Who's going to advocate for them?" he says.

He also discovered that when nurses were overburdened in the crowded ED, older adults would try to get out of bed by themselves to go to the bathroom. Too often, they were falling and injuring themselves in the ED.

Baumlin needed a solution that didn't require new resources. He came up with the idea of using volunteers to interact with older patients, and a geriatric fellow, Martine Sanon, helped design Care and Respect for Elders in Emergencies (CARE).

The program started with just two trained volunteers. Even that small pilot project had a measurable effect. Patients who interacted with CARE volunteers took fewer medications for anxiety that are considered inappropriate for older adults. They were less likely to fall and less agitated.¹⁰

"The most effective intervention was just having someone to talk to during those long hours and wait times," says Sanon, who is now director of inpatient geriatric medicine clinical services.

Today more than a hundred CARE volunteers work four-hour shifts in Mount Sinai's ED and inpatient units. They have a stash of supplies that includes knitting needles and yarn, puzzle books, reading glasses, stress balls, and hearing amplifiers. The program has expanded to provide Care and Respect for Everyone, but volunteers seek out the older adults—especially those who are alone.

A Quiet Space

On a recent summer afternoon, Philip Utley, a seventy-nine-year-old New Yorker, lies in a bed in the ED. With comb lines visible in his reddish-brown hair and wire rimmed glasses sliding down his nose, Utley clutches a Hardy Boys book in his hands. Susan Klimley, a retired librarian, walks up and gives him a warm smile.

"I see you've got your book with you," she says, her voice loud and distinct. "Can I see what you're reading?"

Utley tilts the book forward to show her the title. She notices that Utley has a jacket stretched across his lap, and within moments she finds him a blanket.

Utley came to Mount Sinai's ED because he was struggling to breathe. Diagnosed with pneumonia, he is now waiting for an inpatient bed, where he will get intravenous antibiotics. This is not his first time in this ED—Klimley recalls seeing him before.

"Well, you know the drill," says Klimley, who sports a blue vest and an oversize button showing that she is a CARE volunteer. "Everything takes time."

Utley's bed is one of five in this acute geriatric unit, where the only noise is the chatter from a TV and the hum of an air conditioner. The lights are softer, and the woodlike vinyl flooring—nonslip and nonglare—adds a homey touch.

In the main ED across the hall, each narrow bay is separated by a curtain, with a sliver of space for a friend or family member to stand at the bedside. Stretchers are doubled up in front of the bays and line the walls, so that clinicians walk in single file as they make their way around to attend to patients. The hospital has a policy of quick triage. No one waits in the lobby, but care gets stalled as patients await imaging, blood tests, and consultations.

The GED has been a work in progress. In 2012 Baumlin had an opportunity to renovate part of the ED, and he made it age-friendly with softer lighting, nonslip floors, and hand rails. Decorative ceiling panels resembled skylights revealing the sky on a beautiful day—bright blue with puffy clouds and over-arching tree branches. A timer altered the lighting so the panels evoked dawn in the morning, bright sun in the afternoon, and dim light in the evening, giving patients a sense of the time of day even without windows to the outside.

But soon the space was repurposed to allow for a larger pediatric unit. The GED moved to a smaller room, and an area with a similar skylight and other age-friendly attributes became an observation unit, with a priority for older adults. Mount Sinai is now planning a complete renovation of its ED, which will be entirely age-friendly.

What Matters Most

Diana Motti knocks on the door of an apartment in the Jacob Riis Houses, a massive low-income housing complex on the Lower East Side. Thunderous barking erupts. By the time the door

opens, the barking has subsided, but colorful birds in a stack of cages fill the air with high-pitched chirps.

Yet Motti's attention is on something else: the smell of floor cleaner. It seems her seventy-five-year-old patient, Juan Cortes, has been dry-mopping the floor—a sign that he's mobile and feeling better.

Cortes, a portly man with a thick silvery mustache atop a ready smile, came into the ED a few days earlier with shortness of breath and swelling in his legs. About eighteen years ago the now-retired Lincoln Center maintenance worker had a heart attack and cardiac bypass surgery. Now he has congestive heart failure, diabetes, chronic obstructive pulmonary disease (COPD), atrial fibrillation, chronic kidney disease, coronary artery disease, and hypertension.

Earlier this week, after spending a night in the ED's observation unit, he was still waiting for an inpatient room when hospitalist Kamana Pillay approached him with a counterintuitive offer: Would he like to have his hospital services at home?

Hospitalization at Home (HaH) is part of the continuum of age-friendly services in the ED—an option to not be there at all. "One of the most age-friendly methods of dealing with the potential complications of being in the hospital is by doing hospital at home and avoiding them," says Albert Siu, chair emeritus of the Department of Geriatrics and Palliative Medicine and director of the Mount Sinai at Home program, which includes Rehabilitation at Home and Visiting Doctors.

Based on a model developed by geriatrician Bruce Leff at Johns Hopkins University, Mount Sinai's program treats patients with nineteen different conditions, such as acute exacerbation of COPD or urinary tract infection.

Patients like Cortes receive their first visit from a nurse within two hours of their transport home. The nurse assesses the environment, sorts medications in a daily box, and sets up telehealth services with an iPad and Bluetooth-enabled scale, blood pressure device, and thermometer. Nurses from Contessa Health, a company based in Nashville, Tennessee, that offers home recovery care via telehealth, monitor the metrics and communicate with patients and Mount Sinai providers. A Mount

Sinai physician or nurse practitioner visits every day, and nurses make two additional visits a day. During home care visits, Cortes received an intravenous diuretic to remove excess fluid.

HaH lasts about as long as the typical hospital stay—three to five days, on average. Patients receive continued monitoring for thirty days after discharge. Any urgent situation can prompt a visit by an HaH provider or a paramedic who is supervised by a physician via the iPad.

At-home care gets high ratings from patients, and it ultimately lowers health care use. A 2018 study found that Mount Sinai's HaH patients were less likely to have a readmission within thirty days or a transfer to a skilled nursing facility, compared to patients who were eligible for the program but didn't participate in it.¹¹

But remaking health care for an aging population is challenging. Mount Sinai launched its program with a CMS innovation grant in 2014 and proposed an ongoing payment model, but CMS has not approved a payment method that the hospital can use for patients with traditional Medicare. Most patients who receive care through HaH have private insurance or managed care plans through Medicare or Medicaid.

Cortes did well with the program. As he weighed himself each day, the scale transmitted his weight loss—due to a reduction in fluid—to the HaH team. A couple of days after discharge, though, he felt cramping in his legs and became too weak to get up out of a chair. He stopped taking the new diuretic prescribed in consultation with his cardiologist (he takes more than a dozen other medications), and Motti came to examine him and adjust the dosage.

Instead of Cortes returning to the hospital, the hospital care returned to him. "I feel better at home," he says. "You rest in the hospital. When I'm home, I'm walking back and forth, cleaning a little bit."

His encounter in the ED gave Cortes age-friendly care in the context of what matters most to him: being able to stay in his apartment, take walks around the building, and keep up his strength even as he copes with chronic conditions. ■

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NOTES

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