My grandfather was in the hospital last summer. And the summer before that. It’s strange because he’s actually a really healthy guy. Seriously. I remember, when I was a kid, he’d wake up early to go to aerobics classes before work. He bicycled to work every day, too, except when it was raining. I remember him on his old Schwinn, in part because I remember him teaching me how to ride a bicycle, a big one with no training wheels that I was convinced was far too tall. Turns out, it wasn’t. That was a long time ago, but he’ll never let me forget about that blue bike — I think it’s still in the garage. But what he’s already mostly forgotten is being in the hospital. In fact, he’d forgotten most of the experience by the time he came home. And what he remembered, it wasn’t exactly right. You can’t tell someone that their memories are wrong — that, in itself, seems wrong — but his are. Somewhere, in the dark pockets of his brain, his memories got mixed up. Maybe his whole brain was mixed up. He’s not sure, since he doesn’t really remember. We don’t know because we’re just family, and the doctors never told us what was wrong with him.

This is my story, but it’s not really mine to tell. I’m supposed to tell you about what I saw, but what I saw doesn’t really matter. What matters is what he felt, and he can’t tell you because even he barely remembers it, either.

Delirium.

Although it used to masquerade under frightening monikers like “ICU psychosis,” this is the word medical professionals now use to describe the symptoms my grandfather experienced last summer. Characterized by disorganized thinking and the inability to pay attention, delirium is an acquired brain disorder that besets sick patients who lose track of reality and struggle to think clearly. It affects up to 80 percent of all ICU patients and can lead to permanent mental impairment if undetected. Yet most people don’t even know it exists.

Delirium in and of itself is certainly not a new medical phenomenon. In fact, it was commonplace enough to be immortalized by Charles Dickens in a chapter from The Pickwick Papers in 1837 called “The Stroller’s Tale,” which details the feverish madness of a dying man. What is new, however, is the way the medical community is approaching the problem.

At the forefront of current research is the ICU Delirium and Cognitive Impairment Study Group, a coalition of researchers at Vanderbilt University School of Medicine. The group was founded by Dr. E. Wesley Ely, a professor of medicine at Vanderbilt, who specializes in geriatric pulmonary and critical care. He wanted to ensure that the elderly weren’t experiencing a disproportionate amount of brain damage during their hospital stay.

“I realized that it was the brain, that the older patient would come in with less neuroplasticity, or less resilience, of the brain,” he says. “And it turned out that there was a huge amount of delirium and
subsequent dementia or neuropsychological dysfunction in these older patients.” Although younger patients experience delirium, too, their brains seem to be more resilient when they recover.

Despite its prevalence in the ICU, delirium remains unrecognized in 66 to 84 percent of patients. “It’s one of those ‘if you don’t look, you won’t find’ things,” explains Ely. “It simply has not been looked for.”

When you bake a cake, which specific ingredient is the one that makes it taste good? What ingredient makes your recipe different from someone else’s? It’s hard to single out just one. Maybe it’s the balance of the ingredients or the order in which you combine them. How can you ever really be sure?

Discerning which symptom has triggered delirium is equally elusive, says Dr. Jeffery S. Vender, chairman of the department of anesthesiology and director of critical care services at NorthShore University HealthSystem.

“How do you separate out the cognitive impairment of being critically ill from cognitive impairment associated with delirium?” he asks. “A lot of the time when people have critical illnesses, the secondary effects can be what we refer to as multifactorial. They’re not necessarily due to any one of the critical illnesses; it can be due to the combination of their effects.”

Indeed, the list of potential causes of delirium seems endless. The Vanderbilt study group found that the average critically ill patient has at least 10 different risk factors for delirium at any given time during their hospitalization. Even being critically ill in and of itself is a predisposing risk factor, says Vender.

According to Ely, the most common causes of delirium are systemic illnesses, such as severe sepsis and congestive heart failure, which affect blood flow to the brain. Drug or alcohol withdrawal, infections and preexisting mental illness or impairment can all trigger delirium. So can medical procedures like surgery. Even medications administered in the ICU can be triggers. Ventilators are a risk factor as an indicator of extreme illness but may also render the patient incapable of communication. Psychoactive drugs, sedatives and painkillers — all frequently prescribed in the ICU — are leading culprits.

But just as often, delirium stems not from something physical or medical but from the patient’s environment. Loud ICU rooms are bright and full of interruptions, check-ups and distractions. Although patients appear to be resting, albeit under the influence of sedatives, they get very little real sleep while in the ICU. This sleep deprivation facilitates delirious episodes. Drab, windowless ICU rooms also offer minimal access to the outside world. Walled-off patients, immobilized in their beds, can easily lose track of time and place.

There are three types of delirium, but it is the hyperactive variety that gets everyone’s attention, as it causes agitated behavior and makes patients irritable, noisy and difficult to deal with. “It’s easy to find someone who’s hyperactive and delirious,” says Dr. Jeff Zilberstein, an intensivist at Northwest Community Hospital in Arlington Heights. “They’re pulling out their IVs, they’re yelling at the nurses, they’re yelling at their loved ones.” Still, although visible, it accounts
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There is no intuitive cure-all for delirium. Many treatment methods are the same tools used to prevent it — correcting environmental problems goes hand in hand with prescribing the best medications to calm delirious patients.

Because delirium is so closely associated with serious illness, it often disappears as health improves. A quick recovery minimizes the probability of delirious episodes, or, at the very least, shortens their duration. The very best solutions are non-pharmacologic, says Zilberstein, which means that they don’t involve any medications at all. The focus in these efforts is redirection — reminding the patient of where they are and whom they are by talking to them or putting family photos in the room. Studies show that even little things, like a calendar in the room and a clock on the wall, can help. Minimizing use of restraints and catheters, maintaining electrolyte levels, preventing dehydration, adjusting the room’s light-dark cycle and getting patients off sedatives and ventilators so they can move around, all go a long way toward preventing and halting delirium.

Ultimately, the more the patient gets reoriented, the better it is. “Getting out of the ICU as soon as medically appropriate often helps get rid of the delirium,” says Christine Lavlor, an RN in Evanston Hospital’s ICU. “This environment is just so much. Even when you try to make everything quiet, there are still monitors attached, there are still people checking on you frequently.” The home environment can help — a combination of the illness receding enough for hospital discharge while reentering a familiar environment can do wonders for mental health.

“When you put people into their home settings versus the hospital setting, there’s something magical that happens sometimes,” says Zilberstein. Suddenly, patients know who they are, and they don’t need to be redirected anymore.
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