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Forty-three is a substantial number. That's a long time and a lot of highly skilled, determined, and visionary critical care professionals came before us. Many of you wonderful people are here with us today. We stand on your shoulders, the shoulders of you amazing professionals, and together we are tasked to build the future of critical care medicine. To each of you, we thank you for all that you have done.

So, what future will we build? What does this future look like? Well, here's a thought: critical care is all around us. What does that mean? What are the ramifications of boundlessness? Let's talk about that. Our critical care roots are historically linked to geography. In the beginning, we created boundaries. We intended for these boundaries to be protective. We created boundaries in order to concentrate the patients, the people, the tools, and the drugs. We created actual physical boundaries.

This helped us to create a sense of purpose, so historically critical care has been described by a place, a location. But for some patients, it even became an exclusive destination. And we made rules, house rules. For a long time, we even made family members ring the doorbell and ask permission to enter our house. We spoke like this: "Hey, the Jones family is ringing the intercom and wants to come back. Would you hit the button and buzz them in? Thanks."

So who is allowed to enter our house? Which patients, which healthcare professionals? Are you on the team? Do you have permission? Is your ICU open, or is it closed? By the way, this open/closed way of thinking has not always been helpful. Our goal has always been to define who is most likely to benefit from life-saving care. But who actually decides all of these things? We all spend many hours discussing these questions, attending the meetings, writing policies, seeking compelling data to guide our way.

This may be uncomfortable, so before I continue, let me pause here and offer you some preemptive reassurance. Yes, we still need ICUs. Yes, we still need to cluster the sickest patients around our teams with advanced, highly developed critical care skill sets. And yes, the multiprofessional team is still vital. But we need to do more. We know this, but let me say it anyway: this place called an ICU is not the whole story for critical care. Our future is bigger than the ICU.

So what happens when we acknowledge that our existing boundaries have become restrictive? Restrictive to families, restrictive to other caregivers who participate, restrictive to other patients who would benefit from our care. Today, these traditional boundaries hinder our efforts and hinder our further growth. So should we simply expand these boundaries, or should they be dissolved altogether? That is what I want to talk about with you today. Where are we going? Here are several major boundary challenges that require all of us to roll up our sleeves and to work together.

First, how do we more efficiently and accurately identify, locate, and provide the right care to critically ill patients no matter where the patient is located? We need more precise and predictable systems of care, more reliable methodologies, and better infrastructures that overcome human factor limitations. We must ensure that the care reliably and predictively finds the patient, not the patient finds the care.

Second, what about critical care prevention? This is related to the first point. Our job is not simply to treat critical illness; we are equally tasked to prevent the need for critical care. Badness prevention: this has several definitions and connotations. The most efficacious critical care is the critical care intervention that a patient never needs. Our true jobs lie in the prevention of critical illness. The ICU should become a location, a way station, a purgatory to be avoided if possible. Critical care prevention is not just for patients who are peering into the abyss; this is not just-in-time rescue. In fact, these responsibilities extend well beyond our current concepts of rapid response teams and the like. Some of these patients are right under our noses in our ICUs. They have delirium, they are weak, they are bedbound. Other patients who need critical care prevention are not in an ICU; in fact, some are not even in the hospital–patients at risk

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of deterioration, patients predisposed to sepsis or other catastrophic conditions. Some patients have these predilections encoded in their genes. Others teeter precariously every day with multiple disease comorbidities and chronic critical illness.

Chronic critical illness: these patients unravel and land in our ICUs. Our treatment goal is to establish or reestablish their tenuous equilibrium state. We do things; we can't really fix anything. When these fragile patients leave our units, what happens? Now what? How do we assist? How do we actively help to sustain their tenuous equilibrium and prevent the need for ICU readmission? For some patients and their families, acknowledging that life ends, not readmission, should be our focus. So where are the boundaries for all of these responsibilities?

Third, who is on the critical care team? More boundaries. By necessity, our definition of *team* is evolving. Our multiprofessional ICU teams variably include members beyond the geography of an ICU and perhaps even the hospital. That readmission for congestive heart failure: we initiated furosemide, but if we don't make sure that this treatment is continued, then who is responsible? If not you, and you, and me, then who? Where are the boundaries of our critical care teams and their responsibilities? Primary care physicians, nonhospital providers, even family members and the patients themselves: how do we ensure that these vital people are fully integrated team members as well? Who becomes the critical care band director across boundaries?

Fourth, how do we appropriately meet the growing needs for critical care services? Today, there are more ICU sick patients than there are people and resources allocated to care for them. This is true for academic medical centers, community hospitals, and other ICUs where our patients are admitted. We can't reasonably fill this gap by building more ICU beds and then staffing them with traditional critical care teams. That is a geography-based approach to a problem that is much bigger than geography. Besides, this approach is neither affordable, practical, nor sustainable. So again, who else is qualified to participate in the provision of critical care? Which providers? How much training? Many US hospital-based providers who are not formally trained in critical care provide a large volume of critical care services today and everyday. Given these realities, how should we define and measure our critical care competencies? And what about critical care outreach, or regionalization of ICU care, or electronic virtual technologies? Do these approaches extend our boundaries? What do we still need to invent? How do we link all of these team members and technologies together across boundaries into highly functional teams?

Fifth, do we continue our attempts to build works of art in our ICUs? Traditionally, we have embraced a masterpiece-like approach to critical care medicine. Our most complex ICU patients become masterpiece paintings, a masterpiece painting assembled by many. Each masterpiece is unique, individual—bold strokes, light, shadow, an expression of being. All of our critical care masterpieces are resource-intensive, but unfortunately, some masterpieces are not as masterful as others. These patients would benefit from us powerfully shifting our focus away from unique creativity and more to predictability. So what are the boundaries between individualized masterpiece care

provided by a team of many and predictable high-reliability care provided efficiently and with fewer resources?

Sixth and finally, what constitutes a successful ICU outcome? We recognize that success is not simply defined by a patient leaving the ICU alive. Historically, by limiting our focus to the geography of an ICU, we have not addressed, at least not adequately, a really big and important factor. Surviving an ICU stay can have huge and negative consequences, catastrophic consequences, for patients and families. Some of these post-ICU consequences are iatrogenic. Unfortunately, for many of our patients and their families, we do not have an adequate post-ICU safety net. We do not have sufficient healthcare, community, and other support systems in place to help restore these families and these patients to their pre-ICU baselines.

That is an overwhelming list, but it is happening now; ready or not, here we are. For all of us, meeting these challenges will fundamentally change our practice of critical care medicine. We are all standing together astride a major inflection point for critical care medicine. Inflection point: we use that phrase a lot—too much really—but what we have just enumerated, these challenges, these truly require an inflection point mind-set or we will not make the necessary changes. As they say, go big or go home. So who will lead this change? Simply stated: all of us. We are all leaders by necessity. The essence of critical care is collaboration: collaborative leadership and collaborative decision making.

How do we fit all of these things together? Obviously, there is not a bright shining light, a unique formula, or one approach to address these tough challenges. Many times, remedies develop ad hoc, locally unit by unit. Many are clever and innovative, but many are simply bandages. Remedies are not necessarily solutions, and rarely are they durable solutions. We must work together to address these questions of geography and questions of boundaries as enumerated here today. We need to tackle these challenges together. We need to address these boundaries head on: direct, clear, concise, systematically, with discipline.

You know this one: in an elevator, someone asks you, "So what exactly are you trying to accomplish?" And then you have only a few seconds to give your response directly, clearly, concisely. So what is our elevator answer? What exactly are we trying to accomplish? Well, here it is: we need to tear down more walls. That historical phrase is a bit grandiose, but it is accurate. Critical care across boundaries, this defines our inflection point: together.

I cannot close my remarks without recognizing the important role of our families and our loved ones. I have an amazing family, I truly do. Our kids are wonderful. They're talented people; they are committed to the well-being of others. They are committed to making the world a better place. What more could a parent want? My wife, Beth: we don't deserve her. She has always stood for what is right and what is good. Every one of us in my family, our family, is sustained by her love. And we depend, every day, on her profound wisdom. My family: we will always love and take care of each other.

For all of us here today, we give everything we have to our patients and to critical care—and then we go home. Our tanks are empty, and our families and loved ones often take the hit. And the next day, we do it all over again. So I will ask just one favor of each of you. When you next go home, stop what you are doing and tell the ones who love you, the ones who give us sustenance, tell them that you could not do what you do without them. Touch them with your love and your appreciation, please.

The staff members and the leaders of SCCM are amazing, from David Martin, our CEO, to each and every staff member. They are dedicated, talented, and wonderful people. They are an awesome family, too. Please stop them in the hallways during this Congress, and thank them for all that they do for each of us.

And most importantly, I want to share my deep, deep admiration and profound respect for those who do the work of critical care, for every one of you. It takes a special person with

a sharp mind and a soft heart to work in the ICU. Like firefighters, police, emergency medical technicians, and mothers, you run toward the crisis, into the burning building, to the broken body, beside the skinned knee. Each day, you navigate that fine line between compassion and dispassion, simultaneously reaching out to touch families and patients, while assimilating complex data and problem solving with the detached eye of the professional that you are. I so deeply admire and appreciate what you bring to your job, day in and day out, for the betterment of our ICU patients and their families. I am so proud to be your colleague.

So let's work together. Together we will tackle these boundaries, these tough challenges. Let's work together to tear down more walls.

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