



Clive A. Meanwell

EDITORS' NOTE Dr. Clive Meanwell is the Founder, Chairman, and Chief Executive Officer of The Medicines Company. He was previously a partner and managing director at MPM Capital, L.P. and, before that, held key positions at F. Hoffmann-La Roche, Inc., including Senior Vice President at Roche Biosciences in Palo Alto, and leadership roles at Roche's Basel, Switzerland, headquarters. Meanwell received his M.D. cum laude and MB, ChB. from the University of Birmingham, U.K. and a Ph.D. from that university.

COMPANY BRIEF The Medicines Company's (themedicinescompany.com) vital mission is to save lives, alleviate suffering, and contribute to the economics of healthcare by bringing unrivaled solutions for serious infections, acute cardiovascular events, and anesthesia and surgical care to 3,000 leading acute/intensive care hospitals worldwide. Its vision is to be the pre-eminent provider in these three areas through superior science and innovation. The Medicines Company operates in the United States with an emerging footprint in Europe and partnerships in Asia.

What is the history of The Medicines Company, and what are some of its distinguishing factors?

We aim to lead in acute and intensive care medicine. There is no higher priority for us than improving health outcomes for critically ill patients in more cost-effective ways, driven by continuous improvement in our science and products. Our roots were established 20 years ago and our focus has always been on industry-leading, value-based healthcare.

We saw from the start that the proportion of GDP expenditures on healthcare, even in leading nations such as the U.S., Germany, China, and Japan, would be limited going forward. Therefore, we knew if we were going to develop solutions from scratch, we had to focus on the value equation. It was a simple question of business model sustainability as we worked to achieve our goals.

Changing the Economics of Acute Hospital Care

An Interview with Clive A. Meanwell,
Chairman and Chief Executive Officer, The Medicines Company

We are very lucky to have that focus because it has turned out to be increasingly important. New technologies in healthcare – especially in hospitals – have contributed not only to improved outcomes for patients and their families but also to the efficiency of hospital systems and, ultimately, to managing the cost of care. If we don't deliver both medical and economic improvements, we won't deliver value or be able to sustain our business.

All of our products and technologies are aimed at 1,200 leading hospitals in the U.S., and not more than 1,800 in the rest of the world. That's a relatively small number of customer institutions to work with and the number is falling as hospitals consolidate into more efficient multi-institution systems. This concentration allows us to put them at the middle of our universe, and that keeps us sharp for R&D, where our numbers are gratifying, for marketing, distribution, and sales. We start by asking, what jobs are being done in hospitals? What needs to be made safer, faster, more effective, or less costly? Leaders in hospitals don't say, "We need more drugs"; they say, "We need better patient outcomes, more efficiency."

Is it hard to differentiate within that space? How do you define what makes the company unique?

Delivering authentic healthcare innovation is more challenging and complex than ever. It demands a sharp focus on what customers really need. This is a very competitive industry with some amazing companies offering incredible technologies.

At The Medicines Company, our focus is less on the technology per se and more on the solutions it can provide – including changes in the process of care and in caregiver behavior. Our solutions influence outcomes. To accomplish that, we focus on a group of hospital customers rather than on a specific class of technology. This is different from most of the pharmaceutical industry, which generally targets specific therapeutic areas such as cancer, diabetes, inflammatory disease, or mental health.

We realized that we wanted to work with the top hospitals in the world because that's where people experience their most intense and costly healthcare events. We chose the extreme high end of healthcare such as heart attacks, strokes, resistant "super-bug" – and therefore life-threatening – infections, and major bleeding and severe pain. These are among the most compelling and challenging elements of the healthcare mix today.

It was also clear from a pharmaceutical point of view that most competitors focus on chronic disorders rather than the exciting field of hospitals – where a patient's average length of stay is six days in the U.S.

Suppose we could help hospitals cut mortality rates, give more effective care, and make patients more comfortable and less sick – even cut the length of a hospital stay? This provided us with a sense of uniqueness and focus – where we could start a company, become experts, and deliver value into a space with a strategy difficult to replicate. It also means it's a strategy difficult to execute – but real value creation is rarely easy or simple.

We don't make tablets or capsules – everything we offer is delivered to patients in intensive care units or during surgery intravenously, or by other transcutaneous routes. Patients may be unconscious. Some may have failing hearts, kidneys, livers, or other organs. To deliver and educate about our products, and confirm that our drugs are delivering on all fronts, we maintain an ongoing dialogue with healthcare professionals – hospital doctors, nurses, pharmacists, and administrators.

Where are we in terms of value pricing today, and why is that so critical for the future of healthcare?

Fifteen years ago, politicians were not allowed to say they wanted value in healthcare because it sounded callous or irrelevant. Technology providers – notably diagnostic, device, and drug firms – didn't talk about value because we hadn't learned how to prove value in our development programs.

Customers – the public and private healthcare systems around the world – weren't keen to talk about value because they didn't know how to look at their own data to prove that value was there.

But the past decade has witnessed a rigorous and accelerating debate. Now everyone is thinking more deeply about providing and paying for value. That's a good thing because it will drive improved healthcare performance and is potentially sustainable.

Around the world, we see hospitals and hospital systems starting to look at the patient experience and the care pathway from a value point of view. Physicians are discovering that their jobs can be extremely satisfying if measured in terms of patient outcomes and efficiency of delivery. For example, the Yale University Global Health

Leadership Institute, which we are privileged to work with, has demonstrated that we can potentially save the lives of more heart attack patients through improving human collaboration and the care process than we can by replacing one medication with a more effective one. So, as a technology firm, we are embracing the idea that integrating new technology, process of care, and provider behavior are all required for innovation – and we have to measure the economic impact of our products as well as the health outcomes impact.

Does it become more challenging at a certain size to maintain an entrepreneurial culture?

We have diversified our portfolio step-by-step, but we've kept an absolute focus on the hospital space. This channel strategy helps leverage resources and, therefore, can be very rewarding.

If we diversify the number of projects we're running too quickly, we run the risk of losing our entrepreneurial edge. If we start building big departments rather than focusing on customers via multidisciplinary project teams, the value we can create will go down. Almost every element of focus, planning, budgeting, and execution we do here is project-based because it allows multidisciplinary professionals to work together without boundaries toward one goal – to deliver something extraordinarily valuable to the customer – and do it again and again despite technology, regulatory, and competitive hurdles.

How robust is your pipeline for new products?

We believe we have one of the leading acute care hospital product pipelines in the industry. Our marketed products include the leading blood thinner used in heart procedures in the U.S., Angiomax. We have Cleviprex for severe sudden blood pressure spikes, and RecoThrom, which is used by surgeons to manage bleeding. We recently launched two drugs, Orbactiv and Minocin, for so-called “superbug” resistant infections. In addition, we have a range of exciting products in various stages of R&D.

Before we invest in new projects, we demand the prospects of real economic advantage and improvement in patient outcomes – conquering these life-threatening superbug infections, reducing bleeding during surgery, improving the safety of anesthesia, and managing patients' pain after surgery better than before. One challenge of looking after patients in a hospital is the mind-boggling complexity and speed of care in acute and intensive care units. Anything we can do with technology to reduce complexity – for example, to make the immediate effects of a drug more predictable – will help. We're trying to deliver products for caregivers that are easier to use, in addition to providing value and improved patient outcomes.

Would you touch on the intensive care unit and the cardiac cath lab, and how they reflect the innovation taking place at the company?

Our business started in the cath lab, where patients undergo potentially life-saving heart procedures, and is expanding into other areas of the hospital, such as the emergency room and the intensive care unit. Our products are therefore used in an environment where complex equipment is the norm, and complex care

scenarios evolve very rapidly. To educate our teams and clinical customers, we have invested in a world-class acute and intensive care hospital simulation laboratory at our global center in New Jersey. Providing opportunities to simulate acute care situations has been a great leap forward. People can learn all the intensity and complexity of care without risk. Use of our center – which has won several prestigious design awards – is a great way to build a bridge to the communities we serve.

This approach for our teams and potential customers creates ignition for learning, and we have seen tremendous benefit from that. People get excited in a simulated environment, especially if they have never worked in one in real life. They remember things better, and they become increasingly curious to learn and more competent at their jobs.

How have you fostered the strength of your teams and the management you have within the company?

We have an enormous amount of talent here – professionals educated in science, medicine, and business, and often in the pharmaceutical or device industries. We're also fortunate to have some great leaders and a very capable board of directors.

Our teams want to make a difference in healthcare. They love to work across functional boundaries – combining the best thinking about what the medical need is, how to develop data and products, and how to influence positive change in patient care.

We always ask, where is the most pressing need for improvement in care of a heart attack patient, a stroke patient, a serious infection patient, or someone undergoing surgery? How do we fulfill that need? How do we influence positive change among our customers so they can use the technology and measurably improve their effectiveness? We judge our contribution not only in sales numbers but also routinely by estimating the number of lives saved, the amount of suffering alleviated, and the efficiency and cost of care incurred by our customers. We incorporate these metrics right into our operating dashboards.

Do you anticipate that we'll have a series of large health systems going forward and will you need to be part of that system to be competitive for the future?

There has been considerable consolidation of hospitals and hospital systems over the past 10 years, which is likely to continue. For the major centers, size and scale does matter, if for no other reason than that the capital equipment we now use in intensive care medicine is so sophisticated and costly.

Consolidating hospitals and having patients go to a large center rather than small, local units has driven better results, but it also brings about the challenge of patients finding the experience unsettling – hence the emergence of surveys that measure patient experience and satisfaction. We believe that some of our products such as Orbactiv, which allows patients to be cured of certain serious infections with a single treatment, and Ionsys, which potentially empowers patients to manage their post-operative pain more simply than before, may improve that patient experience considerably.

Beyond consolidation of hospitals, particularly in the U.S., China, and Germany, there is the notion of Hub and Spoke healthcare, where smaller units can serve the local population quite adequately and refer them to the big center if they need something special.

The other dimension is so-called population health. If an insurance company or a healthcare system is covering several million people, then their liability necessitates a balanced approach to provide a range of services, from immunization of infants through treating heart attacks or cancer in adults. We don't want to bring elderly people to the center for a flu injection when it can be done at the local pharmacy, for instance.

We're seeing smart initiatives from pharmacy chains and others to deliver local care. Emergency centers are popping up that are potentially outstanding sources of first-touch care, augmenting the traditional U.S. model of physician specialty offices.

Between these poles, intermediate-sized hospitals may provide key nodes in the system. We have to continue to create coordinated networks for care that can lead to decreased cost and better quality outcomes.

What are the key ingredients to driving company leadership?

For a small- to medium-sized company like ours, one of the most important ideas is a clear sense of purpose and of resilience. One big role of a company leader is to stay constant through the storms. The firm, our customers, and shareholders have the right to expect competence, consistency, transparency, and mutuality through good times and bad. That's how trust is built and maintained.

The overall leader must sense and respond to changing conditions, so a high level of responsiveness is a big part of the job.

We're privileged to be given leadership jobs – the rewards and recognition are gratifying. But we have to be careful not to believe our own press; we have to remember that others have enabled us to lead and that many rely on our service, especially in healthcare.

You played major league rugby before going into medicine. Did your athletic experience and the team mentality influence how you manage, and do you see that as an ingredient to your style?

It certainly taught me about the need for humility when things are going well and resilience when they are not. Leadership starts with envisioning what's possible – specifically enough to get others to see it. Theory is not too helpful when you are trying to move the ball down the field. Getting everyone on the team to see and act on the initiative is essential, and not easily attainable. Helping colleagues to break the problem down and take strides toward the goal are key steps – in business and in sports.

What is your most important focus as you look to the future?

We have to build trust – with payers, administrators, caregivers, patients, and their families. Competence, consistency, transparency, and mutuality will get us there. And then the possibilities to improve patients' outcomes and make healthcare affordable to all are increased dramatically. That is our focus today and for the future. ●