Phillip Dellinger

Straight talk with… Phillip Dellinger

Phillip Dellinger has seen his fair share of people go into septic shock. As head of the division of critical-care medicine and director of the medical and surgical intensive care unit (ICU) at Cooper University Hospital in Camden, New Jersey, Dellinger ensures that doctors follow best practice when treating sepsis. But his influence on sepsis protocols goes far beyond the US Northeast. In 2002, Dellinger, along with Graham Ramsay of Anglia Ruskin University in Chelmsford, UK, and Mitchell Levy of Brown University's Alpert Medical School in Providence, Rhode Island, proposed both the concept and the plan for the Surviving Sepsis Campaign, a massive international effort aimed at improving the treatment of severe sepsis and reducing the high rate of mortality associated with the condition.

Ten years on, the Surviving Sepsis Campaign has successfully developed a series of best-practice criteria—the International Guidelines on the Management of Severe Sepsis and Septic Shock, which are currently being revised under Dellinger's leadership—as well as engaged physicians and the general public around the world in a broad educational program to warn about the threat posed by the disease. The campaign has also engendered controversy—notably, accusations that the initiative served as little more than a marketing tool for Eli Lilly, the manufacturer of Xigris (drotrecogin alfa), which was the only approved therapy specifically for the treatment of sepsis over the past decade. But Dellinger stands by the campaign's records, and he argues that it has helped saved countless numbers of people from a deadly disease. He spoke with **Roxanne Khamsi** about the struggle to catalyze change in the sepsis field.

What is the history of the Surviving Sepsis Campaign?

The campaign began in 2002, and it was originally administered by the Society of Critical Care Medicine, the European Society of Intensive Care Medicine and the International Sepsis Forum. It subsequently created the first set of guidelines in 2004 and began a performance improvement program internationally.

What goals have you set?

We targeted a very ambitious goal of 25% reduction in mortality within five years. We've come pretty close to it. Between January 2005 and March 2008 we saw a 19% relative reduction in mortality in 165 hospitals across the world.

In the absence of a drug that turns things around, what explains this improvement?

What we have is more awareness, earlier identification and more rapid administration of antibiotics and more fluids being administered. And I think it's likely that those are the sepsis-specific things that have made a difference. Our ventilatory support is better across the board; nutrition is better.

How was the campaign's former support from Lilly and other drugmakers perceived?

Notable academics were concerned about the industry funding, even with the transparency and lack of industry involvement [in creating the guidelines]. But the 2008 guidelines were published without industry funding, and the forthcoming 2012 guidelines will be, too. The goal recently was to totally strip the Surviving Sepsis Campaign from any association with industry funding, which has now been done. Now we are funded by the Gordon and Betty Moore Foundation.

The campaign's new sepsis guidelines are expected this fall. How do they compare with the 2008 guidelines?

We've had major changes in our vasopressor recommendations and our fluid recommendations. We've added a nutrition section and changed our glycemic control section. The updates are all clinical-trial based.

How does sepsis treatment differ globally?

The primary differences would be that in some places colloids, such as albumin [used in fluid management], would be less available. Additionally, clinics differ in the ability to transduce catheters in the vascular system to obtain pressures or measure flows. Activated protein C would have been a good example while it was on the market; it was [mostly] available in more developed areas. Another thing that varies is where the patients are treated, and that is based on how many ICU beds are in a hospital.

What do academic researchers fail to appreciate about sepsis?

That there's not just one fix for the cells' inability to utilize oxygen in the case when there is cellular dysoxia [altered oxygen use] in sepsis.

And what are the things that pharma fails to grasp about sepsis?

That there needs to be a better approach to the experimental design of studies. I think that patient selection has not been adequate. Patients have been enrolled in clinical trials based on clinical syndromes, and step 1 is to identify a biomarker that is present in severe sepsis. Then get a drug or technology that targets that molecule, and then measure the presence of that molecule in the blood of the patient with severe sepsis before you give the drug.

Is there any prospect that the campaign might nurture that approach?

We currently don't work with pharma because we currently are not involved with clinical trials.

Is that something that might change?

I don't think there are any plans to get involved with clinical trial design. We just spent four or five years doing away with any liaison with industry because of the guidelines, so there would be hesitation in going back in the other direction.