

Lowell Satler, MD

Dr. Satler discusses his facility at the Washington Cardiology Center and their role in ushering in new treatments, devices, and education, specifically for treating structural heart disease.

What can you tell us about your practice and your facility at Washington Cardiology Center?

I am the director of interventional cardiology at the Washington Hospital Center, and our group, the Washington Cardiology Center, is a private practice based at the Washington Hospital Center. Our program is involved with more than 4,500 percutaneous coronary interventions (PCIs) per year. We have a strong emphasis on acute coronary syndromes, and we treat approximately one ST-elevation myocardial infarction (STEMI) per day in the cardiac catheterization lab. Our Code Heart program involves the rapid transport of patients with STEMI to the catheterization lab. We integrate our services with a one-call contact system, which includes four helicopters, as well as ground ambulances, that are primed to respond to acute vascular emergencies (predominantly STEMI). Three of the helicopters are based at satellite remote locations to reduce the transfer time and thereby reduce the door-to-balloon time. We have recently integrated our system with the District of Columbia (DC) Emergency Medical Services such that all of the suspected STEMI in DC are transported only to primary PCI hospitals to reduce door-to-balloon time.

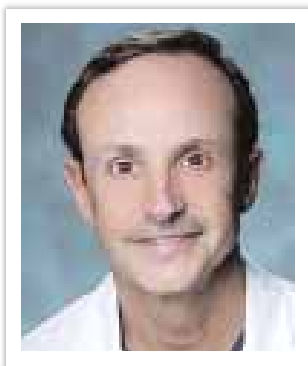
We are additionally evaluating new tools to transfer electrocardiograms in the field to the hospitals. This will involve cellular phone technology that transmits live video to visualize the electrocardiograms and rhythm strips in real-time. This will also allow the physician to communicate with the patients as well as the emergency medical service providers to obtain additional clinical information.

What areas of cardiology need the most attention from physicians and industry in the next several years?

I believe that in the future, procedures will be based on a combination of scientific evidence, physician clinical experience, and patient preference. Outcomes are in part related to procedure volume of clinicians and hospitals. The direction in which we are heading is somewhat disappointing—allowing every hospital, independent of their volume or level of expertise, to provide mul-

tiple services. This direction is being driven by hospital administrators. For example, it is not realistic that every hospital will need to be PCI-capable to provide cardiology services to the community. We will need to establish better networking with more centralized health care delivery; this approach improves outcomes, efficiency, and likely reduces cost.

Similarly, continued regulation of the introduction of new technologies is necessary to establish and monitor clinical efficacy and safety. Joint interactions between physicians, scientists, industry, the Food and Drug Administration, and insurers remain important to rapidly allow the introduction of important new therapies, while limiting access to devices that fail to clearly improve clinical outcomes.



There has been much discourse during the past year about the outcomes and utility of drug-eluting stents (DES), as well as significant data from several studies. Has the time come for consensus about DES and a focus on new DES technology and applications?

Clearly, DES have had a major impact on restenosis in reducing the need for repeat hospitalizations and, potentially, costs. Currently, there is not much difference between the different DES platforms in terms of efficacy. Safety has become a paramount concern, and the ability to interrupt dual-antiplatelet therapy in a predictable fashion has not been clearly demonstrated. We anxiously await the next generation of DES with bioerodable polymers that may reduce concerns about the need for prolonged dual-antiplatelet therapy.

Better pharmacology is on the horizon with the introduction of some of the newer thienopyridines; however, they will not affect the need for prolonged dual-antiplatelet therapy.

What is the current focus of your research energy?

First, I am very interested in structural heart disease. Although the benefits of percutaneous atrial septal defect closure are clear, patent foramen ovale closure is still under evaluation. We are very careful about not

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implanting percutaneous devices off-label; we encourage patent foramen ovale patients to participate in clinical trials. Left atrial appendage closure may offer a unique opportunity to eliminate the need for oral anticoagulants by reducing future strokes.

Percutaneous aortic heart valves are a source of great interest. We have been an active participant in the Edwards PARTNER trial, which appears very promising for patients with critical aortic stenosis who are at high risk for aortic valve replacement. Hopefully, if the clinical trial supports efficacy, this technology will be evaluated in low-risk patients.

We continue to carefully watch outcomes data regarding carotid stenting. The data seem to have improved over time, which is most likely due to better patient selection and improvement in operator experience.

We are also most interested in communication with telecardiology. We have been working very closely with industry for several years to securely transfer different types of imaging files via the Internet. The secure digital transfer of coronary angiograms via eMedcon has successfully allowed us to quickly interact with other health care providers to assist with management of complex coronary disease. The ability for quick assessment is paramount in reducing cost and improving patient care.

Finally, we have a strong presence in medical education through the existing standard methods (ie, large

conferences, such as CRT). However, the future of education will also be dependent on communication using the Internet. Web-based programs enable speakers to participate in our catheterization conferences on a weekly basis from their offices. We invite investigators who have recently completed important clinical trials or published manuscripts to present them live at our cath conference using WebEx. We believe that having direct access to the authors improves our understanding of their presentations.

The percutaneous valve space has witnessed recent industry changes and mergers. Can you provide some insight on when we might see percutaneous valves as part of clinical practice in the United States, and what milestones still need to be achieved?

More data still need to be obtained regarding the outcomes of these patients. Our preliminary observations suggest that the percutaneous aortic valve will be an alternative therapy in these critically ill patients with aortic stenosis.

We have completed randomization in more than 90 patients, and we have been very impressed with the speed of recovery in the percutaneous valve group. I am optimistic that percutaneous valves will become an important therapeutic option for patients, not only those at high risk, but ultimately to those at low risk as well. ■

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