

DRUG-ELUTING STENT SOLUTIONS

The Stentplus™ Patient Success Program

This monthly column in Cath Lab Digest reviews important points of distinction in drug-eluting stents (DES), from characteristics to techniques, so that physicians have valuable and relevant information about this revolutionary technology.

By Dr. Adhir R. Shroff and Peter T. Kondos, BS, RT

Dr. Adhir R. Shroff is an Assistant Professor of Medicine at the University of Illinois – Chicago Medical School; Director of the Cardiovascular Catheterization Laboratory at the University of Illinois – Chicago Medical Center; and Attending Physician at Jesse Brown VA Medical Center. He received his cardiology training, including interventional cardiology, at Harvard Medical School’s Beth Israel-Deaconess Medical Center. He completed his Master’s degree in Public Health in 2004 at the Harvard School of Public Health. He joined the faculty in 2004. Dr. Shroff is board-certified in internal medicine, cardiovascular disease and interventional cardiology. His research interests are in quality of care initiatives in interventional cardiology.



Mr. Peter T. Kondos is the administrative director of cardiovascular-pulmonary services at the University of Illinois Medical Center in Chicago. He has 30 years of experience in the catheterization laboratory. Kondos is particularly interested in issues related to new advances in cardiology, patient-staff safety, and staff education and retention.

Q The University of Illinois Medical Center and Jesse Brown VA Medical Center were the first hospitals in Chicago area to participate in the recently launched Stentplus™ Patient Success Program, a dual anti-platelet therapy compliance program for patients who have received a drug-eluting stent (DES). What interested you in the program, and why is your hospital participating?

A **Shroff:** I was excited to learn that Boston Scientific is working to address patient non-compliance with dual anti-platelet medications, in light of recent concerns about stent thrombosis. The Stentplus Program allows us to reinforce with patients the importance of taking their anti-platelet medications appropriately and continuously. The program was attractive to us because it is available to all DES patients – regardless of brand – and materials are provided free of charge by Boston Scientific.

Kondos: This program is a benefit not only to patients — who may decrease their chances of hospitalization due to stent thrombosis— but also to myself as an administrator of cardiovascular services and to the medical center, as we may avoid incurring the cost of treating patients for an event that could have been avoided. The Stentplus Program allows us to address patient non-compliance at all levels — educational, social and financial.

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Q **The American College of Cardiology/American Heart Association/Society for Cardiovascular Angiography and Interventions (ACC/AHA/SCAI) guidelines recommend that clopidogrel should ideally be continued up to 12 months in all DES patients who are not at risk for bleeding. Why is it so important for DES patients to adhere to a regimen of dual anti-platelet therapy drugs?**

A **Shroff:** The ACC/AHA/SCAI recommendations are based upon large meta-analyses and registry data that show that one of the most common causes of stent thrombosis — sub-acute or late stent thrombosis — is premature discontinuation of anti-platelet therapy.

Q **In general, why don't patients take their anti-platelet medications?**

A **Shroff:** There are several reasons. First of all, patients receive so much information while they are in the hospital, and they do not always leave with a good understanding of why they need to take each drug prescribed. In our experience, the most common time patients become non-compliant with their prescription is right after discharge. They either don't get their prescription filled or they may simply forget to take it each day.

Prescription drug costs are a major barrier to prescription compliance for many people, especially those on a fixed income or with a low income. We performed a pilot study at our Veteran's hospital in which we found that 20 percent of patients were not taking their clopidogrel for the prescribed duration, even when the medication was free. I have to only imagine what those rates would be in the private sector for patients with little or no insurance.

Furthermore, sometimes there is confusion among other health care providers about the importance of anti-platelet medication. For example, we have had several patients with stent thrombosis who stopped their Plavix™ because another physician instructed them to do so prior to a procedure or because the patient was having side effects.

Q **Is the Stentplus program making a positive impact at your institutions? If so, how?**

A **Shroff:** It's definitely making a positive impact among our cardiology community. It augments and adds consistency to our patient-education process, and reinforces the quality aspect of the interventional program. For a long time, we associated quality with angiographic outcomes and immediate complications, but the long-term care sometimes was overlooked. The Stentplus Program sends the message that our patients are still under our care after they have left the hospital.

Q **The Joint Commission on the Accreditation of Healthcare Organizations routinely audits hospitals on quality of patient care. Does the Stentplus Program help to improve your cath lab's quality of patient care?**

A **Kondos:** Yes. As patients become more compliant with their medications, we are improving our quality of patient care. One of the quality indicators in the ACC/PCI registry is re-intervention, so this database will help us to quantify the impact of the Stentplus Program.

Q **What tools has the Stentplus Program provided to help your DES patients stay on the dual anti-platelet therapy that you prescribe for them?**

A **Kondos:** The educational material is written at the appropriate level for our patients, who are not always in tune with medical terminology, so they can learn about their stent and the reason for its placement. The program includes a DVD that provides patient education about coronary artery disease, percutaneous coronary interventions and stenting, and the importance of anti-clotting medication. The DVD is now part of our in-house video program, so all patients view it prior to discharge. Patients can also take the

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DVD home to watch with family members, who are critically involved in helping with compliance by refilling, picking up and administering medications. The program also provides tools to clearly communicate the full duration of their prescription and remind them to take it each day and fill prescriptions each month.

Q **The cost of dual anti-platelet therapy medications is an important factor in explaining why some patients prematurely discontinue their therapy or don't take it at all. How is your institution addressing this problem with your DES patients who need financial assistance?**

A **Shroff:** If we think that a patient will benefit from a DES and we're relatively confident that he or she will adhere to the medication, we use the Stentplus Program to help patients to navigate the financial assistance options provided through private foundations, government programs and prescription discount cards. For example, the Partnership for Prescription Assistance (PPA) provides a single-point access for almost 500 public and private prescription assistance programs to help patients find the one that's right for them.

Q **How difficult was the program to implement with your staff?**

A **Kondos:** The program was easy to implement. I read the provided materials, met with representatives from Boston Scientific to learn about the program in detail, and then spent a few hours educating the cath lab staff. Implementation was without a hitch. Whether you are a physician, a nurse, or a technologist, the program is very easy to follow.

Q **What would you tell other institutions interested in implementing the Stentplus Program?**

A **Kondos:** The bottom line is that this program is the right thing to do. I believe those institutions who offer the Stentplus Program will be leading the way in terms of offering quality care. As administrators, we all care about the quality of patient care we offer at our institutions. The Stentplus Program offers you a way to enhance your service and support of patients, and you should look very closely at this program and how to integrate it into your hospital.

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