

Drug Eluting Stents: an Investigation of Current Practices and Adjunctive Treatments



Introduction

This April, the FDA approved the first drug eluting stent (DES) for *de novo* lesions in chronic obstructive coronary artery disease. The technology was embraced quickly since many experts believe the new stents will conquer restenosis, a problem which can complicate using bare metal stents. However, *de novo* lesions are a limited stent indication and trials are lacking for other applications. Nevertheless, DES are being chosen sporadically for these additional indications over bare metal stents with unclear effectiveness.

There are several considerations when deciding whether to use a DES over a bare metal stent - not the least of which is cost. These devices cost roughly three times more than bare metal stents. However, there are other factors playing into the decision of DES usage ranging from physiology to social policy. All of these factors contribute to the ultimate decision made by the cardiologist.

As more DES are brought to market and approved, it will become a challenge for manufactures to inform cardiologists about these exciting new technologies. Therefore, it is important to know what cardiologists look for in product information and factors that influence their decision for stent usage.

To better understand the DES market, Medcompare interviewed 156 cardiologists regarding their DES practices. We have uncovered DES usage patterns, factors in the decision of usage, and which adjunctive therapies are preferred.

Medcompare's *Drug Eluting Stents: an Investigation of Current Practices and Adjunctive Treatments* takes a closer look at DES and its effects on cardiology.

“For those who have been in angioplasty for awhile, it’s gratifying to finally have a phenomenal reduction in restenosis. It’s a great time to be in the field.”

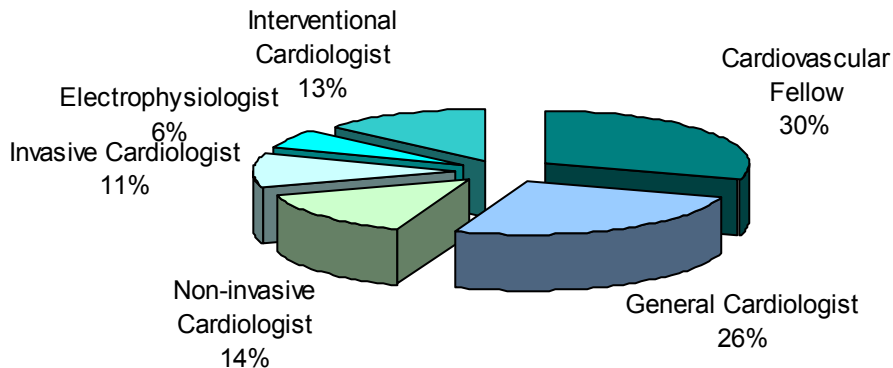
Dr. Jeffrey Moses, chief of interventional cardiology at Lenox Hill and Vascular Institute

Methodology

This report is based on a survey of 156 cardiologists attending the American Heart Association meeting in Orlando, FL November 9-12, 2003.

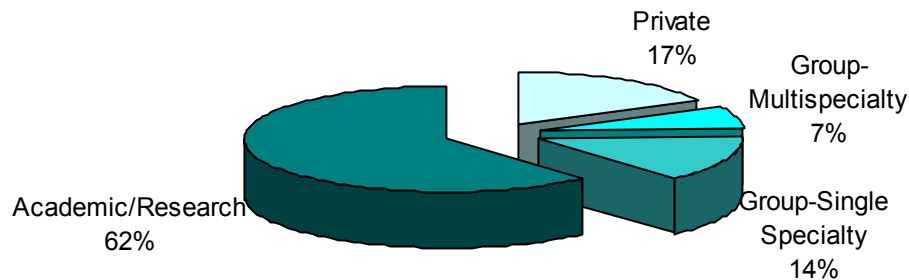
Survey participants were asked 20 closed ended questions regarding their knowledge and usage of drug eluting stents. Additionally, participants were asked demographic questions to evaluate their practice setting and cardiology experience.

Which title best applies?



24 percent of respondents are either interventional cardiologists or invasive cardiologists and 70 percent of responders are generalists.

What is your practice setting?

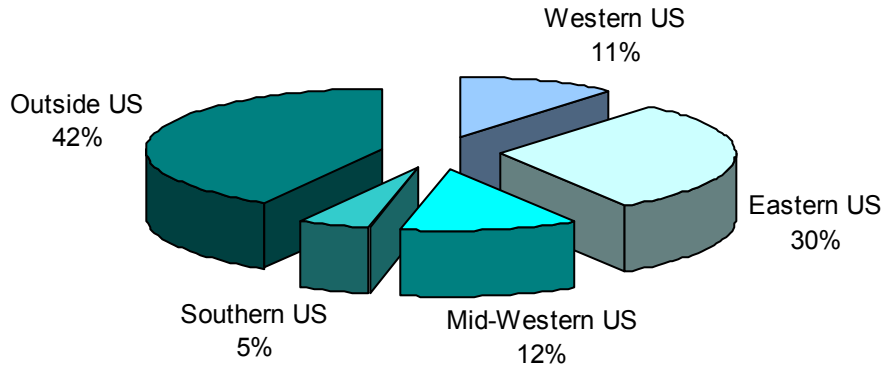


The majority of survey takers are in an academic or research setting. This group typically are early adopters of new technologies and have vast knowledge of current literature.

n=156

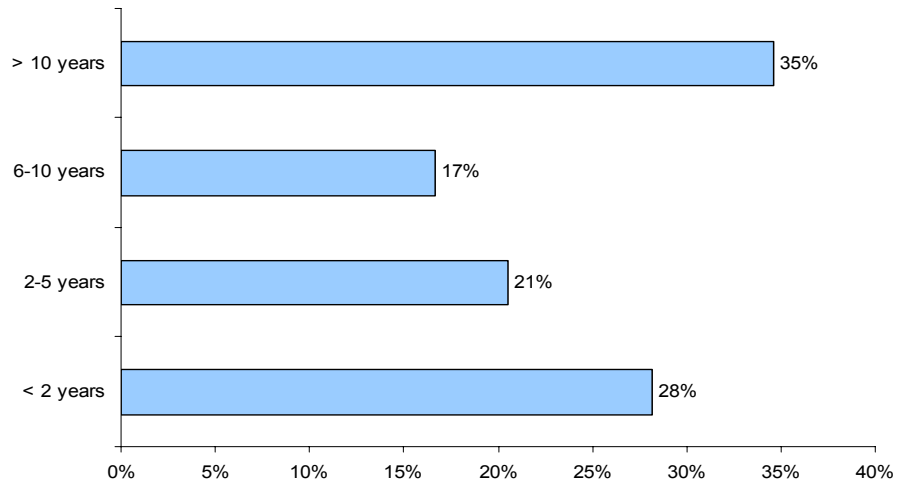
Where is your practice located?

The breakdown of survey takers reflects the distribution of cardiologists in the US regions.



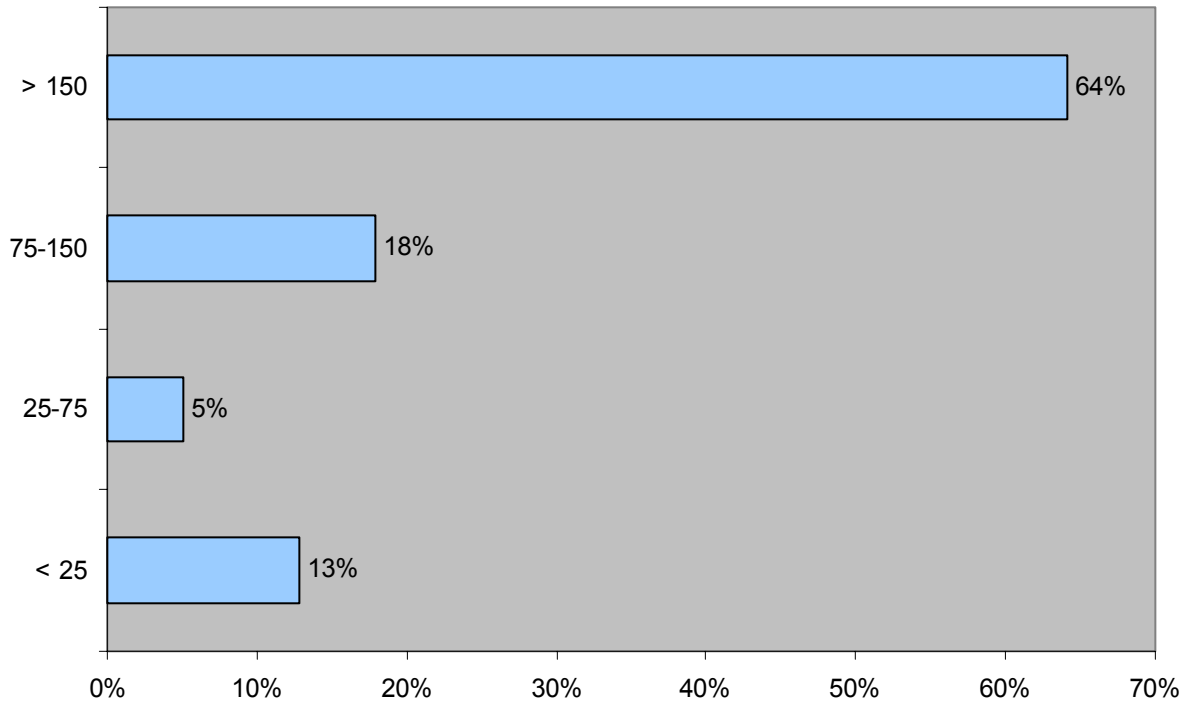
52 percent of respondents have been in practice more than 5 years.

How many years have you been in practice?



n=156

How many interventions do you perform per year?



True Interventionalists

82% of our interventionalist survey respondents perform the required > 75 interventions per year to be regarded as active interventionalists based on AHA/ACC guidelines

n=39

Questions

Where did you first hear about DES?

- Company Representative
- Journal Literature
- Direct Marketing
- Colleagues
- Industry Hosted Dinners

Which of the trials have you reviewed?

- RAVEL
- SIRIUS
- TAXUS II

What feature of DES do you find most impressive?

- Target Lesion Revascularization (TLR) rate
- In-stent restenosis rate
- In-lesion restenosis rate
- Late-loss
- Binary restenosis rate

What further clinical trial results would be of interest to you? (check all that apply)

- Complex small vessel (<2.5 mm) lesions
- Acute MI applications
- In-stent restenosis lesions
- Chronic total Occlusions
- Saphenous Vain Graft (SVG) occlusions
- Previous brachytherapy treated lesions

In your practice, who decides on DES usage?

- Operator
- Referring Physician
- Hospital
- Practice Guidelines
- None of the above

For which of the following activities do you use the internet?

- Online journal subscriptions
- Literature review
- Learn more about medical devices

How do you decide when to use a drug eluting stent vs. a regular stent?

- Patient comorbidities (diabetes etc.)
- Target vessel size
- Lesion length
- Target vessel locations
- Cost
- Insurance Coverage

In what situations do you consider a DES? (check all that apply)

- Single vessel disease large lumen (3.0-4.5mm)
- Single vessel disease small lumen (<2.5mm)
- Acute MI
- Bifurcating lesions
- Tortuous lesions
- In-stent restenosis
- Chronic total occlusions
- Left main stenosis (protected or unprotected)
- Saphenous vein graft stenosis
- Previous brachytherapy treatment lesion

Since the release of DES, have your bypass referrals

- Decreased >50%
- Decreased 25-50%
- Decreased 0-25%
- Remained unchanged
- Increased

How have the recent FDA warnings for stent thrombosis changed your approach to DES?

- No significant change
- Decrease in DES by <25%
- Decrease in DES by 25-50%
- Decrease in DES by >50%

When using DES, in what percentage of cases do you utilize IVUS after deployment?

- >90%
- 75-90%
- 50-75%
- 25-50%
- <25%

When using DES what loading dose of Clopidogrel do you give?

- 300mg
- 600mg

When using a DES, what percentage of cases do you use a IIb-IIIa glycoprotein inhibitor (Aggrastat, Integrilin, Reopro)?

- >90%
- 75-90%
- 50-75%
- 25-50%
- <25%

When using DES, what percentage of cases do you use Bivalirudin (Angiomax)?

>90%

75-90%

50-75%

25-50%

<25%

When using Heparin after DES, what percentage of cases are low molecular weight heparin?

>90%

75-90%

50-75%

25-50%

<25%

If you have any questions about this survey or any of Medcompare's other marketing services please contact us at:

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