



# Trends-in-Medicine

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## SUMMARY

There appears to be no growth in the arterial closure device market. Cardiac cath labs said usage has been flat for the past six months, and the outlook is for that trend to continue. Perclose remains the slight favorite, with the rest of the market split fairly closely among AngioSeal, VasoSeal and Duett, though a few labs are eschewing most if not all of these in favor of the Syvek patch.

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## Trends-in-Medicine

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## Arterial Closure Devices

Managers of 11 large cardiac cath labs were interviewed about their use of arterial closure devices. The attitude toward these devices has cooled considerably over the past four years. In 1998, there were three devices on the market – Kensey Nash's AngioSeal (licensed to and marketed by St. Jude), Datascope's VasoSeal, and the Abbott/Perclose suture system. The devices were catching on quickly, with strong patient demand. Cardiac cath lab managers estimated that the devices were being used in an average of 33% of procedures, and they predicted that usage would continue to grow. Perclose appeared to have the lead, with AngioSeal and VasoSeal battling for second place, but doctors were still experimenting with all the devices.

Today, cardiac cath labs have additional choices, including Vascular Solutions' Duett, Sutura's vascular suturing system, and Marine Polymer Technologies' Syvek manually applied surface patch (which uses a marine toxin to speed coagulation). However, cath lab managers reported that their interest in the devices and their use of them has dropped off. Eight of the 11 managers interviewed use a closure device for less than 10% of patients today. A West Coast manager explained, "Our usage is low because a lot of patients have venous sheaths in and are on IIb/IIIa inhibitors. Only one doctor here routinely uses them. We use them more frequently in angiograms than for PTCA." A Pennsylvania manager said, "Arterial closure devices are used for an extremely small percentage of our patients, mostly only obese patients."

Perclose is still the most popular device, with nine labs using it. AngioSeal, VasoSeal and Duett are used by only three labs each. Two of the Duett users added this device within the past six months. Two labs use the Syvek patch, and one tried it and didn't like it. (Note: Most labs use Perclose plus one or two other devices).

### Procedures Performed with Arterial Closure Devices

Device	Usage
Perclose	52%
Duett	15%
AngioSeal	12%
VasoSeal	11%
Syvek	10%

Cath lab managers offered some interesting comments about these devices, including:

- > **Arkansas.** “We still have a couple of doctors doing Perclose, but it is very expensive, so use is not increasing.” The manager of a Kansas lab that uses only Perclose said, “When we finish our current Perclose inventory, we will try the new Perclose device.”
- > **Florida.** “We use Perclose sparingly, and occasionally, we use a Syvek patch post-intervention, but that’s mostly a nursing decision. Our physicians are conservative and like to keep patients around to assess their renal function and make certain the sedation has totally worn off. Now that we have downsized our catheters to 4F and 5F for diagnostics, that puncture site becomes less of a problem.”
- > **Illinois.** “We use Perclose for 95% of cases, VasoSeal for about 5%. We’re very satisfied with Perclose. We like VasoSeal, but we are more comfortable with Perclose and feel more secure with it.”
- > **Minnesota.** “We currently use Perclose and Duett. We’ve had good initial results, but the late events 24 hours out are still too high. We may try some AngioSeal. We need better real world results for the devices to live up to their potential.”
- > **New Jersey.** “Today, we use the Syvek patch for 95% of our cases. We call it the ‘slime patch.’ Four years ago we were using Perclose for 73% of the time that we used a closure device, and AngioSeal for 27%.”
- > **North Carolina.** A manager who is using Perclose, AngioSeal and Duett said, “We have the fewest failures with AngioSeal and Duett, but a slight majority of our doctors prefer Perclose. Physician preference is the greatest influence in choice of device. Our daily process doesn’t allow us to take full advantage of the early discharge these devices permit.”
- > **Washington.** “We had been using Perclose, but we stopped that altogether because it was more difficult to deploy, there were more problems with it, you have to do a lot to maintain proficiency with it, and a physician has to do it. We just started using Duett. We try to do as many patients as we can, but there are limitations with the device. One advantage is that it can be deployed by staff.”

The outlook is for use of arterial closure devices to remain flat for the rest of this year. Nine managers insisted there would be no changes in their use of the devices, one indicted usage would decline, and would expected a slight increase. A North Carolina manager said, “We’re using three systems now -- Perclose, AngioSeal and Duett -- and in the future we may try to standardize to two (Perclose plus one) to get a better price.” A Midwest manager said, “Our use hasn’t changed in the last six months, and it will remain flat.” A Florida manager said, “A change in usage is unlikely. There is no reimbursement for in-patient use.” An Oklahoma manager said, “We are moving to 4F catheters for angiography and 6F for PTCA, so usage is going down.” ♦