

Device Makers Target High Blood Pressure

By JON KAMP

Medical devices treat some major heart problems, including clogged arteries and rhythm disorders, but there has long been a big omission: high blood pressure.

Change is under way. Device makers including Medtronic Inc. and Boston Scientific Corp. are targeting hypertension, or high blood pressure, and there are signs other big companies are also interested. It is a potentially lucrative opportunity, with an estimated 74.5 million afflicted adults in the U.S. contributing to what prescription data tracker IMS Health estimated was a \$25.2 billion global market for hypertension drugs in 2009.

Given that potential, "it's hard for the major players to sit on the sidelines," said Hank Plain, a partner with venture-capital firm Morgenthaler Ventures. His firm invested in private hyper-

tension device company Ardian Inc., which Medtronic is buying.

Doctors today employ drugs and urge lifestyle changes like low-salt diets to lower blood pressure. But these methods don't always work, leaving patients with heightened risk for problems like strokes and kidney damage.

Some device-based approaches approved outside the U.S. tap into neurological systems that influence blood pressure. Work remains to gather evidence that can win over U.S. regulators, but the market's potential is drawing strong interest.

Days after Boston Scientific talked up hypertension at a November investor conference, Medtronic announced plans to buy Ardian for \$800 million, plus future revenue-based milestone payments. Medtronic already owns 11% and expects to close on the rest within weeks.

Ardian makes a radiofrequency catheter that is threaded into renal arteries to carefully burn tissue and deactivate nerves linked to hypertension. Results from a 106-patient study released in November showed success in reducing blood pressure at six months with few complications among patients for whom drugs weren't working.

These data could help jumpstart international sales, as Ardian has long had European approval but was waiting for more medical evidence.

U.S. Study Is Planned

The company plans to soon start a U.S. study, which could take about 18 months, aimed at domestic approval. It won Australian approval in November.

Medtronic is paying a hefty sum for a small company, but it had to outbid competition.

Ardian Chief Executive An-

drew Cleeland wouldn't name names, citing confidentiality agreements, but he and Mr. Plain both said other big device companies plus some large drug makers were also trying to buy Ardian. "It was a very competitive process," Mr. Plain said.

Boston Scientific declined to say whether it was a suitor, but it wants a piece of the market. At the Nov. 19 investor conference, Chief Executive Ray Elliott highlighted hypertension while saying the company was "both internally and externally focused on unique, innovative, alternative treatments including renal nerve ablation"—Ardian is taking that approach—"and electrical stimulation."

Boston Scientific already has catheters and electrical stimulation technology used for other purposes.

Mr. Elliott added Tuesday, while speaking at a J.P. Morgan conference, that the company

started work on hypertension 18 months ago and has a full year of research and development work under its belt. "This is a huge fit for us," he said.

Boston Scientific also could take a look at privately held CVRx Inc.

That company makes a pacemaker-like device that connects to neck arteries to trigger the body's natural blood-flow regulation system, and aims to treat both hypertension and heart failure.

CVRx gained European approval more than three years ago and has been building medical evidence to back its Rheos system. The company's big U.S. study has hit setbacks by failing two of five main goals, including a safety goal, Chief Executive Nadim Yared said, which likely means the company needs another study to win approval here. He said he believes study design was the problem.