Medical Coverage Policy

Wireless Pressure Sensors in Endovascular Aneurysm Repair

☐ Device/Equipment ☐ Drug ☒ Medical ☐ Surgery ☐ Test ☐ Other

Effective Date:	3/1/2011	Policy Last Updated:	4/17/2012

☐ **Prospective review is recommended/required. Please check the member agreement for preauthorization guidelines.**

☒ **Prospective review is not required.**

Description
The goal of abdominal aortic aneurysm repair is to reduce pressure in the aneurysm sac and thus prevent rupture. Failure to completely exclude the aneurysm from the systemic circulation results in continued pressurization. An endoleak (persistent perfusion of the aneurysmal sac) may be primary (within the first 30 days) or secondary (after 30 days). Endoleaks lead to continued sac pressurization and therefore may be considered technical failures of endovascular aneurysm repair (EVAR).

Wireless implantable pressure-sensing devices are being evaluated to monitor pressure in the aneurysm sac. These implanted devices use various mechanisms to wirelessly transmit pressure readings to devices for measuring and recording pressure. These devices have the potential to improve outcomes for patients who have had endovascular repair. They may change the need for or the frequency of monitoring of the aneurysm sac using contrast-enhanced CT scans. They may improve postoperative monitoring. However, the accuracy of these devices must be determined, and potential benefits and risks must be considered and evaluated. At present, two types of systems are being evaluated: radiofrequency (CardioMEMS EndoSure™) and ultrasound-based (ImPressure™) systems.

Data are currently insufficient to indicate if use of this device improves clinical outcomes. The accuracy of the device in those with various types of endoleaks needs to be determined with larger numbers of patients. Also, the performance over time needs to be addressed. Work is also needed to determine the type and number of devices that might best be used in monitoring. That is, because of sac compartmentalization a pressure-sensing device might not detect an endoleak. It also is not known if there might be important long-term complications from this implanted device.

Medical Criteria:
Not applicable

Policy:
Use of wireless pressure sensors is considered **not medically necessary** in the management (intraoperative and/or postoperative) of patients having endovascular aneurysm repair due to lack of medical literature to support its use.

Coverage:
Benefits may vary. Please refer to the appropriate Evidence of Coverage, Subscriber Agreement, or Benefit Booklet for applicable not medically necessary benefits/coverage.

Coding:

The following codes are **not medically necessary**:

34806
93982

CPT code 34806 is not to be reported in conjunction with 93982 as any study done at the time of insertion is included in 34806. 34806 includes deployment of the sensor, intraoperative calibration and any repositioning required.

Also Known As:
Not applicable

Published:
Provider Update, April 2009
Provider Update, August 2010
Provider Update, June 2012
References:

Blankensteijn JD, de Jong SEAC, Prinssen M, van der Ham AC, Buth J, van Sterkenburg SMM, Verhagen HJM, Buskens E, Grobbee DE. *Two-Year Outcomes after Conventional or Endovascular Repair of Abdominal Aortic Aneurysms.* The New England Journal of Medicine;June 9, 2005;352;23:2398-2405.

Greenhalgh RM, Powell JT. *Endovascular Repair of Abdominal Aortic Aneurysm.* The New England Journal of Medicine;January 31, 2008;358;5:494-501.

Schermerhorn ML, O'Malley AJ, Jhaveri A, Cotterill P, Pomposelli F, Landon BE. *Endovascular vs. Open Repair of Abdominal Aortic Aneurysms in the Medicare Population.* The New England Journal of Medicine;January 31, 2008;358;5:464-474.