



MASSACHUSETTS

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Medical Policy

Minimally Invasive Coronary Artery Bypass Graft Surgery

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Policy Number: 553

BCBSA Reference Number: 7.01.62A

Related Policies

None

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

Minimally invasive direct coronary artery bypass graft surgery (MIDCAB) may be considered **MEDICALLY NECESSARY**.

Other techniques for minimally invasive coronary artery bypass graft surgery, including but not limited to PACAB, hybrid CABG, or TECAB techniques, are **INVESTIGATIONAL**.

Prior Authorization Information

Commercial Members: Managed Care (HMO and POS)

Prior authorization is **NOT** required.

Commercial Members: PPO, and Indemnity

Prior authorization is **NOT** required.

Medicare Members: HMO BlueSM

Prior authorization is **NOT** required.

Medicare Members: PPO BlueSM

Prior authorization is **NOT** required.

CPT Codes / HCPCS Codes / ICD-9 Codes

The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's

contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes

CPT Codes	Code Description
33533	Coronary artery bypass, using arterial graft(s); single arterial graft
33534	Coronary artery bypass, using arterial graft(s); two coronary arterial grafts
33535	Coronary artery bypass, using arterial graft(s); three coronary arterial grafts
33536	Coronary artery bypass, using arterial graft(s); four or more coronary arterial grafts

HCPCS Codes

HCPCS Codes	Code Description
S2205	Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using arterial graft(s), single coronary arterial graft
S2206	Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using arterial graft(s), two coronary arterial grafts
S2207	Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using venous graft only, single coronary venous graft
S2208	Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using single arterial graft and venous graft(s), single venous graft
S2209	Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using two arterial grafts and single venous graft

Description

There are currently variations on techniques that are classified as “minimally invasive” coronary artery bypass graft (CABG) surgery. The surgery can be done under direct vision, with a mini-sternotomy or a mini-thoracotomy approach. These types of direct procedures have been termed minimally invasive direct coronary artery bypass (MIDCAB). MIDCAB is performed without cardiopulmonary bypass by slowing the heart rate to 40 beats per minute to minimize motion in the surgical field. The performance of a coronary bypass on a beating heart increases the technical difficulty of the procedure, particularly in terms of the quality of the vessel anastomosis. In MIDCAB, the predominant re-anastomosis performed uses the native internal mammary artery to bypass the left anterior descending (LAD) coronary artery. Bypass of the right coronary artery may also be possible in patients with suitable anatomy.

The surgery can also be performed endoscopically, whereby the internal structures are visualized on a video monitor, and the entire procedure is performed without direct visualization of the operative field. Cardiopulmonary bypass may or may not be used with this technique. This variation of minimally invasive CABG is called port access coronary artery bypass (PACAB) or total endoscopic coronary artery bypass (TECAB). Using this approach, theoretically, all sides of the heart can be approached. In many instances, only a single bypass of the LAD artery is performed, although multivessel bypass of the left and right coronary artery has been performed.

Summary

Given the clinical data summarized earlier in this document and the clinical support, MIDCAB (CABG with anastomoses hand sewn under direct vision) may be considered medically necessary. Given both the limited clinical data and the lack of clinical support, other minimally invasive approaches to CABG, such as TECAB are considered investigational.

Policy History

Date	Action
5/1/12	New policy describing ongoing coverage and non-coverage

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

References

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