



Effective Health Care

Transradial Versus Transfemoral Access in the Treatment of Acute MI with Primary PCI

Nomination Summary Document

Results of Topic Selection Process & Next Steps

- Transradial versus transfemoral access in the treatment of acute myocardial infarction with primary percutaneous coronary intervention is important, but other topics have higher priority for limited program resources. No further activity on this topic will be undertaken by the Effective Health Care (EHC) Program.

Topic Description

Nominator: Organization

Nomination Summary: The nominator questions the comparative effectiveness of transradial versus transfemoral access during primary percutaneous coronary intervention (PCI) in patients with ST-elevated myocardial infarction (MI).

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Population(s): Adults, 18 years or older, who present with ST-elevation myocardial infarction (STEMI) (for whom primary PCI is the preferred reperfusion treatment)

Intervention(s): Transradial access for primary PCI

Comparator(s): Transfemoral access for primary PCI

Outcome(s): Safety/Efficacy: Reductions in bleeding and vascular complications (postprocedural bleeding, other vascular complications, major adverse clinical outcomes such as death and MI), target lesion revascularization, and the secondary outcome of door-to-balloon times. Economic: Reduced hospitalization times and associated costs.

Key Questions from Nominator:

1. Is transradial access comparable to transfemoral access with respect to efficacy and superior with respect to safety in primary percutaneous coronary intervention in ST-elevation myocardial infarction patients?

Considerations

- The topic meets EHC Program appropriateness and importance criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- A 2009 systematic review that included 7,020 patients in 23 randomized trials identified several benefits of radial access, but stated the need for a large randomized trial to confirm these findings.

- The RIVAL study published in 2011 compared the two PCI approaches in over 7,000 subjects and found both approaches safe and effective for PCI.
- After the publication of the RIVAL trial, this topic was discussed at AHRQ's DEcIDE Cardiovascular Consortium's stakeholder meeting. The group stated that while there are definitely unanswered questions in the radial versus femoral domain, it is unlikely that an evidence synthesis of the available aggregate data will answer or move forward those questions in the absence of new data.