INAHTA Briefs

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Issue:	Variations in the optimal methods used to protect the heart from damage due to lack of oxygen during cardiovascular surgery suggests a lack of consensus among practitioners, particularly among thoracic surgeons and in VA cardiac surgery programs.
Title:	Optimal Temperature for Cardioplegia During Coronary Artery Bypass Grafting
Agency:	VA Technology Assessment Program (11 T), Office of Patient Care Services, Room D4-142, 150 S. Huntington Avenue, Boston, MA 02130; Tel: 857-364-4469, Fax: 857-364-6587
Reference:	VA Technology Assessment Program Report, Final Report, September, 2003. www.va.gov/vatap
Aim:	This qualitative systematic review addresses the optimal temperature in cardiopulmonary bypass and cardioplegia during cardiovascular surgery. Specific attention was given to defining the optimal method for myocardial protection during coronary artery bypass grafting (CABG).
Conclusions and results:	Seventeen published randomized controlled trials (one yielding two separate publications) met inclusion criteria for this review. The searches also identified three published analyses of large databases relevant to cardioplegia temperature, two of which used data from randomized controlled trials. Results from these studies support the ACC/AHA guidelines for CABG (1999).
Recommendations:	The ACC/AHA guidelines for CABG (1999) states "*no strong argument can currently be made for warm versus cold and crystalloid versus blood cardioplegia*" in patients with normal left ventricular function.
Methods:	The VA Technology Assessment Program (TAP) searched the MEDLINE®, HealthStar®, and EMBASE® databases on November 1999, June 2000, January 2001, and September 2003. The databases of the Cochrane Collaboration and the International Network of Agencies for Health Technology Assessment (INAHTA) were searched to identify existing assessments. Reference lists were examined to identify additional randomized controlled trials.
Further research / reviews required:	Additional research is needed to determine the optimal temperature for cardiopulmonary bypass and cardioplegia during cardiovascular surgery. Specific attention should be given to defining the optimal method for myocardial protection during CABG.
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