SUPPLEMENTAL MATERIAL

ONLINE SUPPLEMENT 1

Supplemental Methods

exp Carotid Stenosis/ OR (carotid adj3 (stenos$ or ulcer$ or plaque$ or narrow$ or obstruct$ or occlus$ or constrict$)).tw. OR (steno$ occlus$ or stenoocclus$).tw. AND exp Cerebrovascular Circulation/ OR (cerebr$ adj3 (circulat$ or Autoregulat$ or reactivity or reserve or blood or flow or volume or resistance or pressure or hemodynamic$ or vasomotor$)).tw. OR(regional CBF or rCBF or CVR or CPP).tw. AND exp Stroke/ OR Stroke$.tw. OR cerebrovascular.tw. OR ((brain or vascular or lacunar or venous or cerebral or isch?emic) adj2 (accident$ or infarct$ or event$ or attack$)).tw. OR (cva or cvas).tw.

Legend: Representative primary search was conducted through MEDLINE using the terms above in an Ovid Medline Search from 1948 to September Week 4 2011.

ONLINE SUPPLEMENT 2

Supplemental Methods

Study Selection Process:

After removal of duplicate manuscripts, all potentially eligible manuscripts were screened by a single reader (A.G.) based on title and abstract content. After excluding manuscripts that did not meet the inclusion criteria, additional related manuscripts were identified via related articles, cited reference, and bibliography searches. The titles and abstracts of these manuscripts were reviewed and any additional potential manuscripts were identified. All screened manuscripts were carefully read in their entirety by three readers (A.G., J.L.C, and M.H.) for final inclusion.

Data collection process:

Two data extractors (J.L.C. and M.H.) reviewed the included manuscripts and populated a form collecting key data from each study including cohort age, gender, location and severity of carotid stenosis or occlusion, presence or absence of symptoms, CVR testing modality, type of vasodilatory stimulus, mean follow up length, and ischemic endpoint(s). If possible, for the purposes of this meta-analysis, the data extractors divided CVR measures into normal or impaired according to the classification scheme described in the manuscript. Based on this classification into normal and impaired CVR, the data extractors classified the number of patients and ischemic events in each group. If this raw data breakdown was not readily available in the manuscript, an attempt to directly contact the author was made. All data collected was confirmed by a third reader (A.G.) with discrepancies resolved by consensus.