Rapid Response Report:

**SUMMARY OF ABSTRACTS**

**TITLE:** Diagnostic Computed Tomography Angiography for Adult Patients: Safety

**DATE:** 12 March 2014

**RESEARCH QUESTION**

What is the clinical evidence regarding renal safety associated with the use of diagnostic computed tomography angiography involving contrast dyes compared with computed tomography angiography without contrast dyes for adult patients?

**KEY MESSAGE**

Two non-randomized studies were identified regarding renal safety associated with the use of diagnostic computed tomography angiography comparing the use of contrast media to no contrast media for adult patients.

**METHODS**

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2014, Issue 2), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, and non-randomized studies containing safety data. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between Jan 1, 2009 and Feb 28, 2014. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

**RESULTS**

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are
presented first. These are followed by randomized controlled trials and non-randomized studies.

Two non-randomized studies were identified regarding renal safety associated with the use of diagnostic computed tomography angiography comparing the use of contrast media to no contrast media, for adult patients. No health technology assessments, systematic reviews, meta-analyses, or randomized controlled trials were identified.

Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

Two non-randomized studies\(^1,2\) were identified regarding renal safety associated with the use of diagnostic computed tomography angiography comparing the use of contrast media to no contrast media for adult patients. Both studies reported no increase in contrast-induced nephropathy (CIN) in their respective populations.\(^1,2\) Specifically, computed tomography angiography with a contrast-enhanced computed tomography protocol did not increase the incidence of CIN in patients with acute ischemic stroke\(^2\) or in those with intracerebral hemorrhage.\(^2\)
REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses
No literature identified.

Randomized Controlled Trials
No literature identified.

Non-Randomized Studies


PREPARED BY:
Canadian Agency for Drugs and Technologies in Health
Tel: 1-866-898-8439
www.cadth.ca
APPENDIX – FURTHER INFORMATION:

Systematic Reviews and Meta-analyses

CT Imaging Not Specified


Specific to Administration Route


Randomized Controlled Trials - CT Imaging Not Specified


Non-Randomized Studies

CTA Imaging – No Non-Contrast Media Comparison


CT Imaging Not Specified


