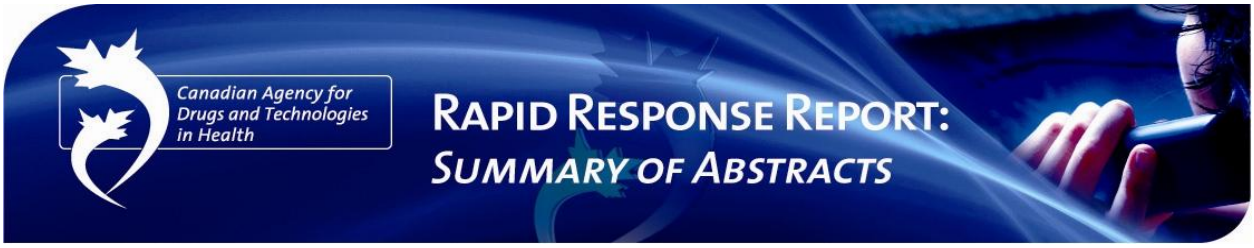

TITLE: Anticholinergic Drugs for the Treatment of Overactive Bladder in Older Patients: Clinical Evidence, Safety, and Guidelines

DATE: 05 March 2012

RESEARCH QUESTIONS

1. What is the clinical evidence regarding any changes in cognitive function associated with the use of anticholinergic drugs for the treatment of overactive bladder in patients older than 65 years of age?

2. What is the clinical evidence regarding the safety of anticholinergic drugs, with or without cholinesterase inhibitors, for the treatment of overactive bladder in patients older than 65 years of age?

3. What are the evidence-based guidelines regarding the use of anticholinergic drugs for the treatment of overactive bladder in patients older than 65 years of age?

KEY MESSAGE

Seven clinical studies and one evidence-based guideline were identified regarding the use of anticholinergic drugs for the treatment of overactive bladder in patients older than 65 years of age.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2012, Issue 2), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and abbreviated list of major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2007 and February 21, 2012. 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, non-randomized studies, and evidence-based guidelines.

Two randomized controlled trials, five non-randomized studies, and one guideline were identified regarding the use of anticholinergic drugs for the treatment of overactive bladder in patients older than 65 years of age. No relevant health technology assessments, systematic reviews, or meta-analyses were identified. Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

No major changes to cognitive function, or safety issues, related to anticholinergic drugs were reported in any of the included studies.[1-7] Further details of the included studies are provided in Table 1.

Table 1: Summary of Included Studies

Authors	Study Type and Patient Population	Interventions	Results
Herschorn et al.[1]	RCT Older adults with OAB	solifenacin or oxybutynin IR	The incidence of dry mouth and discontinuation of treatment was lower for patients receiving solfenancin.
Lackner et al.[2]	RCT Women aged 65 years and older with urge incontinence and cognitive impairment	oxybutynin ER or placebo	In older women with dementia, there were no reports of delirium and no differences were found in confusion assessment scores, when compared with placebo. Oxybutynin was well tolerated.
Wawruch et al.[3]	NRS Hospitalized patients aged 65 years and older	anticholinergic medications	The authors identified urinary incontinence as a risk factor for the use of anticholinergic drugs and indicated that physicians should be mindful of potential adverse anticholinergic effects in elderly patients.
Gomes et al.[4]	NRS Adults aged 66 years and older being treated for OAB	oxybutynin IR or tolterodine	No difference in risk for falls was identified between the two groups. There was no increase in the risk of fracture or delirium associated with oxybutynin IR when compared with tolterodine.
Staskin et al.[5]	NRS Cognitively intact adults aged 65 to 75	trospium ER	After 10 days of treatment, trospium was not detected in cerebrospinal fluid and no negative cognitive effects were observed.

Table 1: Summary of Included Studies

Authors	Study Type and Patient Population	Interventions	Results
	years with OAB		
Isik et al.[6]	NRS Elderly patients with late onset Alzheimer's disease	trospium, galantamine, or trospium + galantamine	Patient satisfaction increased in both the trospium and combination therapy groups. Cognitive assessment scores did not change significantly during the six month course of treatment. The authors suggested that trospium, could safely be used for the treatment of overactive bladder in combination with cholinesterase inhibitors.
Sink et al.[7]	NRS Nursing home patients aged 65 years and older taking a cholinesterase inhibitor	oxybutynin IR + cholinesterase inhibitors or tolterodine + cholinesterase inhibitors	A 50 percent greater rate in quarterly active daily living functional decline was observed in higher-functioning patients using combination therapy compared with those treated with cholinesterase inhibitors alone.

ER = extended-release; IR = immediate release;; NRS = non-randomized studies; OAB = overactive bladder; RCT = randomized controlled trial

The included evidence-based guideline[8] indicates that the most common AEs experienced by patients using anticholinergic medications include dry mouth, blurred vision, dizzy spells, constipation, and urinary retention. Central nervous system effects such as cognitive disorders and confusion may also be experienced and may be of greatest concern for elderly patients. It is suggested that the efficacy of drugs for OAB be assessed at regular intervals.

REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses
No literature identified.

Randomized Controlled Trials

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Non-Randomized Studies

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Guidelines and Recommendations

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National Guideline Clearinghouse summary available from:
http://www.guideline.gov/content.aspx?id=13195
See: Pharmacotherapy

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APPENDIX – FURTHER INFORMATION:

Systematic Reviews and Meta-Analyses

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Review Articles

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