

Key practice points

- Minimise use of anticholinergics as much as possible
- Consider anticholinergic burden scale when making prescribing choices
- Avoid prescribing anticholinergics at all for patients with acetylcholinesterase inhibitors
- Monitor any new anticholinergic for efficacy and tolerance
- Consider stopping if suffering from adverse effects and/or there are concerns about cognition

Common Anticholinergics

The following is a list commonly used medication classes that are likely to be highly anticholinergic.

- Antimuscarinics for bladder instability
- First generation antihistamines
- Antidepressants, particularly TCA and SSRI
- Antipsychotics
- Antispasmodics

If in doubt consult an ACB scale list.

About this leaflet

This leaflet was produced by the Prevention Task and Finish group of the Dementia Strategy Implementation Board on behalf of Norfolk County Council Health and Well Being Board. February 2017

We thank all members of the group for assisting in the production process

We welcome feedback on this leaflet

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ANTICHOLINERGIC MEDICATION AND DEMENTIA RISK

*Information for prescribers
and pharmacists*

What is the Anticholinergic Burden (ACB) problem?

Many medications that are commonly prescribed for elder adults have some anticholinergic properties. Most clinicians are aware of the potential for immediate side effects (such as dry mouth and eyes, constipation and urinary retention). However what is less well recognised is that long term use of anticholinergics can increase the risk of future cognitive impairment. This risk appears to be proportional to both the combined cumulative anticholinergic effect of an individual patients prescription list and also to the duration of treatment.

Typically taking either 3 weak anticholinergics or one strong anticholinergic for greater than 3 years is enough to measurably increase dementia risk.

ACB Scale Scoring

All medications can be divided into those with zero, likely weak, moderate or strong anticholinergic effect (0-3). By adding up the scores on an individuals prescription list we can weigh the cumulative risk. It is recommended to act to keep a list total as low as possible, with an ACB score of 4 as the point at which action should be considered.

A common ACB scale is the:
Aging Brain Care. Anticholinergic Cognitive Burden Scale. 2012 update.

This is available as a PDF on the University of East Anglia Website: www.uea.ac.uk and search for "Anticholinergic Cognitive Burden Scale"

Evidence Summary: 3 key Papers

Longer term observational studies such as Gray et al have strongly linked medications with anticholinergic activity with cognitive decline and dementia

Risacher et al found that the use of anticholinergic medication was associated with increased brain atrophy & dysfunction and increased risk of clinical conversion to cognitive impairment. Gray et al found that longer the cumulative anticholinergic medication use the greater the increased risk for dementia.

Fox et al published a systematic review in 2014, which found that medicines with anti-cholinergic properties have a significant effect on cognitive and physical function, but there was limited evidence for delirium and mortality outcomes.

Gray SL et al. *JAMA Intern Med.* 2015; 175(3): 401-407.

Risacher et al. *JAMA Neurol.* 2016;73(6):721-732

Fox et al. *Age and Ageing.* 2014. 0:1-12



Where to go for further information on ACB and polypharmacy

NHS Cumbria STOPP START Toolkit Supporting Medication Review 2013
www.cumbria.nhs.uk

SIGN. Polypharmacy guidance. March 2015.
http://www.sign.ac.uk/pdf/polypharmacy_guidance.pdf

All Wales Medicine Strategy Group, Polypharmacy: guidance for Prescribing July 2014
www.awmsg.org

PrescQIPP IMPACT tool. March 2016
<https://www.prescqip.info/polypharmacy-impact/category/272-polypharmacy-impact>