



Supplement: Anticholinergic drugs in older people

- Anticholinergic effects can cause a broad range of adverse events, including constipation, dry mouth, dry eyes, urinary retention, confusion, falls and agitation.
- [A systematic review and meta-analysis](#) reported that long-term exposure to drugs with anticholinergic effects was associated with an increased risk of cognitive impairment and all-cause mortality in older people, and some drugs were linked to an increased risk of falls.
- The review suggested that the commonest groups of drug implicated in this increased risk of cognitive impairment were, tricyclic antidepressants, sedating antihistamines and anticholinergic drugs used to treat bladder conditions.
- Up to 50% of elderly people could be taking an anticholinergic drug.
- The increased **risks from anticholinergic drugs are cumulative**, based on the number of anticholinergic drugs taken and the strength of each drug's anticholinergic effect.
- Older people are particularly susceptible to adverse effects, even at therapeutic doses.
- There is an increased risk of mortality with increased anticholinergic burden score.
- A cognitive function and aging study in 2011 found that every extra anticholinergic burden score point increased mortality risk by 26%.



Anticholinergic burden scale

A drug is given an anticholinergic burden (ACB) score on the basis of the strength of its anticholinergic activity, with 0 being no effect, 1 a mild effect, 2 a moderate effect and 3 a severe effect. The cumulative ACB score for all medication prescribed for a patient can be worked out.

Common examples of drugs with severe anticholinergic effects (ACB score = 3). For ACB scores for complete lists see

http://www.agingbraincare.org/uploads/products/ACB_scale_-_legal_size.pdf

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| • Amitriptyline | • Tolterodine |
| • Chlorpheniramine | • Trospium |
| • Diphenhydramine | • Oxybutynin |
| • Hyoscine hydrobromide | • Darifenacin |
| • Olanzapine | • Fesoterodine |
| • Promethazine | • Propiverine |
| • Quetiapine | • Solifenacin |

Action for GPs

- Caution when prescribing medication with anticholinergic effects, especially in patients with multi-morbidity and its associated polypharmacy.
- Patients should always be asked about OTC medication they purchase as many have an ACB score, e.g. antihistamines, hyoscine used in the prevention of travel sickness.
- Minimise use of anticholinergics where possible and consider anticholinergic burden when prescribing anticholinergic combinations.
- Anticholinergic risk scales are currently obtained in various toolkits for polypharmacy, such as those by [NHS Scotland](#) and the [All Wales Medicines Strategy](#). These tools can be used to aid clinical decisions when deciding on and reviewing treatment.
- Have your patients trialled a 'drug holiday'? – review patients prescribed treatment for [Urinary Incontinence using HSCB review tool](#). Practices interested in carrying out this review with the help of a practice support pharmacist should contact their medicines management advisor (MMA).
- For more information on treatment of urinary incontinence see <http://niformulary.hscni.net/PrescribingNewsletters/MedicinesManagement/vol7/Pages/default.aspx>.

Action for community pharmacists

- Be aware of the anticholinergic effects of many commonly used medicines (OTC/ POM). Take this into consideration when selling OTC medicines and during the clinical check when dispensing. Medicine Use Reviews (MURs) and Managing Your Medicines (MYM) reviews also provide further opportunity to identify anticholinergic side-effects and review patients' anticholinergic burden.
- For patients presenting with anticholinergic symptoms, be aware that both prescribed and OTC medicines may be a contributing factor.
- Where appropriate, promote / support patients taking a 'drug holiday' from their urinary incontinence drug treatment.

References

1. NICE. Drugs with anticholinergic effects and risk of cognitive impairment, falls and all-cause mortality. Eyes on evidence, 2015.
2. Aging brain care. Anticholinergic cognitive burden scale, 2012. <http://www.agingbraincare.org/tools/abc-anticholinergic-cognitive-burden-scale>.
3. HSCB. Anticholinergic Syndrome. Medicines Safety Alert, 2012. http://www.medicinesgovernance.hscni.net/primary-care/medicines-safety-advice-letters/?wpfb_s=anticholinergic.

This newsletter has been produced for GP practice staff and Pharmacists by the Regional Pharmacy and Medicines Management Team. If you have any queries or require further information on the contents of this newsletter, please contact one of the Medicines Management pharmacists in your local HSCB office.

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