

Anticholinergic burden in an Older Persons Mental Health Unit: To accept or challenge

Pepperell SN
Tasmanian Health Service, TAS, Australia

“The quality of life is more important than life itself” Alexis Carrel

Background

Anticholinergic burden is of particular concern in older persons who are more susceptible to side effects. In an inpatient older-persons mental health unit, the dilemma arises where many of the treatments used are also highly anticholinergic.

Aim

The aim was to measure the anticholinergic burden among patients at an inpatient mental health unit and present this back to the treating team for consultation.

Method

The **Anticholinergic Cognitive Burden (ACB)**¹ scale was used to measure the anticholinergic burden in patients at a point in time; 29th of September 2021, as well as at the point of admission to hospital.

Medical officers and nursing staff were invited to an in-service where education on anticholinergic burden was given and the data presented.

A discussion was had with the nursing and medical staff about the significance of this issue and how we can address it.

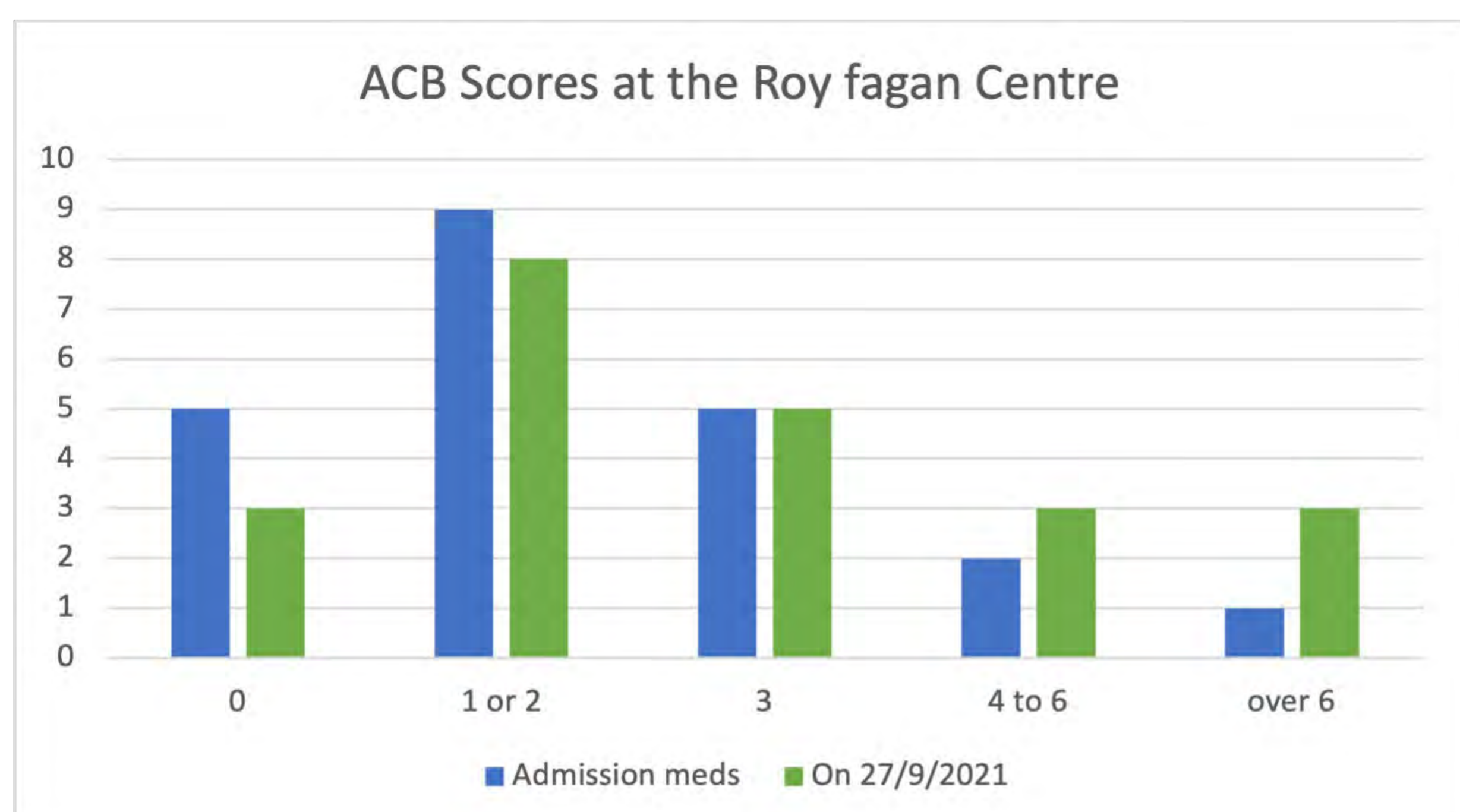
Results

ACB scores

22 patients were included in the data collection.

50% of patients had a ACB score of 3 or above which warrants a review of their medication.

3 people had a score of more than 6, with the highest being 12. Medications that contributed most to the score were nortriptyline, olanzapine, quetiapine and promethazine.



Response from staff

8 people attended the in-service which included 4 medical officers (1 old age psychiatrist, 2 registrars and a GP), 2 nurses (including the ANUM) and 2 student nurses. Reflections from staff included;

- That this was a worthwhile and important topic for the centre to focus on.
- That although they are generally aware of medications that have anticholinergic properties, they were not familiar with the scales that estimate anticholinergic burden, and were unaware of some medication that contributed to the anticholinergic burden.

Suggestions and further actions agreed to be followed up on included;

- For a copy of the ACB scale to be available with each medication chart
- For the doctors to calculate the ACB of newly admitted patients and take this into consideration when deciding to start new medication.

Anticholinergic Cognitive Burden Scale

Drugs with ACB Score of 1	Drugs with ACB Score of 2	Drugs with ACB Score of 3
Acetylcholinesterase Inhibitors: Donepezil ¹ , Rivastigmine ¹ , Galantamine ¹	Anticholinergics: Atropine ² , Tropicamide ² , Cyclopentolate ² , Flunitrazepam ² , Meprobamate ² , Scopolamine ² , Trihexyphenidyl ²	Anticholinergics: Amitriptyline ³ , Doxepin ³ , Imipramine ³ , Nortriptyline ³ , Amitriptyline ³ , Doxepin ³ , Imipramine ³ , Nortriptyline ³ , Amitriptyline ³ , Doxepin ³ , Imipramine ³ , Nortriptyline ³

Common anticholinergic side effects:
 • Dry mouth
 • Constipation
 • Urinary retention
 • Dry, pale and cool skin
 • Insecure enervation, falls without obvious reason, blurred vision
 • Increased energy with rapid shallow breathing, tachycardia, cardiac arrhythmias

Peripheral Nervous System
 • Memory deficits
 • Confusion and disorientation
 • Agitation
 • Hallucinations
 • Delirium
 • exacerbation of cognitive impairment in those with dementia

Adapted copy of ACB scale placed in with medication charts

Discussion

In the area of older persons mental health, it is not always possible to avoid medications with high anticholinergic burden. When necessary, medications such as nortriptyline and olanzapine can greatly increase a patients quality of life, whilst their side effects can reduce the quality of life. Doctors are often aware of the medications that are highly anticholinergic, but not so aware of the cumulative effect of all contributing medications, or the scale developed to estimate this. Therefore the use of a ACB scale can be useful in these settings. There is an appetite in this inpatient unit to be greater educated about anticholinergic burden scales and how their use can be implemented in everyday practice. This may indeed also be true of other older persons mental health units.

Contact information

RHH Pharmacy Department

Sandra Niloufar Pepperell

niloufar.pepperell@ths.tas.gov.au.com