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RxMedChart Wing A

SAMPLE

INTRODUCTION

This audit calculates the anticholinergic burden impact (ACBI) score and highlights co-prescribed sedatives for individual residents. It is intended as a tool to prompt a comprehensive review of treatment goals and to guide prescribing decisions.

Anticholinergics are a class of medicines that block the actions of the neurotransmitter acetylcholine in the brain. They are used to treat conditions like incontinence, gastrointestinal cramps, muscle spasms, depression, sleep disorders and asthma. Increasing anticholinergic activity can cause sedation, cognitive impairment, hallucinations and falls. ^{(1) (3)}

New research sheds light on the impact of anticholinergic activity on elderly people which may previously have gone unrecognised, prompting the development of anticholinergic burden impact scores as a practical tool to identify the severity of anticholinergic activity on an individual. ⁽²⁾

In particular, we are looking here at residents of residential aged care facilities. Older people taking medicines with an anticholinergic burden impact score of 3 or greater are at increased risk of falls and/or confusion. The risks are increased if the resident is also taking a sedative. ^{(3) (4) (5) (6)}

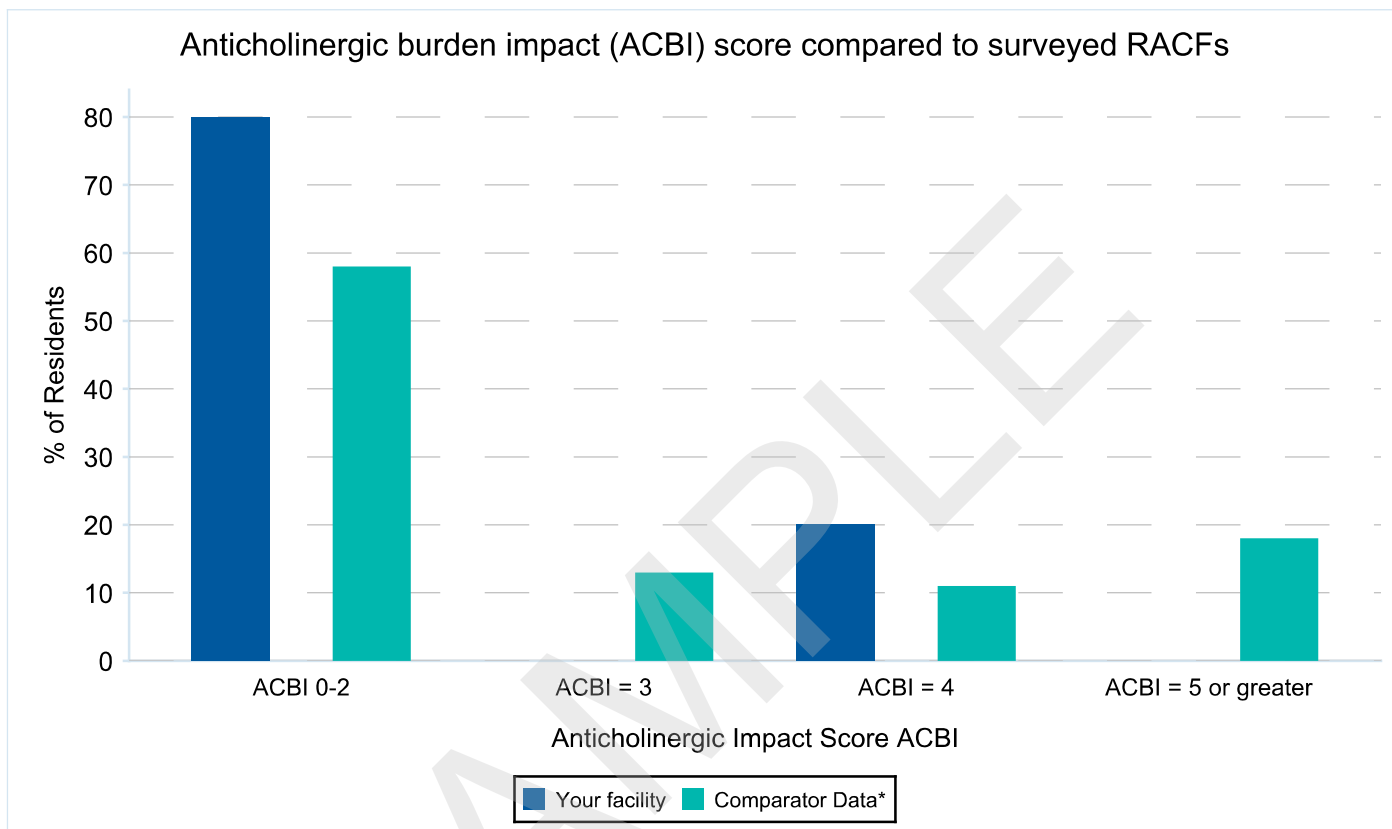
There is good evidence to show that minimising anticholinergic and sedative exposure can improve outcomes for older people. ^{(6) (7) (17)}

BENEFITS

Completion of this clinical audit can assist with:

- enhanced care for residents who may be at risk of falls and/or confusion
- a continuous improvement plan that may help in meeting expected outcomes of the Aged Care Accreditation Standards, Quality of Care Principles (2014); 2.1, 2.2, 2.7, 2.12, 2.14
- a continuous professional development (CPD) plan for the participating prescriber, nursing staff and pharmacist.

HOW DOES MEDICATION USE AT YOUR FACILITY COMPARE WITH OTHER RESIDENTIAL AGED CARE FACILITIES?



*data from 26,000 aged care residents surveyed November 2015

Guidelines recommend avoiding prescribing medicines with anticholinergic and sedative activity for older people where possible. ⁽⁷⁾

Evidence shows that an anticholinergic impact score of 3 or greater is clinically significant. ⁽²⁾

The graph above shows the anticholinergic burden impact score of residents at your facility compared to data collected from a survey of 26,000 residents in Sydney conducted in November 2015.

The anticholinergic burden impact score is based on published research studies. PRN medicines are included in the calculation as administration may contribute to a fall and/or confusion. Anticholinergics applied topically are included for completeness of data although the significance of topical absorption is not known at this time. Each medicine is included once only in the

WHAT DOES IT MEAN IF MY DATA IS GREATER THAN THE COMPARATOR DATA?

It is possible that your facility may have higher numbers of residents with multiple comorbidities than in the survey sample and the number of prescribed medicines may be greater than average. Drug classes with anticholinergic effects commonly used by older people include: ⁽⁸⁾

- gastrointestinal antispasmodics
- medicines used for urge incontinence
- antipsychotics and
- tricyclic antidepressants.

Women have been identified as having an increased number of prescribed anticholinergic medicines due to their use for treatment of urinary incontinence and chronic neuropathic pain. ⁽⁸⁾

WHAT DOES IT MEAN IF MY DATA IS LESS THAN THE COMPARATOR DATA?

Congratulations! Your results may show areas of excellent or “notable” practice and this should be acknowledged.

Your facility may like to consider using resident lists as a tool to support and sustain practices by identifying residents who may benefit from a review of their prescribing goals.

ABOUT THE RESEARCH

The research gives an interesting insight into how medicines with high anticholinergic burden impact scores and sedatives can affect older people.

- Medication problems are a common and significant cause of falls, hospitalisation and death in older people. Anticholinergics and sedatives especially, can adversely impact the health of older people with dementia and with normal cognitive function. They are also known to be a modifiable risk factor for medication problems. ^{(2) (6) (7) (17)}
- Older people are more vulnerable to anticholinergic and sedating side effects of medicines because of the cumulative effects of medication, the fact that older people are generally frailer and also because they may take more medicines (polypharmacy). ⁽⁶⁾

- Older people are more susceptible to adverse effects of medicines as they are cleared from the body more slowly, the brain is more permeable to medicines and central cholinergic activity declines with age. ⁽⁶⁾
- Anticholinergic burden impact (ACBI) scores have been developed using blood serum levels and correlation data to identify medicines which have high potential to cause adverse effects. ⁽²⁾
- These lists score the anticholinergic activity of medicines as:
 - 1 = moderate
 - 2 = strong
 - 3 = very strong
- Anticholinergic side effects are cumulative. Medicines with a low ACBI score can have a high impact. A high anticholinergic impact among women aged 65 and older was due to multiple medicines with a lower ACBI rather than single use of highly potent anticholinergic medicines. ⁽⁸⁾
- The greater the exposure to anticholinergic activity, the greater the risk of falls and/or

Most importantly, reducing exposure to anticholinergic and sedating medicines can reduce the risks of falls and mental confusion in the older person. ^{(3) (6)}

SUPPORTING THE CARE OF YOUR RESIDENTS

The aim of this data is to support and improve the care of older people by reducing their exposure to medicines which may potentially increase the risk of falls and/or confusion.

Ideally, this audit will encourage staff at your facility to prompt discussion about how to enhance individual prescribing decisions and highlight residents who may benefit from a collaborative, comprehensive review of their medication appropriateness and safety.

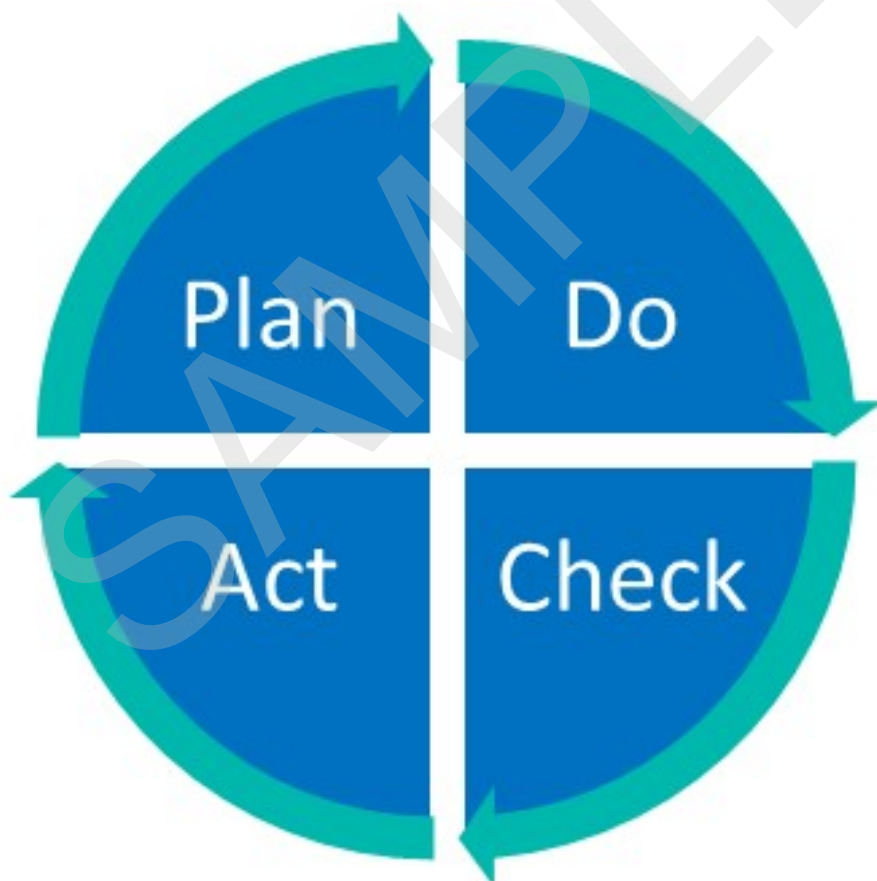
This audit calculates the anticholinergic burden impact of a resident's medicines and highlights concurrent sedative use. The ACBI score has been verified as appearing on several published lists. ^{(9) (2) (10) (11) (12) (13) (14) (15) (16)}

Anticholinergic and sedative medicines are modifiable risk factors for falls and/or confusion. Guidelines for prescribing in older people recommend avoiding, where possible, medicines with anticholinergic and sedative activity.

Falls and Confusion-Predictive Analytics

If a decision is taken to withdraw a medication, a gradual withdrawal plan should be considered in order to avoid rebound anticholinergic or psychiatric adverse effects.

This report is designed to engage everyone at your facility who is involved in providing or receiving care and support a continuous improvement plan.



RESIDENT LIST

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Anticholinergic burden impact score of prescribed medicines plus sedative alert

Medication	Generic name	ACBI score	Notes
Dorothy O'SULLIVAN			
Coumadin 1mg Tablet	<i>warfarin</i>	1	
Pramin 10mg Tablet	<i>metoclopramide</i>	3	
	ACBI Total	4	
Mary HARRISON			
Adalat 10mg Tablet	<i>nifedipine</i>	1	
	ACBI Total	1	
Gertrude HUTCHINSON			
Efexor-XR 37.5mg Capsule	<i>venlafaxine</i>	1	
	ACBI Total	1	
ALERT!	Resident is prescribed a sedative:	Temaze 10mg Tablet 1 bedtime	
Gwen WALKER			
Rispa 0.5mg Tablet	<i>risperidone</i>	1	
	ACBI Total	1	

George ALLEN

ACBI Total **0**

ALERT! Resident is prescribed a sedative: Temtabs 10mg Tablet 1 bedtime

SAMPLE

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Disclaimer

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