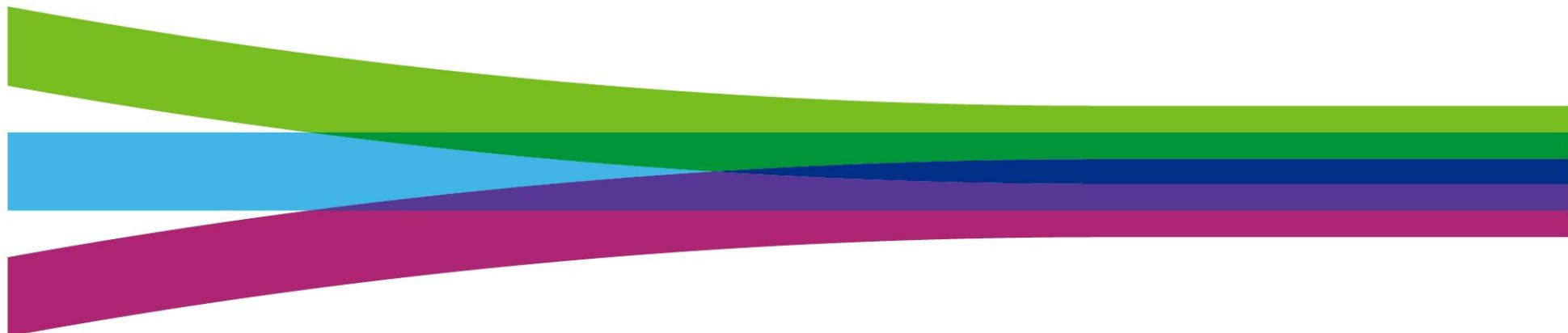


# Anticholinergic Burden Project Prescribing Incentive Scheme 2021-22

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BSW Medicines Optimisation in Care Homes Team**



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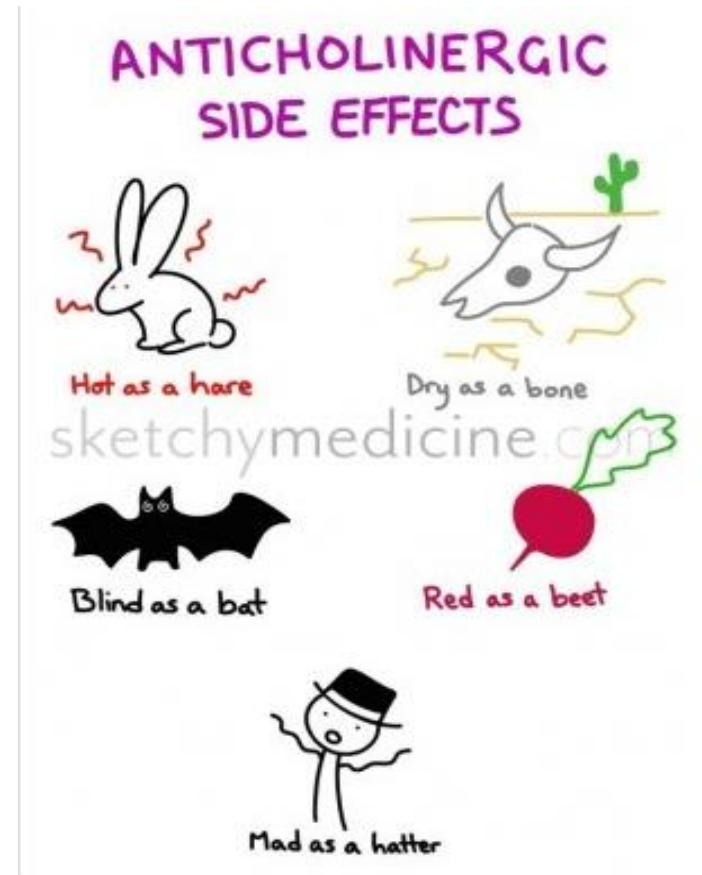
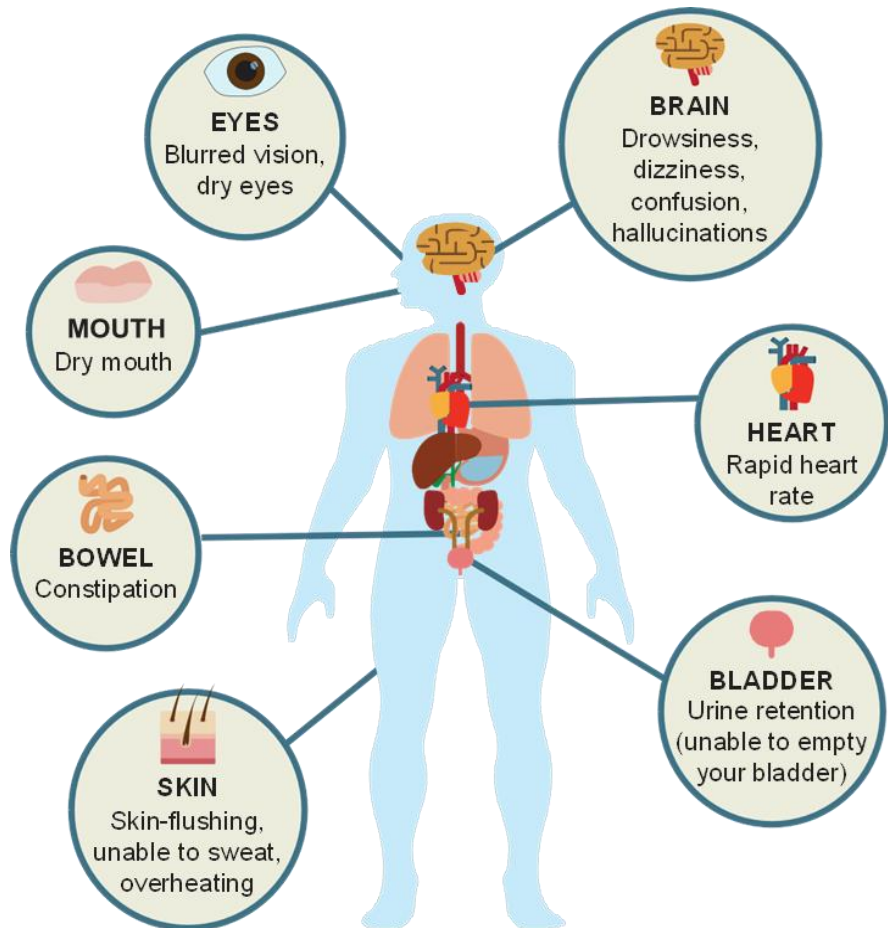
- Background & evidence
- Anticholinergic scoring scales

PrescQIPP bulletin 253, September 2020

## Anticholinergic Burden

- Prescribing data
- Incentive Scheme project requirements
- Suggested review process for OAB drugs

# Background: anticholinergic side effects - general



# Background: anticholinergic side effects – cognitive impairment

- Emerging evidence linking anticholinergic drugs with
  - Dementia
  - Increased mortality
- Anticholinergic medication use and cognitive impairment in the older population: the Medical Research Council cognitive function and ageing study, 2011.
  - 20% people with ACBS score  $\geq 4$  dead after 2 years
  - 7% people with ACBS score 0 dead after 2 years
  - Anticholinergic use associated with greater decline in MMSE

# Background: increasing evidence of harm

- 2015: Drugs with anticholinergic effects and cognitive impairment, falls and all-cause mortality in older adults: A systematic review and meta-analysis.
- 2016: Association Between Anticholinergic Medication Use and Cognition, Brain Metabolism, and Brain Atrophy in Cognitively Normal Older Adults.
- 2018: Anticholinergic drugs and risk of dementia: case-control study.
- 2019: Anticholinergic Drug Exposure and the Risk of Dementia. A Nested Case-Control Study.
- 2020: Anticholinergic drugs and incident dementia, mild cognitive impairment and cognitive decline: a meta-analysis.

# Anticholinergic scoring scales

- ACBS, AEC, ARS, mARS, ADS etc.
- NICE NG97 2018: no scale better than another. Referenced ACBS scale as updated 2012, uses UK drug names
- Available scales based on
  - Expert opinion panels
  - In vitro data
  - Literature reviews
- Drugs, including OAB drugs, score differently depending on scale used.

# Anticholinergic scales: OAB drugs

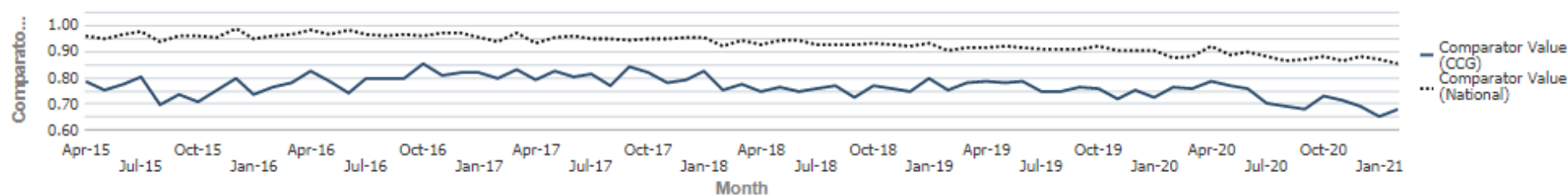
- CNS effects of anticholinergic medicines *may vary*:
  - Ability to penetrate the blood brain barrier (BBB)
  - Activity at CNS receptors
- Ability to cross BBB determined by a variety of factors:
  - Serum concentration (passive diffusion)
  - Lipophilicity
  - Active transport “in” or “out”
  - Electrical charge / polarity
  - Molecular size and configuration
- AEC/Medichec: trospium, fesoterodine\*, darifenacin\* = 0  
& solifenacin =1

# Prescribing data: ePACT2 Polypharmacy

Percentage of patients with an anticholinergic burden score of 6 or more - Aged 65 to 74

Trend over time for BANES SWINDON AND WILTSHIRE CCG

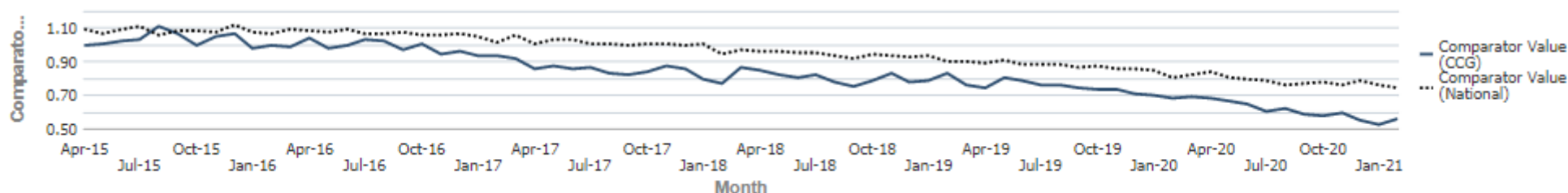
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Percentage of patients with an anticholinergic burden score of 6 or more - Aged 75 to 84

Trend over time for BANES SWINDON AND WILTSHIRE CCG

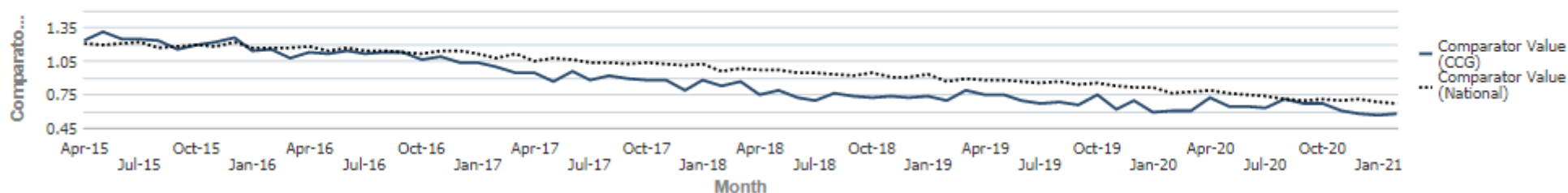
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Percentage of patients with an anticholinergic burden score of 6 or more - Aged 85 and over

Trend over time for BANES SWINDON AND WILTSHIRE CCG

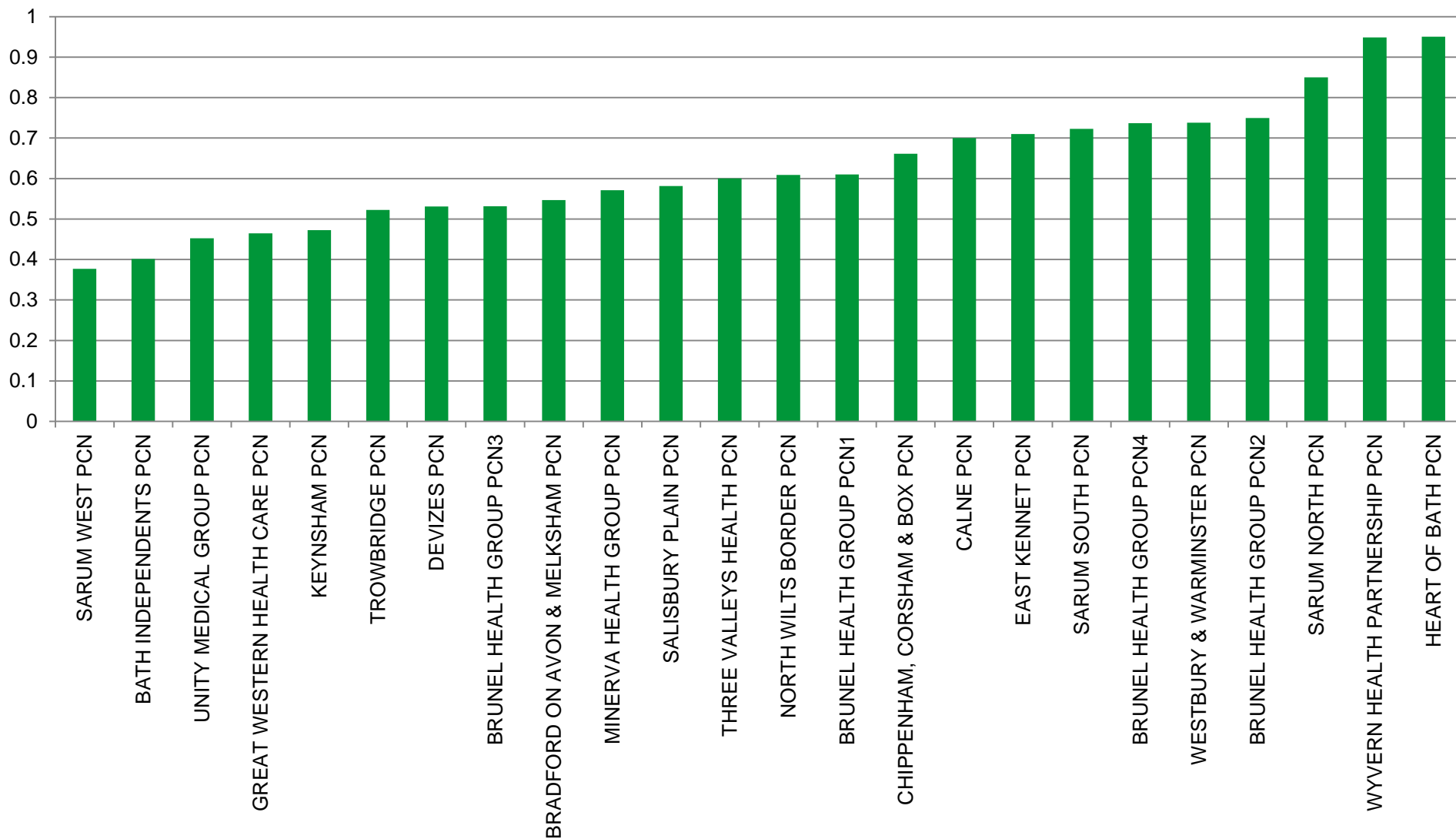
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# Prescribing data: BSW PCNs

% of patients >65yrs with ACBS score of 6+



# Incentive Scheme: why OAB drugs?

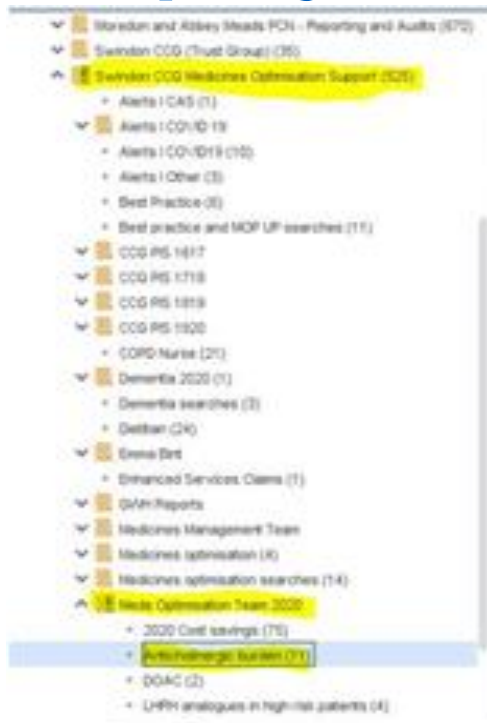
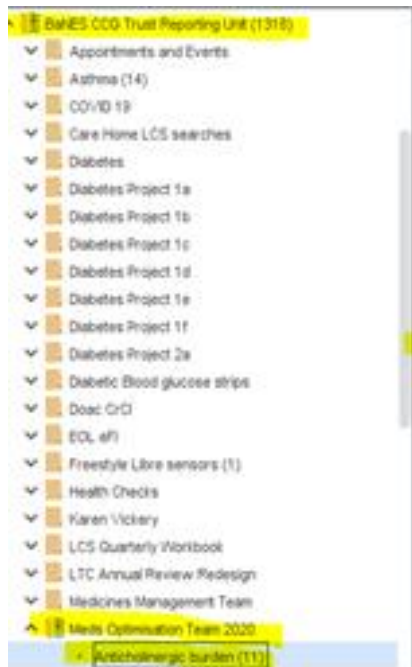
- OAB drugs have strong anticholinergic effects
  - ACBS score 3
- OAB drugs cited in evidence as one of drug groups having strongest association with cognitive impairment
- BSW OAB guidance updated 2020

# Incentive Scheme project: requirements

1. Nominate “Deprescribing Champion”, attend educational session & complete QI proforma.
  - Education sessions planned for June & July 2021
2. Review anticholinergic OAB drug use in:
  - 100% of patients with dementia
  - 20 patients or 100% if <20 at baseline (Oct 2020) with mild, moderate or severe frailty
  - Reviews conducted October 2020 – March 2021 **will** count towards 21/22 target

**Use read code: XagBE or 761882000**

# Incentive Scheme project: searches



### Anticholinergic burden

Name ▾

Background Pts OAB >65 y + Frailty

Background all Pts on Anticholinergic drugs last 3m + Dementia read code

Background All Pts Over active bladder drugs last 3m

Background Incentive Scheme Review Readcode 2020/21 financial year

Background Patients Frailty code

Background Pts Dementia read codes

Background Pts on Over Active Bladder Drugs

Group 1 Review all Pts on Over Active Bladder drugs +Dementia read code

Group 2 Review 10% Pts on Over Active Bladder drugs>65 last year +Frailty codes

Incentive Scheme - Group 1: OAB drugs + Dementia + No ACB review in current year

Incentive Scheme - Group 2: (Review 20 patients or 10% of total) OAB drugs + >65 + Frailty + No ACB review in current year

# Suggested review process

- It is not a switch to mirabegron
- Review process:
  1. Is OAB drug still needed or indicated?
  2. If still indicated offer trial without.
    - Letter template
    - OAB symptom questionnaire template

# Prescribing reviews – supporting materials

## Appendix 2 Draft Letter

Dear <Patient name>

I have noticed that you are taking a medication called **xxx**. This medication is used to treat an overactive bladder which is a common cause of urinary urgency and frequency.

This medication can have some unwanted side effects including dry mouth and/or eyes, constipation or sometimes confusion (particularly in older people). Additionally, recent studies have suggested that this medication, and others like it, may increase the chances of people developing dementia although this has not been proven beyond doubt. The enclosed information leaflet explains the side effects of this group of medicines in more detail.

Because of these side effects and risks we want to review your use of **xxx**.

Often with this type of medicine it is difficult to assess whether it is still providing the same benefit in reducing urgency and frequency of urination as when it was first started. For this reason, it is recommended that patients, who have taken this medication more than a few months, should be offered a 'trial without' for up to 4 weeks.

Therefore the first step we ask you to take in reviewing your use of **xxx** is to have a 'trial without' period. Please stop taking **xxx** for up to 4 weeks. Please complete the questionnaire at the end of this letter before stopping and a few weeks after stopping. The questionnaire is designed to help you keep track of your symptoms with and without the medication.

Then according to your bladder symptoms during & after this trial, either:

- ✓ If you notice no significant change in your symptoms during this 4 week period, this could be a sign that the medication is no longer working, or no longer needed. If you feel able to continue without the medication, please contact the surgery to tell us.
- ✓ If within this trial period your symptoms worsen significantly and/or you feel unable to continue without medication then please make an appointment with **xxx** at the surgery. It may be possible for you to change to a safer alternative.

Many thanks for your help and understanding. If you have any concerns or questions about this letter, please contact **xxx** at the surgery.

Yours Sincerely

**xxx**

## Questionnaire

Patient Name:  Date of Birth:

### Stage 1: Before trial of stopping over active bladder medication:

Choose the statement which best describes how bothered the patient is by each symptom during the last 4 weeks				
<i>Not at all</i>	<i>A little bit</i>	<i>Quite a bit</i>	<i>A great deal</i>	<i>A very great deal</i>
During the past 4 weeks, how bothered were you by a sudden or uncomfortable urge to urinate				
<i>Not at all</i>	<i>A little bit</i>	<i>Quite a bit</i>	<i>A great deal</i>	<i>A very great deal</i>
During the past 4 weeks, how bothered were you by accidental loss of small amounts of urine				
<i>Not at all</i>	<i>A little bit</i>	<i>Quite a bit</i>	<i>A great deal</i>	<i>A very great deal</i>
During the past 4 weeks, how bothered were you by waking up at night because you had to go to the toilet				
<i>Not at all</i>	<i>A little bit</i>	<i>Quite a bit</i>	<i>A great deal</i>	<i>A very great deal</i>
During the past 4 weeks, how bothered were you by urine loss associated with a strong desire to urinate				
<i>Not at all</i>	<i>A little bit</i>	<i>Quite a bit</i>	<i>A great deal</i>	<i>A very great deal</i>
Which of the following statements describes your bladder condition best at the moment?				
<i>Does not cause me any problems at all</i>		<i>Causes me some minor problems</i>		<i>Causes me some moderate problems</i>
<i>Causes me severe problems</i>			<i>Causes me many severe problems</i>	
How often do you take your medicine?				
<i>Daily</i>	<i>Most days</i>	<i>Infrequently</i>	<i>Only when going out</i>	<i>Not taking</i>
Have you had any advice on bladder training or how you can change your lifestyle to improve symptoms?				
<i>Yes</i>	<i>No</i>	<i>Not Sure</i>		

### Stage 2: Follow up after trial of stopping over-active bladder medication:

After stopping medication, how bothered were you by a sudden or uncomfortable urge to urinate				
<i>Not at all</i>	<i>A little bit</i>	<i>Quite a bit</i>	<i>A great deal</i>	<i>A very great deal</i>
After stopping medication, how bothered were you by accidental loss of small amounts of urine				
<i>Not at all</i>	<i>A little bit</i>	<i>Quite a bit</i>	<i>A great deal</i>	<i>A very great deal</i>
After stopping medication, how bothered were you by waking up at night because you had to go to the toilet				
<i>Not at all</i>	<i>A little bit</i>	<i>Quite a bit</i>	<i>A great deal</i>	<i>A very great deal</i>
After stopping medication, how bothered were you by urine loss associated with a strong desire to urinate				
<i>Not at all</i>	<i>A little bit</i>	<i>Quite a bit</i>	<i>A great deal</i>	<i>A very great deal</i>
Which of the following statements describes your bladder condition best at the moment?				
<i>Does not cause me any problems at all</i>		<i>Causes me some minor problems</i>		<i>Causes me some moderate problems</i>
<i>Causes me severe problems</i>			<i>Causes me many severe problems</i>	
Do you need to restart your medicine, or an alternative? If yes, please make an appointment at the surgery to discuss this.				
<i>Yes</i>	<i>No</i>			

# Suggested review process

## 3. Explain why & discuss risks. Anticholinergic information leaflet available:



### What you need to know about anticholinergic medications



#### What are anticholinergic medications?

Some medications work by blocking a chemical in your body called acetylcholine so they are referred to as anticholinergic.

Acetylcholine is used in many parts of your body and helps you stay alert, keep a steady heart rate, breathe, digest food, sweat and empty your bladder. When you take an anticholinergic medication, it acts on many parts of your body at the same time.

Anticholinergic medicines can be prescribed as:

- Bladder control medications e.g. oxybutynin, tolterodine, solifenacin, trospium
- Allergy medications e.g. chlorphenamine (Piriton), hydroxyzine
- Antidepressants e.g. paroxetine, amitriptyline
- Medication for nerve pain e.g. amitriptyline, nortriptyline
- Non-prescription sleeping tablets e.g. diphenhydramine (Nytol, Sleep-eze, NightAid), promethazine, (Phenergan, Sominex, Night Nurse).

Show this leaflet to your doctor, pharmacist or nurse and ask if any of the medicines you take have these effects.

#### Are there any side effects and what are my risks?

You can get side effects when you take anticholinergic medicine, and some factors increase your risk of experiencing them. These include:

- You are taking higher doses
- You take the medicine for a long time
- You are taking more than one anticholinergic medication
- You are older.

As we get older, our liver and kidneys aren't able to process medications as well, so we become more sensitive to them.

Also, many older adults have more than one health condition and may take many medications, including one or more anticholinergics. The more medications a person takes, the more likely it is that he or she will have unwanted side effects.

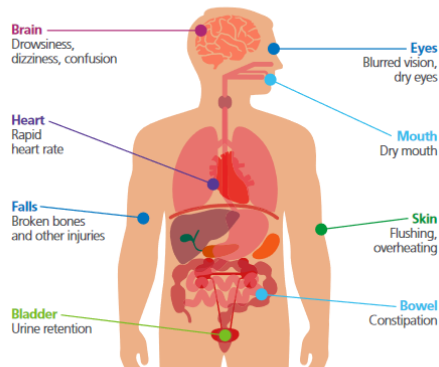
#### Do anticholinergic medications increase the risk of dementia?

In the last few years studies have suggested that older adults who use anticholinergic medications for a long time, or at higher doses, may have a higher risk of dementia.

Research has not proven that anticholinergic drugs cause dementia, but it does suggest that older adults should limit the number of anticholinergic medications they take and use the lowest dose for the shortest length of time.

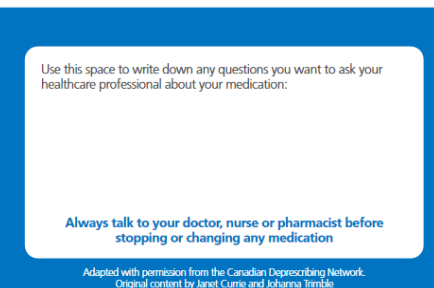
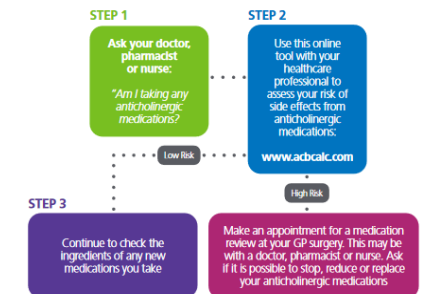
#### What are the possible side effects from anticholinergic medications?

When you take an anticholinergic medication, it can act on many different parts of your body at the same time.



You and your doctor or other healthcare provider might decide together that the benefits of using these treatments outweigh the potential risks.

#### How to lower the risk of side effects from anticholinergic medications



## 4. Review & if symptoms worse off treatment offer safer alternative.

## 5. Only record read code when review **complete** i.e. stopped, changed or deemed essential/safer alternative not possible.

# Questions?

