



# Illustrated cases in OAB and UI in residents of long term care

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# Disclosures – Adrian Wagg

- **Astellas Pharma** – research grants, speaker honoraria and consulting
- **Essity Health & Hygiene AB** – research grants and consulting
- **Pfizer Corp** – research grants, consulting, speaker honoraria
- **Pierre Fabre** – speaker honoraria, consultancy

# Adrian Wagg

I have had full editorial control over the content of this presentation.

All views presented are my own and do not represent those of the sponsoring organization

# Some definitions....

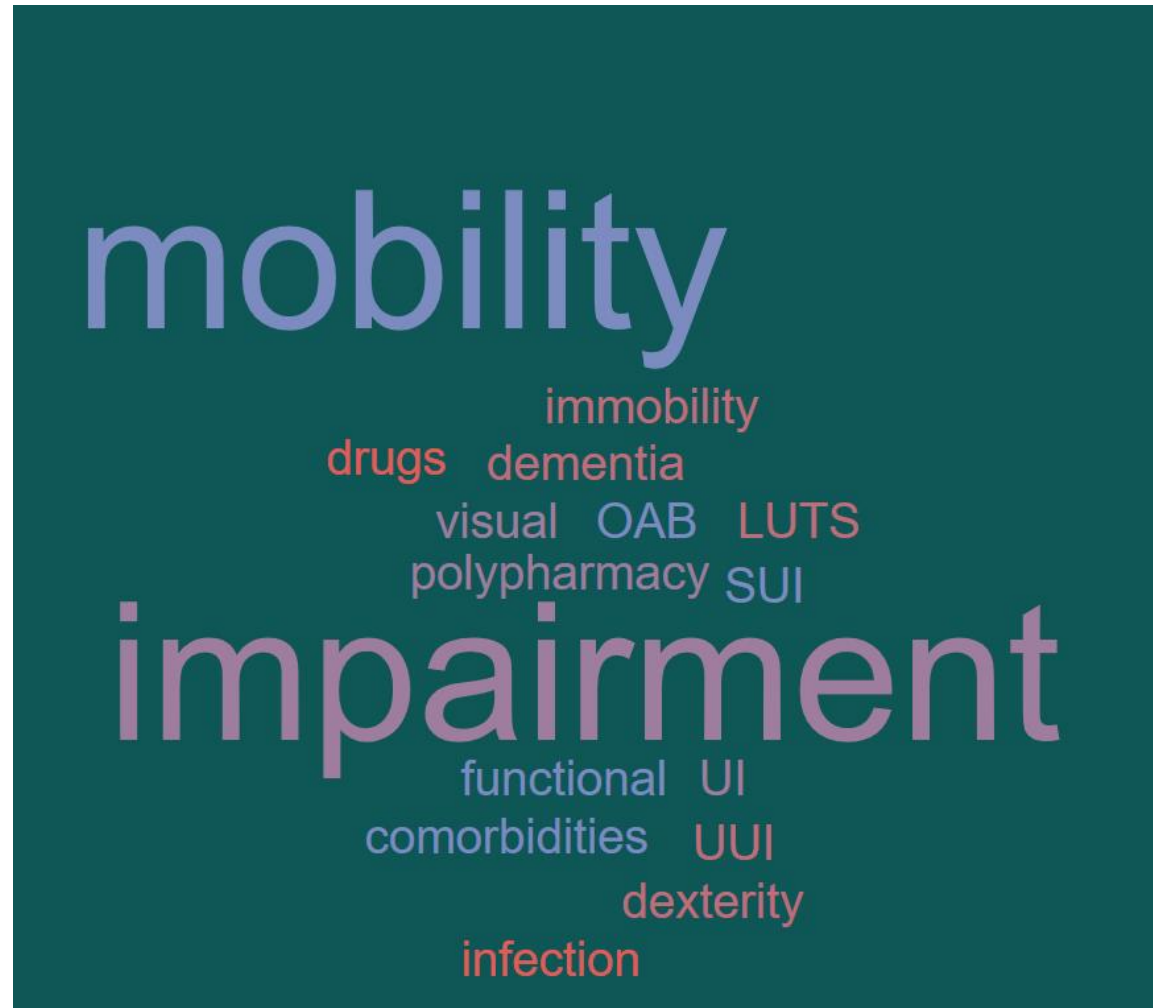
**Urinary incontinence** – involuntary loss of urine

There are 3 major sub-types:

- **Stress**, or **exertional** incontinence, that immediately following physical exertion
- **Urgency incontinence**, that immediately following urinary urgency
- **Mixed symptoms**: a combination of the two types

These account for about 90% of UI in older adults

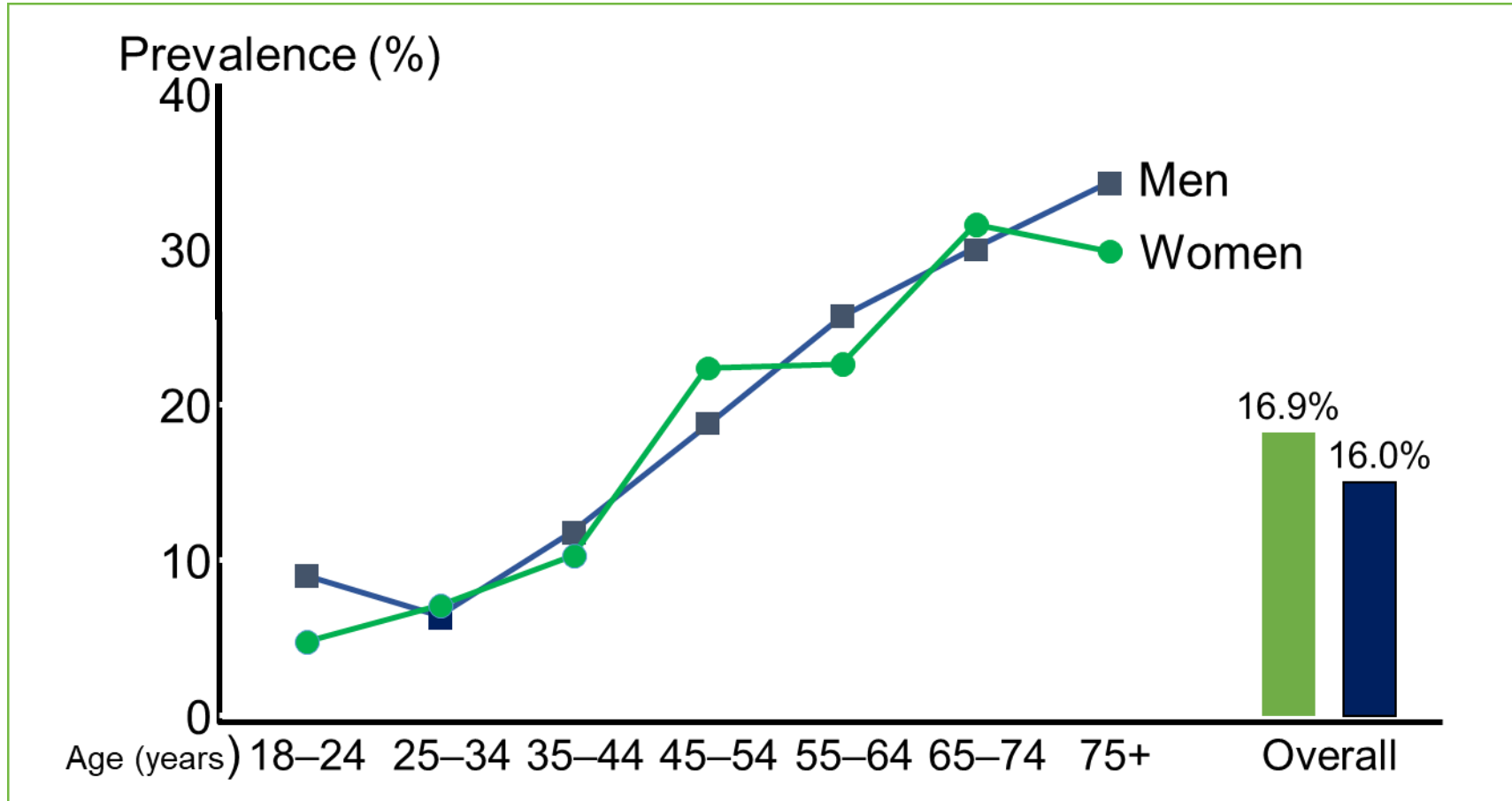
Most incontinence in older people is multifactorial in aetiology



# What is OAB?

**Overactive bladder (OAB, urgency) syndrome:** Urinary urgency, usually accompanied by increased daytime frequency and/or nocturia, with urinary incontinence (OAB-wet) or without (OAB-dry), in the absence of urinary tract infection or other detectable disease.

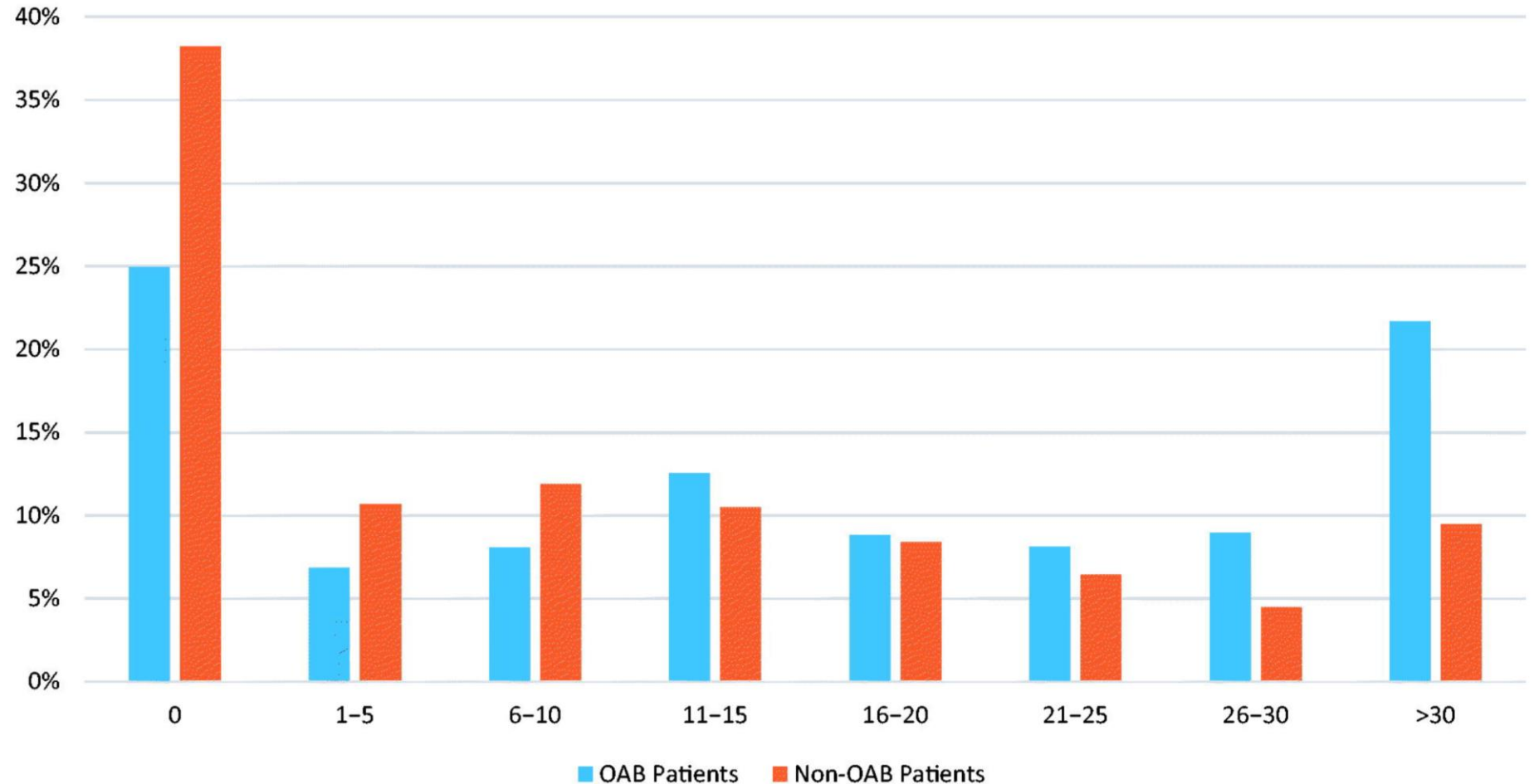
# Prevalence of OAB - Age and Sex



# Elderly OAB patients have more comorbid conditions than those without

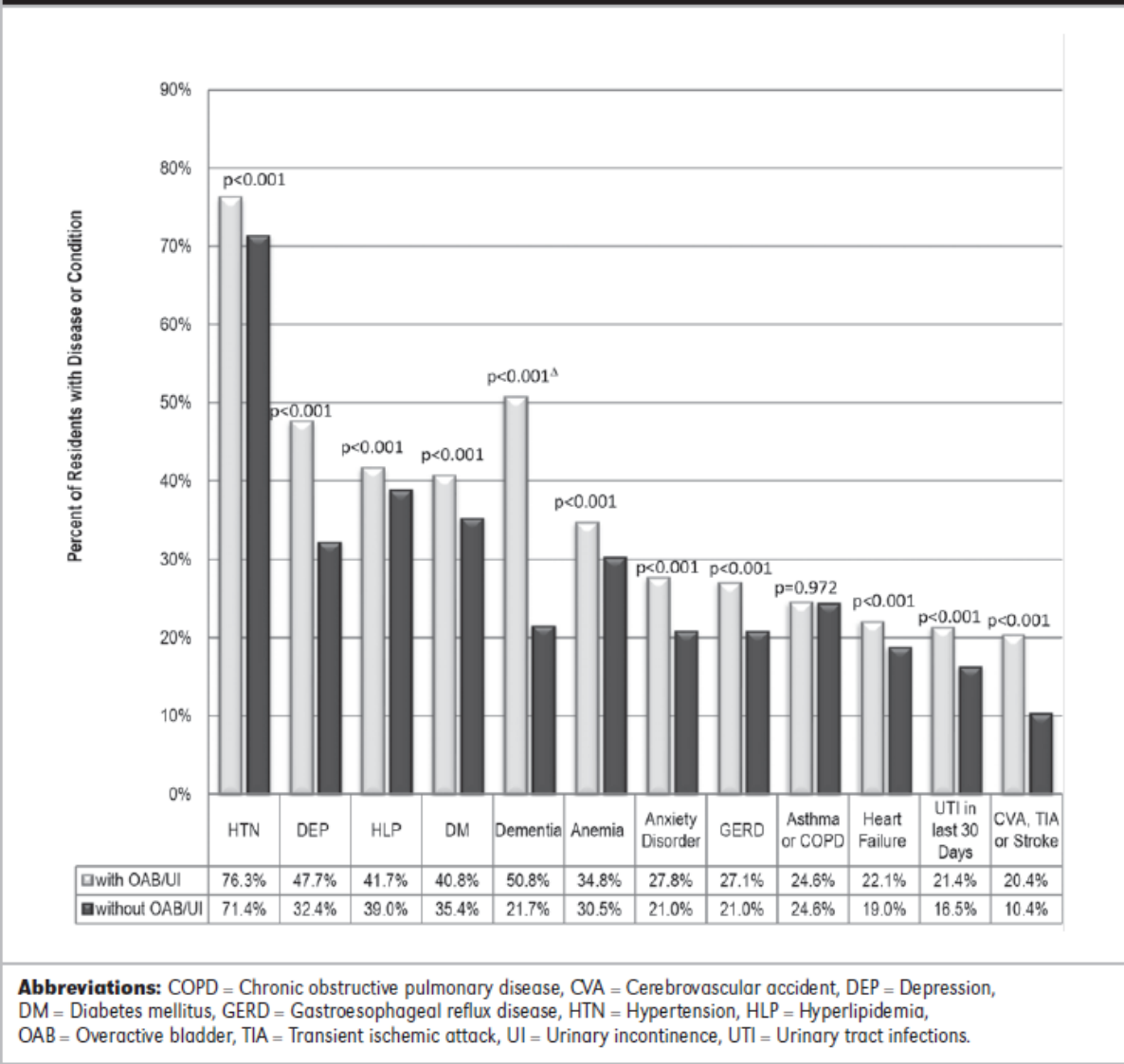
Distribution of Number of Medical Conditions

OAB, N=415  
Non-OAB, N=6,868





# Prevalent disease in residents with UI/ OAB compared with a matched cohort without UI/OAB in nursing homes

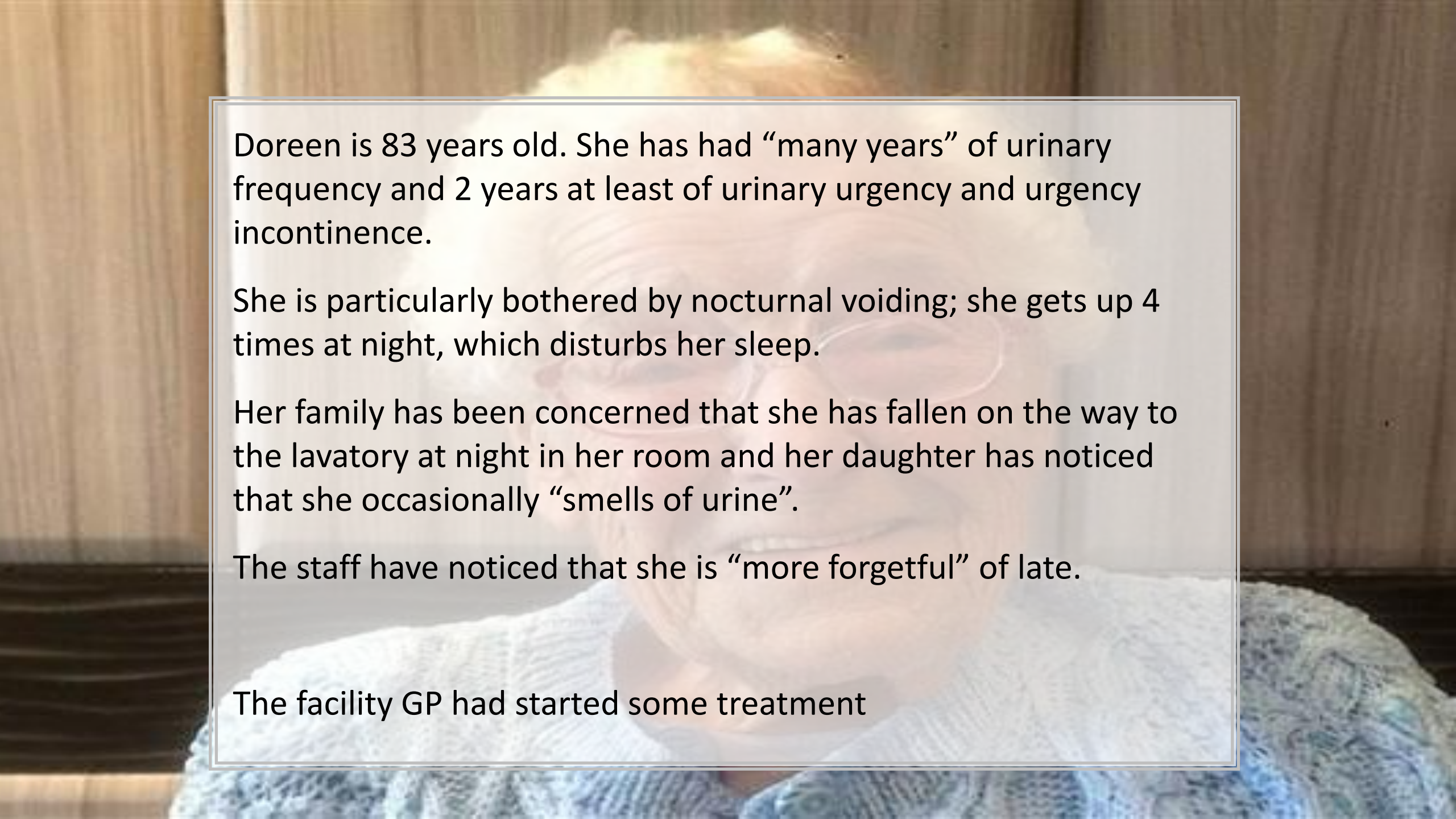


# and are more impaired in ADL

**Table 1.** Baseline demographic characteristics and functional impairment measures, MCBS respondents, by OAB status.

	OAB Patients (Unweighted N = 415, Weighted N = 1,019,946)	Non-OAB patients (Unweighted N = 6868, Weighted N = 17,768,956)	P Value
Age, years	78.5 (0.4)	76.9 (0.1)	<.01
Age Group, %			<.01
<75 years	34.6	46.1	
≥75 years	65.4	53.9	
Sex, %			
Female	71.2	61.7	<.01
Male	28.9	38.3	
Race, %			
White	75.9	75.8	0.87
Black	8.2	9.0	
Hispanic	10.2	10.2	
Other/Unknown	5.8	5.0	
Activities of Daily Living Limitations, %			
0 items	56.0	67.4	<.01
1–2 items	20.5	18.7	
≥3 items	22.4	13.3	
Missing	1.0	0.7	
Instrumental Activities of Daily Living Limitations, %			
0 items	46.7	60.2	<.01
1–2 items	25.1	21.3	
≥3 items	16.0	11.9	
Missing	12.2	6.6	
Physical Functioning Limitations, %			
0 items	9.8	18.6	<.01
1–2 items	27.5	37.2	
≥3 items	50.4	37.4	
Missing	12.4	6.8	
VES-13 Score	5.9 (0.15)	4.7 (0.05)	<.01
VES-13 Score <3	22.7	37.4	<.01
VES-13 Score ≥3	77.3	62.6	

Data presented are the means (standard error of the mean) or percentages.  
 MCBS, Medicare Current Beneficiary Survey; OAB, overactive bladder; VES; Vulnerable Elders Survey.




Doreen is 83 years old. She has had “many years” of urinary frequency and 2 years at least of urinary urgency and urgency incontinence.

She is particularly bothered by nocturnal voiding; she gets up 4 times at night, which disturbs her sleep.

Her family has been concerned that she has fallen on the way to the lavatory at night in her room and her daughter has noticed that she occasionally “smells of urine”.


The staff have noticed that she is “more forgetful” of late.

The facility GP had started some treatment



• Her medical history includes:

- myocardial infarction
- chronic heart failure
- COPD
- hypertension
- diabetes mellitus
- mild renal impairment
- chronic lower back pain



- Her surgical history includes:

- Appendicectomy
- Tonsillectomy
- Cholecystectomy
- Abdominal hysterectomy and  
“bladder repair” 1998

- She is G6, P5

- No caesarian, ventouse, forceps

# Bowels

BO: 4/ week

Formed / hard, followed by “soft stuff”

Some faecal urgency

Two episodes of stool incontinence when  
she “couldn’t hold on”



# Medication

- Atorvastatin 80 mg OD
- Ramipril 10 mg OD
- Metformin 1000 mg BID
- Dapagliflozin 10 mg OD
- Furosemide 40 mg OM
- Bisoprolol 5 mg OD
- Tiotropium bromide 18 mcg OD
- Amitriptyline 25 mg nocte
- Vitamin D 1000 IU OD
- Calcium carbonate 500 mg OD
- Alendronic acid 70 mg weekly
- Salbutamol 200 mcg prn inh
- Aspirin 75 mg OD
- PEG 3350, 17g OD
- Clopidogrel 75 mg OD
- Oxybutynin 5mg TID

# Functional history

She is dependent upon a walking aid in and out of her room and down to the dining room

She can't get into her ensuite washroom if she uses it.

Her walking speed is slower than six months ago.





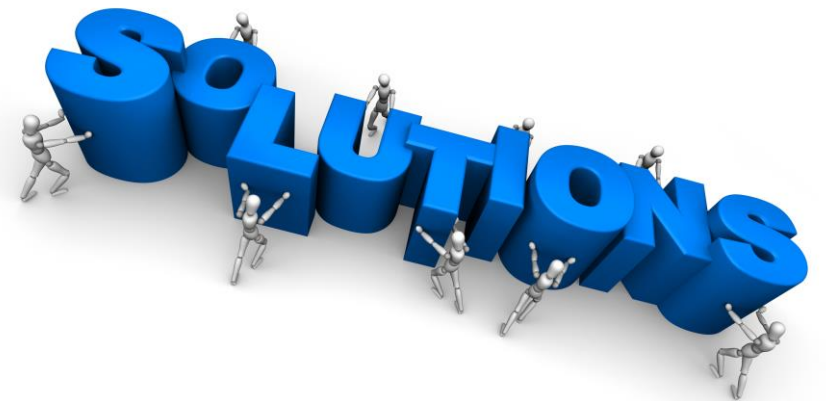
# Containment

- She uses panty liners to help her incontinence by day
- She uses larger pull ups by night
- She uses lavatory paper in her pants in addition to the liner by day – although her facility provides free pads
- She reports soreness “down below, Doctor.”



# Multiple risk factors = multiple opportunities for intervention

- Medication review
- Optimisation of concomitant medical conditions
- Appropriate LUTS Rx
- Pragmatic solutions to practical problems



A close-up photograph of an elderly woman with short, wavy white hair. She is wearing clear, round-rimmed glasses and a light blue, textured knit sweater. She has a slight smile and is looking directly at the camera. The background consists of vertical wood paneling. A semi-transparent white rectangular box is overlaid across the middle of the image, containing the text "Medication reviews...three relevant reasons".

**Medication reviews...three relevant reasons**

## Reason 1.

# Drugs and successful toileting

- The risk of difficulty in controlling urination in association with taking medications with actions on the bladder for community dwelling older women has been estimated as 1.31 (95% CI 1.05 – 1.41) times those not on such medication

Predictor	Crude odds ratio	Adjusted odds ratio*
	(95% CI)	(95% CI)
Age	1.0 (1.0 - 1.1)	1.0 (1.0 - 1.1)
Sex	1.5 (0.7 - 3.0)	1.1 (0.5 - 2.3)
Polypharmacy ( $\geq 5$ drugs)	5.3 (3.4 - 8.2)	4.9 (3.1 - 7.9)
Multimorbidity ( $\geq 3$ )	2.0 (1.2 - 3.3)	1.2 (0.6 - 2.03)
Depression	1.1 (0.7 - 1.67)	0.7 (0.4 - 1.2)
Cardiovascular disease	2.0 (1.3 - 3.0)	1.4 (0.8 - 2.3)
Hypertension	2.2 (1.4 - 3.5)	1.5 (0.9 - 2.7)
Respiratory disease	1.7 (1.0 - 3.1)	1.4 (0.7 - 2.9)
Gastrointestinal disorders	1.5 (1.0 - 2.2)	1.1 (0.6 - 1.9)
Dyslipidemia	1.6 (1.1 - 2.4)	0.9 (0.5 - 1.5)
Renal failure	1.6 (0.6 - 4.1)	0.7 (0.2 - 2.1)
Musculoskeletal disorders	1.3 (1.0 - 1.6)	0.9 (0.6 - 1.2)
Diabetes	1.4 (0.9 - 2.3)	0.9 (0.5 - 1.7)

\*Adjusted for age, sex, polypharmacy and multimorbidity.

Individuals consuming 5 or more drugs almost 5 times more likely to be taking a medication contributing to urinary symptoms, when adjusting for age, sex and comorbidity (OR = 4.9, 95% CI = 3.1-7.9)

No associations were found between age or sex and the use of medications potentially contributing to urinary symptoms

No association between the class of medication and the type or severity of incontinence in multivariate models

# Drugs for which there is published evidence of an association between use and UI

- Diuretics
- Clozapine
- Alpha adrenoreceptor antagonists
- Calcium channel antagonists
- SSRI - sertraline
- Cholinesterase inhibitors
- Systemic HRT

Shimp LA, et al Drug Intell Clin Pharm. 1988 Oct;22(10):786-7

Gormley EA et al. GM. 1993 Mar;71(3):265-9

Alling Miller, L. Et al Obstet Gynecol, 96: 446, 2000

van Oyen, H.et al. Acta Clin Belg, 57: 207, 2002

Landi, F.et al.Clin Pharmacol Ther, 72: 729, 2002

Movig, K. L et al Pharmacoepidemiol Drug Saf, 11: 271, 2002

# Drugs for which there is a theoretical basis for the worsening of incontinence

- Antimuscarinics (incl. antihistamines, antipsychotics, antispasmodics, anti-parkinsonian agents)
- Non Steroidal Anti-Inflammatory Drugs
- H<sub>2</sub> antagonists
- Benzodiazepines and antipsychotics
- ACE inhibitors
- Lithium

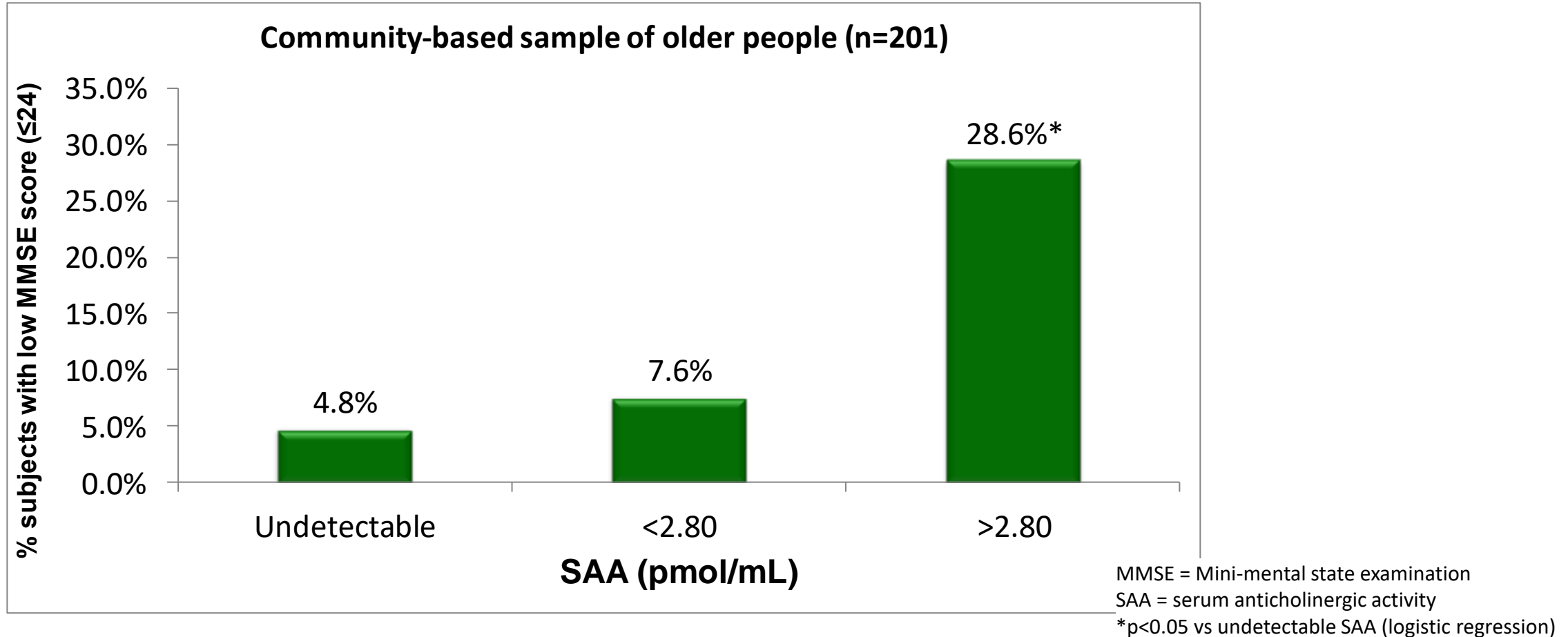
## Reason 2. Anticholinergic burden

the cumulative exposure  
to one or more  
anticholinergic  
medications and the  
associated increased risk  
of adverse effects





# Anticholinergic burden and MMSE scores



# Cumulative use of strong anticholinergics and incident dementia: a prospective cohort study

- 3,434 participants aged 65 and older with no dementia at study entry. Initial recruitment occurred between 1994 and 1996 or 2000 and 2003. Beginning in 2004, continuous replacement for deaths occurred. All participants received follow-up every two years

= Oxybutynin 5mg od for 3 years

Medication Class	All participants (N=3434)		TSDD <sup>a</sup>	
	N <sup>b</sup>	%	Total TSDD filled	% of all TSDD
Antihistamines	2,224	64.8	1,158,404	17.2
Gastrointestinal antispasmodics	1,566	45.6	365,141	5.4
Antivertigo/antiemetics	1,433	41.7	154,488	2.3
Antidepressants	1,352	39.4	4,241,590	63.1
Bladder antimuscarinics	668	19.5	702,825	10.5
Skeletal muscle relaxants	175	5.1	20,274	0.3
Antipsychotics	38	1.1	45,888	0.7
Antiarrhythmic	22	0.6	31,249	0.5
Antiparkinson agents	12	0.3	1,615	0.0
Total			6,721,473	100.0

TSDD <sup>b</sup>	Follow-up time (person-years)	Number of Events	Unadjusted <sup>c,d</sup>		Adjusted <sup>d,e</sup>	
			HR	95% CI	HR	95% CI
<b>Dementia</b>						
0	5618	136	1.00	Reference	1.00	Reference
1-90	7704	203	0.96	0.77-1.20	0.92	0.74-1.16
91-365	5051	172	1.31	1.04-1.65	1.19	0.94-1.51
366-1095	2626	102	1.39	1.07-1.82	1.23	0.94-1.62
>1095	4022	184	1.77	1.40-2.23	1.54	1.21-1.96
<b>Alzheimer's Disease</b>						
0	5618	112	1.00	Reference	1.00	Reference
1-90	7704	168	0.96	0.75-1.24	0.95	0.74-1.23
91-365	5051	128	1.21	0.93-1.58	1.15	0.88-1.51
366-1095	2626	83	1.38	1.03-1.85	1.30	0.96-1.76
>1095	4022	146	1.73	1.34-2.24	1.63	1.24-2.14

## Crude and adjusted odds ratios of dementia by prescription of any, defined daily doses (DDDs), and total burden of anticholinergics measured with the Anticholinergic Cognitive Burden (ACB) score

Exposure during DEP	No of cases (%)	No of controls (%)	Odds ratio (95% CI)		
			Unadjusted	Adjusted at start of DEP <sup>* †</sup>	Adjusted at end of DEP <sup>* †</sup>
<b>Any use</b>					
Prescriptions (ACB score):					
None	4295 (10.5)	36 329 (12.8)	1.00	1.00	1.00
1	36 437 (89.4)	247 406 (87.1)	1.25 <sup>§</sup> (1.21 to 1.29)	1.11 <sup>§</sup> (1.07 to 1.15)	1.10 <sup>§</sup> (1.06 to 1.15)
2	1429 (3.5)	7909 (2.8)	1.27 <sup>§</sup> (1.20 to 1.35)	1.10 <sup>§</sup> (1.03 to 1.17)	1.10 <sup>§</sup> (1.03 to 1.16)
3	14 453 (35.5)	86 403 (30.4)	1.27 <sup>§</sup> (1.24 to 1.30)	1.16 <sup>§</sup> (1.13 to 1.19)	1.11 <sup>§</sup> (1.08 to 1.14)

- The results of the study found a small effect size, with odds ratios between the prescription of any drug with an ACB score of 1,2 or 3 (increasing potency) and an incident dementia diagnosis of between 1.06 and 1.11 with no clear increase in association with anticholinergic potency.
- There were inconsistent associations between ACB scale and class of medication, for example, antipsychotic drugs with a score of 3 showed no association whereas antidepressant and urological agents with the same classification did show such an association.
- These relationships were seen even for exposures 15-20 years before the diagnosis of dementia

# Anticholinergic Cognitive Burden Scale

## Drugs with ACB Score of 1

Generic Name	Brand Name
Allimemazine	Theralen™
Alverine	Spasmonal™
Alprazolam	Xanax™
Aripiprazole	Abilify™
Asenapine	Saphris™
Atenolol	Tenormin™
Bupropion	Wellbutrin™, Zyban™
Captopril	Capoten™
Cetirizine	Zyrtec™
Chlorthalidone	Diuril™, Hygroton™
Cimetidine	Tagamet™
Clidinium	Librax™
Clorazepate	Tranxene™
Codine	Contin™
Colchicine	Colcrys™
Desloratadine	Clarinex™
Diazepam	Valium™
Digoxin	Lanoxin™
Dipyridamole	Persantine™
Disopyramide	Norpace™
Fentanyl	Duragesic™, Actiq™
Furosemide	Lasix™
Fluvoxamine	Luvox™
Haloperidol	Haldol™
Hydralazine	Apresoline™
Hydrocortisone	Cortef™, Cortaid™
Iloperidone	Fanapt™
Isosorbide	Isordil™, Ismo™
Levocetirizine	Xyzal™
Loperamide	Immodium™, others
Loratadine	Claritin™
Metoprolol	Lopressor™, Toprol™
Morphine	MS Contin™, Avinza™
Nifedipine	Procardia™, Adalat™
Paliperidone	Invega™
Prednisone	Deltasone™, Sterapred™
Quinidine	Quinaglute™
Ranitidine	Zantac™
Risperidone	Risperdal™
Theophylline	Theodur™, Uniphyll™
Trazodone	Desyrel™
Triamterene	Dyrenium™
Venlafaxine	Effexor™
Warfarin	Coumadin™

## Drugs with ACB Score of 2

Generic Name	Brand Name
Amantadine	Symmetrel™
Belladonna	Multiple
Carbamazepine	Tegretol™
Cyclobenzaprine	Flexeril™
Cyproheptadine	Periactin™
Loxapine	Loxitane™
Meperidine	Demerol™
Methotrimeprazine	Levoprome™
Molindone	Moban™
Nefopam	Nefogesic™
Oxcarbazepine	Trileptal™
Pimozide	Orap™

## Drugs with ACB Score of 3

Generic Name	Brand Name
Amitriptyline	Elavil™
Amoxapine	Asendin™
Atropine	Sal-Tropine™
Benztropine	Cogentin™
Brompheniramine	Dimetapp™
Carbinoxamine	Histex™, Carbihist™
Chlorpheniramine	Chlor-Trimeton™
Chlorpromazine	Thorazine™
Clemastine	Tavist™
Clomipramine	Anafranil™
Clozapine	Clozaril™
Darifenacin	Enablex™
Desipramine	Norpramin™
Dicyclomine	Bentyl™
Dimenhydrinate	Dramamine™, others
Diphenhydramine	Benadryl™, others
Doxepin	Sinequan™
Doxylamine	Unisom™, others
Fesoterodine	Toviaz™
Flavoxate	Urispas™
Hydroxyzine	Atarax™, Vistaril™
Hyoscyamine	Anaspaz™, Levsin™
Imipramine	Tofranil™
Mecizline	Antivert™
Methocarbamol	Robaxin™
Nortriptyline	Pamelor™
Olanzapine	Zyprexa™
Orphenadrine	Norflex™
Oxybutynin	Ditropan™
Paroxetine	Paxil™
Perphenazine	Trilafon™
Promethazine	Phenergan™
Propantheline	Pro-Banthine™
Propiverine	Detrunorm™
Quetiapine	Seroquel™
Scopolamine	Transderm Scop™
Solifenacin	Vesicare™
Thioridazine	Mellaril™
Tolterodine	Detrol™
Trifluoperazine	Stelazine™
Trihexyphenidyl	Artane™
Trimipramine	Surmontil™
Tropium	Sanctura™

### Categorical Scoring:

- Possible anticholinergics include those listed with a score of 1; Definite anticholinergics include those listed with a score of 2 or 3

### Numerical Scoring:

- Add the score contributed to each selected medication in each scoring category
- Add the number of possible or definite Anticholinergic medications

### Notes:

- Each definite anticholinergic may increase the risk of cognitive impairment by 46% over 6 years.<sup>3</sup>
- For each on point increase in the ACB total score, a decline in MMSE score of 0.33 points over 2 years has been suggested.<sup>4</sup>
- Additionally, each one point increase in the ACB total score has been correlated with a 26% increase in the risk of death.<sup>4</sup>

**Aging Brain Care**

[www.agingbraincare.org](http://www.agingbraincare.org)

## Medications Reviewed in 2012 Update

### Medications Added with Score of 1:

Aripiprazole (Abilify™)
Asenapine (Saphris™)
Cetirizine (Zyrtec™)
Clidinium (Librax™)
Desloratadine (Clarinex™)
Iloperidone (Fanapt™)
Levocetirizine (Xyzal™)
Loratadine (Claritin™)
Paliperidone (Invega™)
Venlafaxine (Effexor™)

### Medications Added with Score of 2:

Nefopam (Nefogesic™)
Doxylamine (Unisom™, others)
Fesoterodine (Toviaz™)
Propiverine (Detrunorm™)
Solifenacin (Vesicare™)
Trospium (Sanctura™)

### Medications Reviewed But NOT Added:

Fexofenadine (Allegra™)
Gabapentin (Neurontin™)
Topiramate (Topamax™)
Levetiracetam (Keppra™)
Tamoxifen (Nolvadex™)
Nizatidine (Axid™)
Duloxetine (Cymbalta™)

### Criteria for Categorization:

Score of 1: Evidence from in vitro data that chemical entity has antagonist activity at muscarinic receptor.

Score of 2: Evidence from literature, prescriber's information, or expert opinion of clinical anticholinergic effect.

Score of 3: Evidence from literature, expert opinion, or prescribers information that medication may cause delirium.

### Complete References:

- Boustani MA, Campbell NL, Munger S, Maidment I, Fox GC. Impact of anticholinergics on the aging brain: a review and practical application. *Aging Health*. 2008;4(3):311-320.
- Campbell N, Boustani M, Limbil T, et al. The cognitive impact of anticholinergics: a clinical review. *Clinical Interventions in Aging*. 2009;4(1):225-233.
- Campbell N, Boustani M, Lane K, et al. Use of anticholinergics and the risk of cognitive impairment in an African-American population. *Neurology*. 2010;75:152-159.
- Fox C, Richardson K, Maidment I, et al. Anticholinergic medication use and cognitive impairment in the older population: the Medical Research Council Cognitive Function and Ageing Study. *Journal of the American Geriatric Society*. 2011; 59(8): 1477-1483.
- Cai X, Campbell N, Khan B, Callahan C, Boustani M. Long-term anticholinergic use and the aging brain. *Alzheimers Dementia*. 2012; epub ahead of print.

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Use of the Anti-Cholinergic Burden (ACB) Scale may only be in accordance with the Terms of Use for the ACB Scale which are available at <http://www.agingbraincare.org/tools/abc-anticholinergic-cognitive-burden-scale>.

To request permission for use, contact us at [abc@agingbraincare.org](mailto:abc@agingbraincare.org).

Aging Brain Care

ANTICHOLINERGIC  
COGNITIVE BURDEN  
SCALE

2012 Update

Developed by the Aging Brain Program  
of the Indiana University Center for  
Aging Research



In clinical practice, anticholinergic burden should be minimized to reduce the impact associated with excessive cholinergic inhibition

However, there is no standardized consensus on how to quantify the anticholinergic burden

The current anticholinergic drug scales simplify complex pharmacological mechanisms, which is particularly problematic in geriatric risk assessment



Salahudeen MS. *Drugs Aging* 2016;33:305–313.  
Kersten H. *Basic Clin Pharmacol Toxicol* 2014;114(2):151-9.  
Salahudeen MS. *BMC Geriatr* 2015;15:31.  
Collamati A. *Aging Clin Exp Res* 2016;28(1):25-35.  
Kelly M. *Pharmacotherapy* 2005;25(11):1592–1601.

# So what...?

A high level of anticholinergic burden is associated variably with decreased physical function, cognitive decline, falls, hospital admission and increased all-cause mortality

*Aging Health* 2008; 4(3): <https://doi.org/10.2217/1745509X.4.3.311>  
*Journal of the American Geriatrics Society*. 2011;59(8):1477-1483  
*Drugs & aging*. 2013;30(5):321-330  
*The American Journal of Geriatric Pharmacotherapy*. 2012;10(4):251-257  
*Journal of the American Medical Directors Association*. 2011;12(8):565-572.  
*The American Journal of Geriatric Psychiatry*. 2013;21(8):785-793.

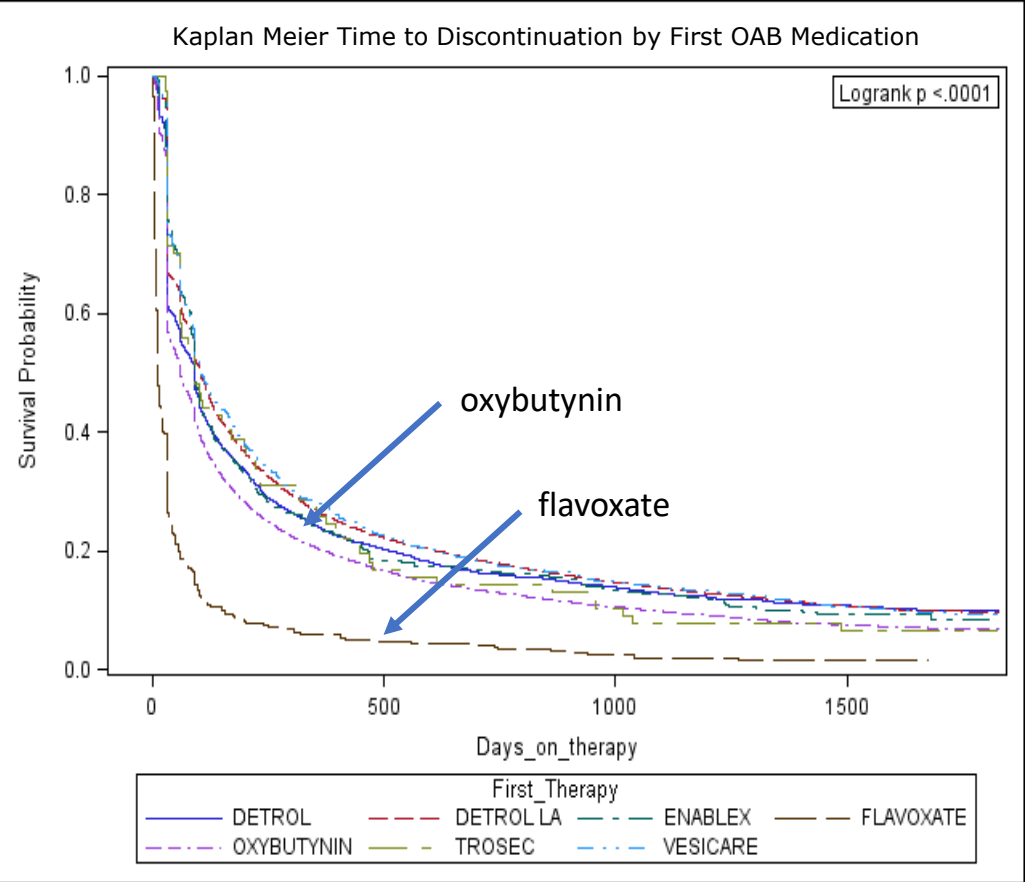
# Medication management

Review medications which might compromise successful toileting and potentially add to anticholinergic load

- Anticholinergic load (amitriptyline, tiotropium, furosemide)<sup>1,2</sup>
- Impaired emptying (amitriptyline, tiotropium)<sup>2,3</sup>
- Polyuria (dapagliflozin,<sup>4</sup> furosemide<sup>5</sup>)

1. Aging Brain Care. *Anticholinergic Cognitive Burden Scale* 2008, 2012 Update.
2. Tiotropium Summary of Product Characteristics. 2016.
3. Amitriptyline Summary of Product Characteristics. 2016.
4. Dapagliflozin Summary of Product Characteristics. 2017.
5. Furosemide Summary of Product Characteristics. 2016.

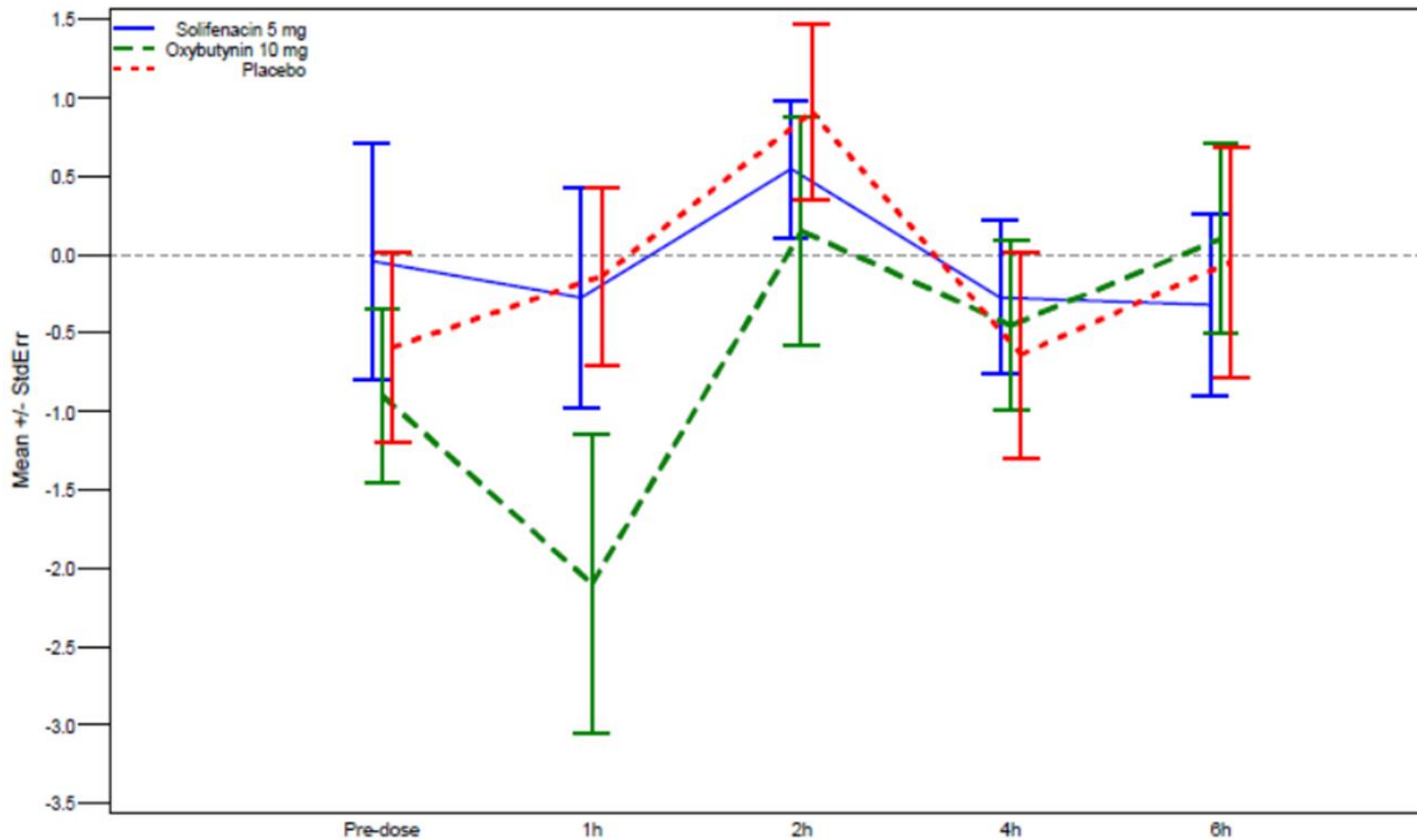
# Reason 3 – avoid immediate release oxybutynin



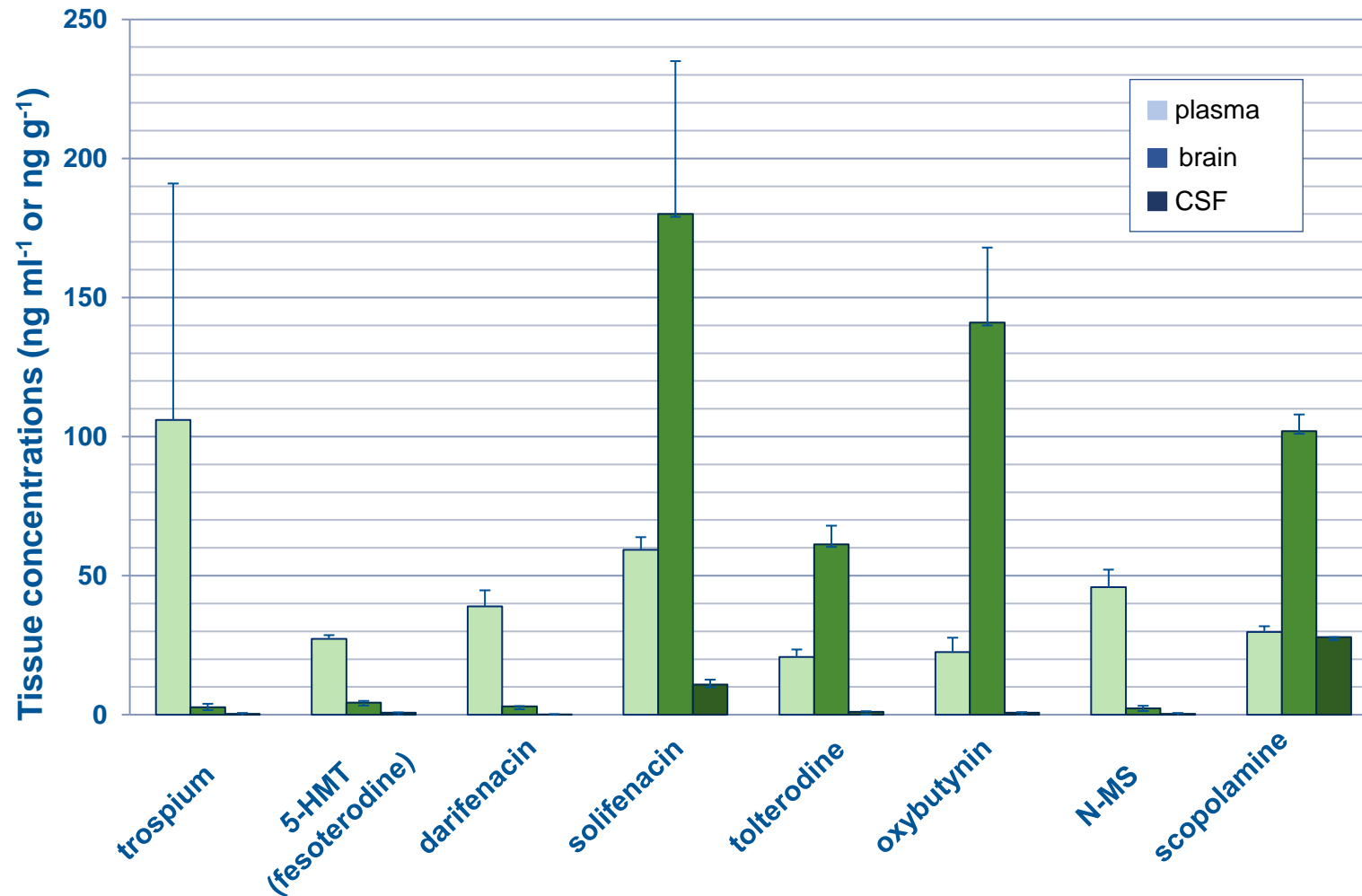
	N (patients)	Median (days)	Mean (days)	St. Error
Oxybutynin	16,315	60	287	3.83
solifenacin	1,133	106	380	16.06
tolterodine	2,607	90	343	10.46
Tolterodine ER	10,994	100	376	5.26
darifenacin	290	90	341	30.26
Trospium	77	90	304	48.64
Flavoxate	291	10	83	13.16



# Oxybutynin exposure leads to transient cognitive impairment in older adults with MCI



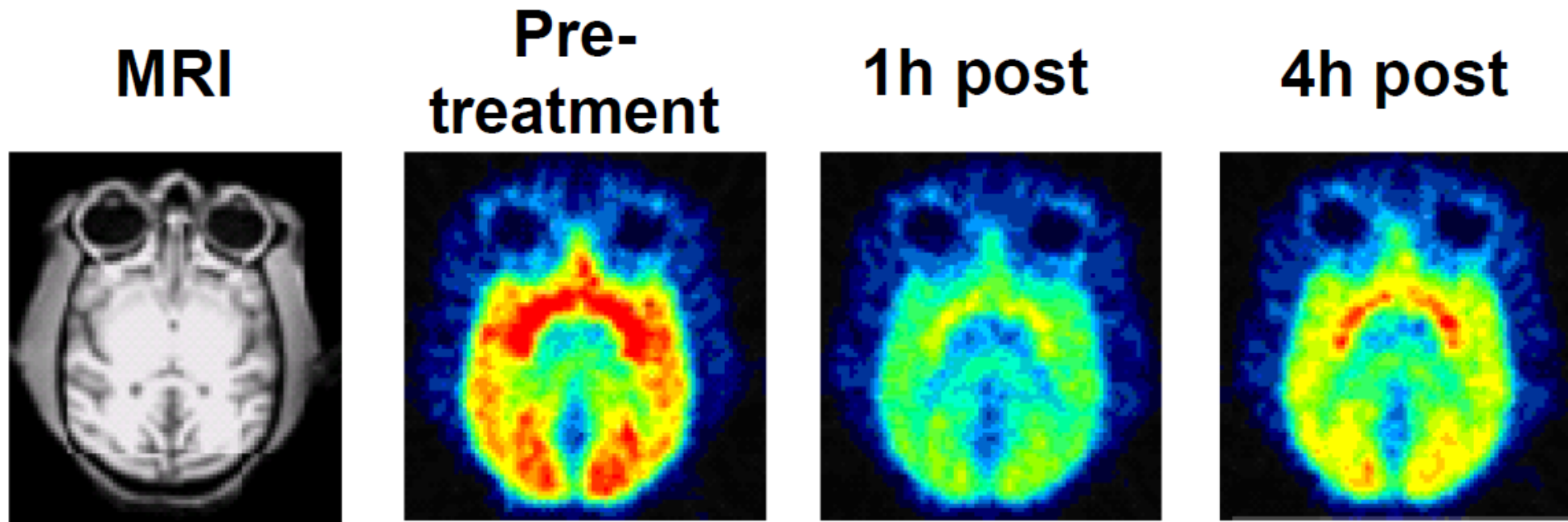
Antimuscarinic concentrations in plasma, brain and CSF following subcutaneous dosing in rats



- Brain penetration was low for antimuscarinics that were P-glycoprotein substrates:
  - 5-HMT (fesoterodine)
  - tropium
  - darifenacin<sup>1</sup>
- Brain penetration was significant for those that were not P-glycoprotein substrates:
  - oxybutynin
  - solifenacin
  - tolterodine<sup>1</sup>

Error bars represent SDs. N=3.

# Drug penetration and activity



Time course effects of oral oxybutynin (0.3mg/kg) on [11C](+)-3-MPB binding to muscarinic receptors in the brain of conscious monkey as measured by PET

# Oxybutynin associated with fractures in VA population

Summary of Risks and Benefits Associated With Bladder Antimuscarinic Initiation

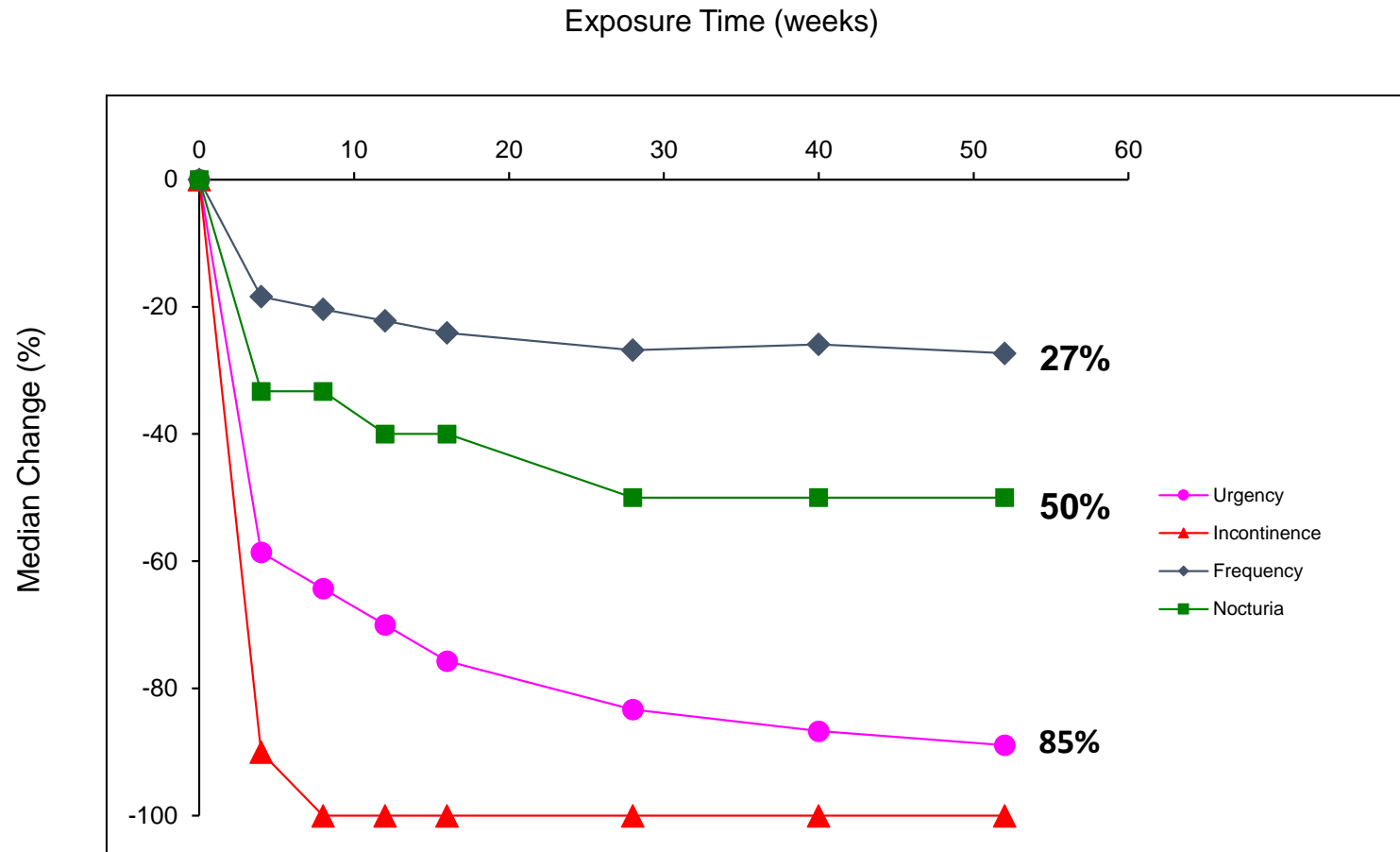
End Point	Measurement	Point Estimate	95% Confidence Interval		P Value
<b>Risks</b>					
Hip fracture*	Hazard Ratio	3.67	1.46	9.34	.0059
“Any” fracture*	Hazard Ratio	2.64	1.37	5.10	.0039
Cognitive Performance Scale <sup>†</sup>	Difference in Mean Score (new users vs nonusers)	0.005	-0.095	0.105	.9214
<b>Benefits</b>					
Improvement in Urinary Incontinence <sup>‡</sup>	Odds Ratio	1.27	1.07	1.50	.0064
Index of Social Engagement <sup>§</sup>	Difference in Mean Score (new users vs non users)	0.2074	0.055	0.3598	.0076
Health Status Index <sup>  </sup>	Difference in Mean Score (new users vs nonusers)	-0.0005	-0.0168	0.0158	.9557

# Medication management

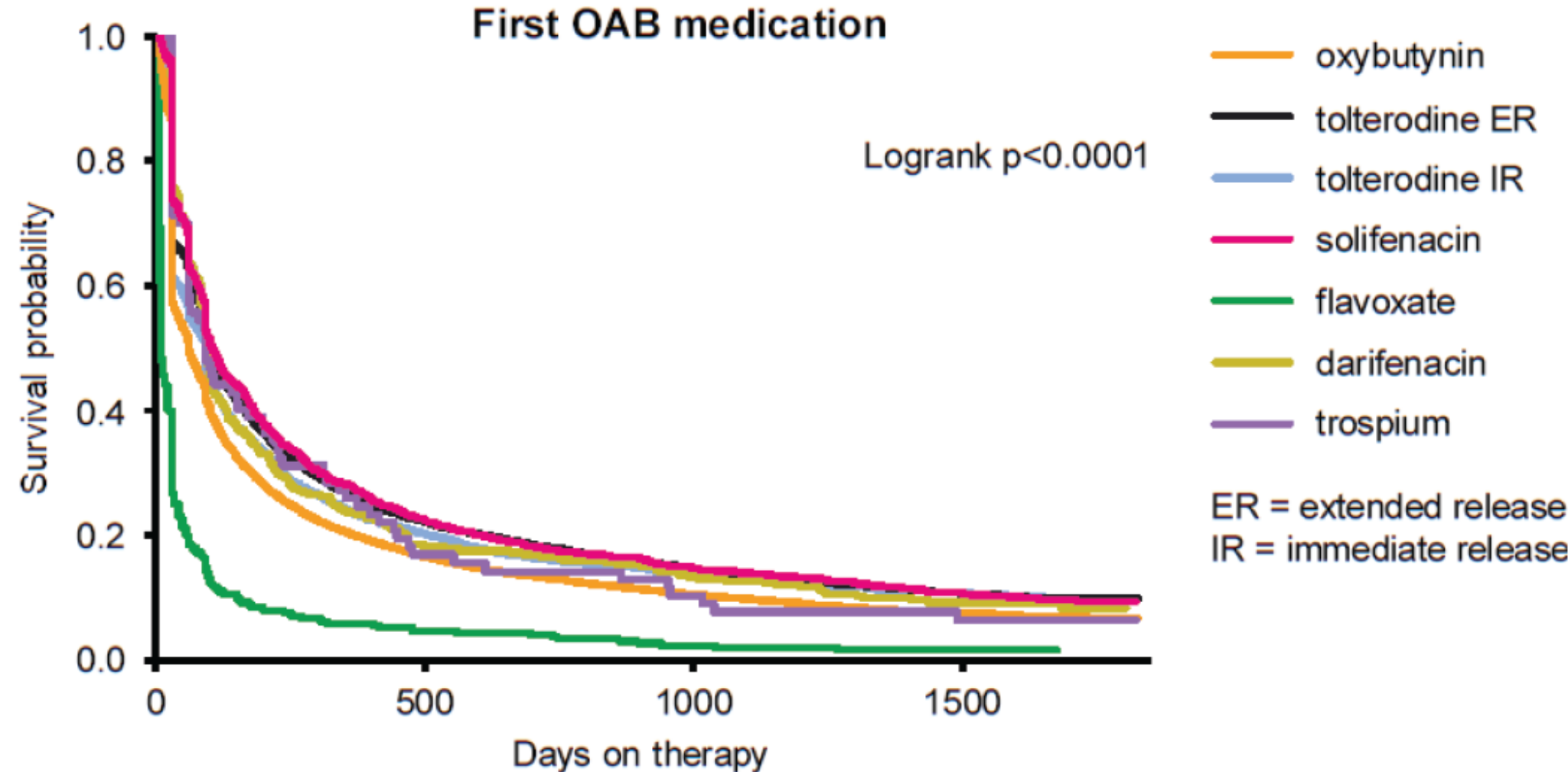
**Stop the oxybutynin, although....**



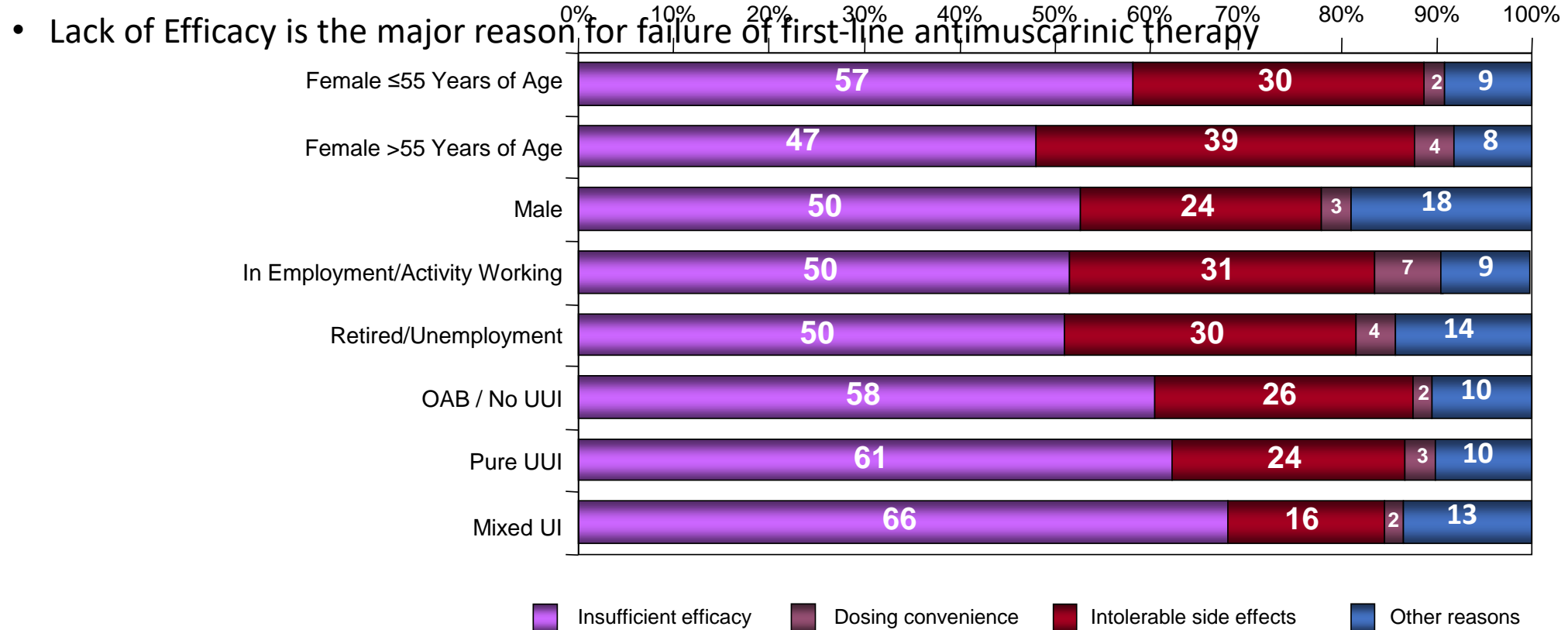
# How long might it take to achieve a good result?



# Time to cessation of therapy on 1<sup>st</sup> drug - Canada



# Why do patients stop taking antimuscarinic therapy?



Reference: Global Market Research Study (Astellas, December 2003;n=736).



Case 2. OK, so what else can a pharmacist do?

# Bert...

- Is miserable...
- he had a prostatectomy for localized cancer 8 years ago
- Since then he has been incontinent and only goes to the washroom 2x per day



Every time he gets up,  
coughs or lifts  
anything.. He leaks

He soaks 13 pads per  
day

These cost him a lot of  
money

He has severe urgency  
and his FOP has put  
him on solifenacin

>\$60/week



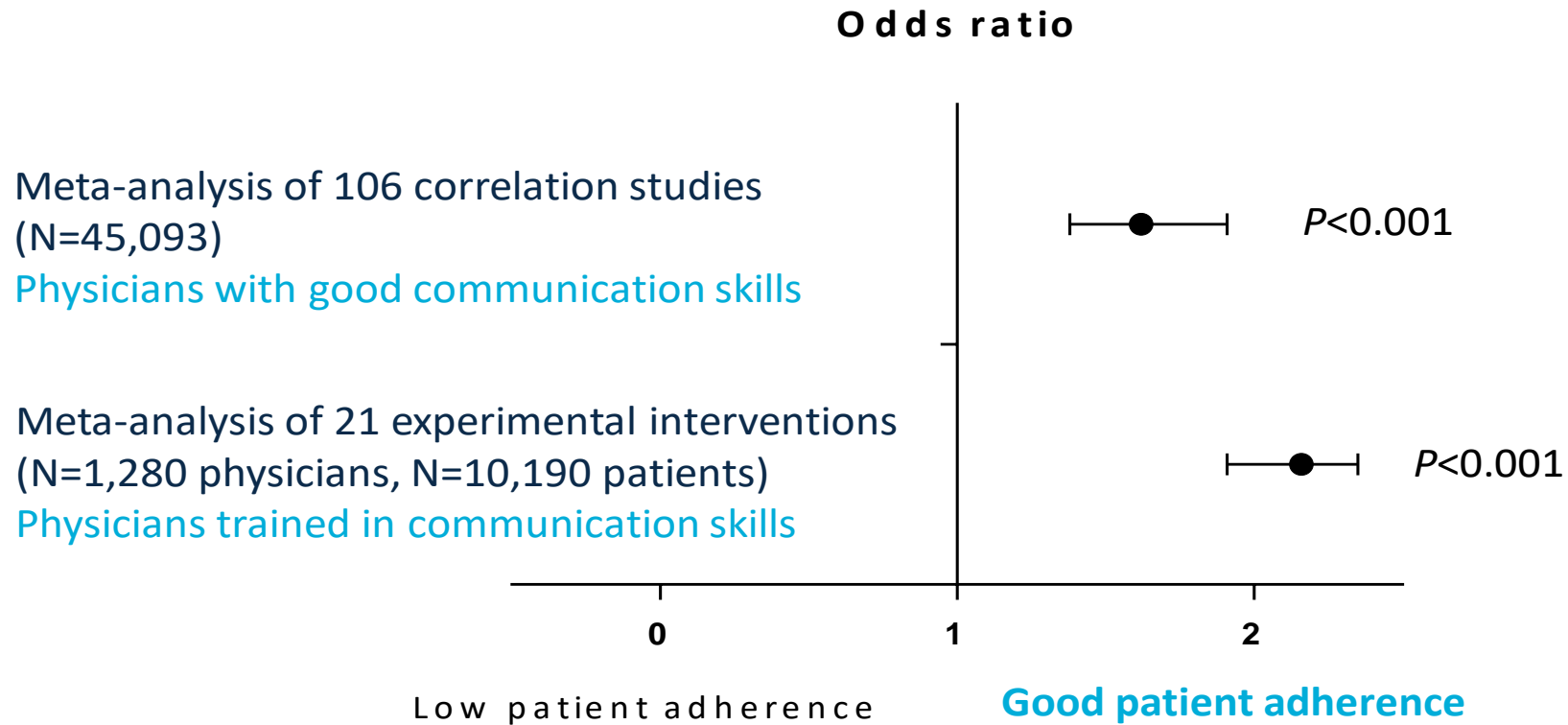
# The power of “the chat”



- Visits give clinicians the opportunity to be therapeutic agents in the provision of health care.
- Communication between physician and patient can have far-reaching implications for the physical and mental health of older patients.
- Effective physician-patient communication involves the exchange of both *biomedical* and *psychosocial* information as well as the *emotional and affective care* that is so important to older patients' health outcomes.
- The development of a trusting therapeutic relationship can be central to the health care of older patients.

# Strong correlation between patient adherence and good physician communication

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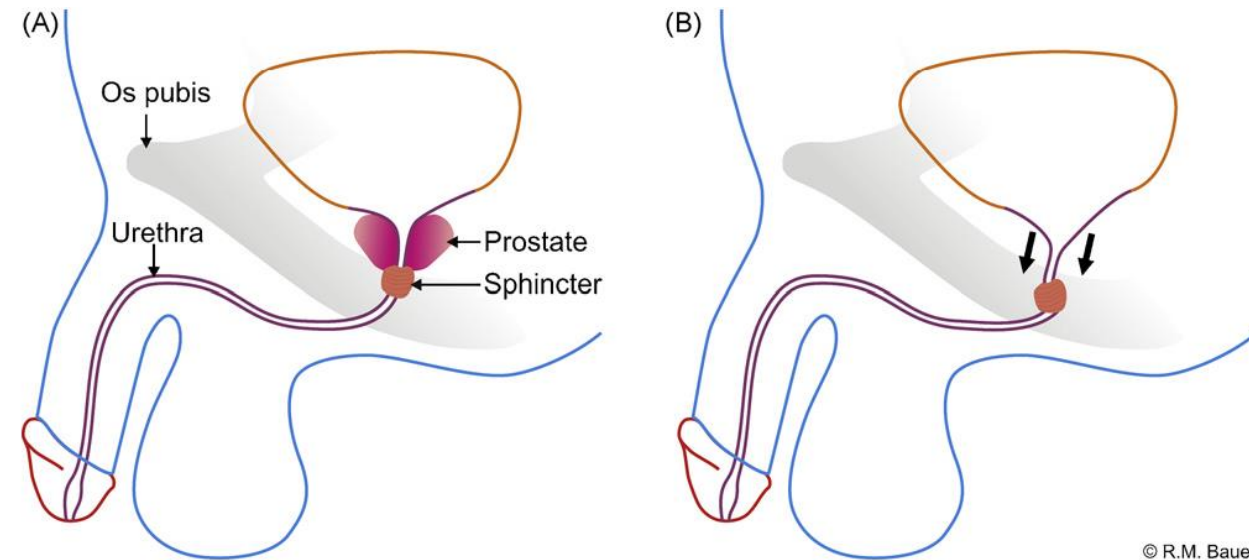


# His pharmacist chats....

- He has had a severe dry mouth since he started on his solifenacin
- He drinks copiously to relieve this....
- This exacerbates his urinary leakage and pad use
  
- What is his diagnosis?

# He has post prostatectomy incontinence

- This is like stress incontinence in women and affects >1:10 men after a radical retropubic prostatectomy
- Why does he have “urgency” and why is his FP wrong?





# Are we able to realistically explain likely outcomes from our suggested treatments?

- On what information do we rely?
- Trial data give us changes in population means
- Is the population relevant?
- Is the circumstance similar?
- What proportion of people improve, and to what extent?

# Expectations of treatment – community dwelling older people

	YES (n)	%
Complete cure of all of your bladder problems	12	<b>10.6</b>
A good improvement so that they no longer interfere with your life	56	<b>49.6</b>
Being able to cope with your bladder problems better so that they affect your life less	34	<b>30.1</b>
Any improvement in your bladder problems no matter how small	11	<b>9.7</b>

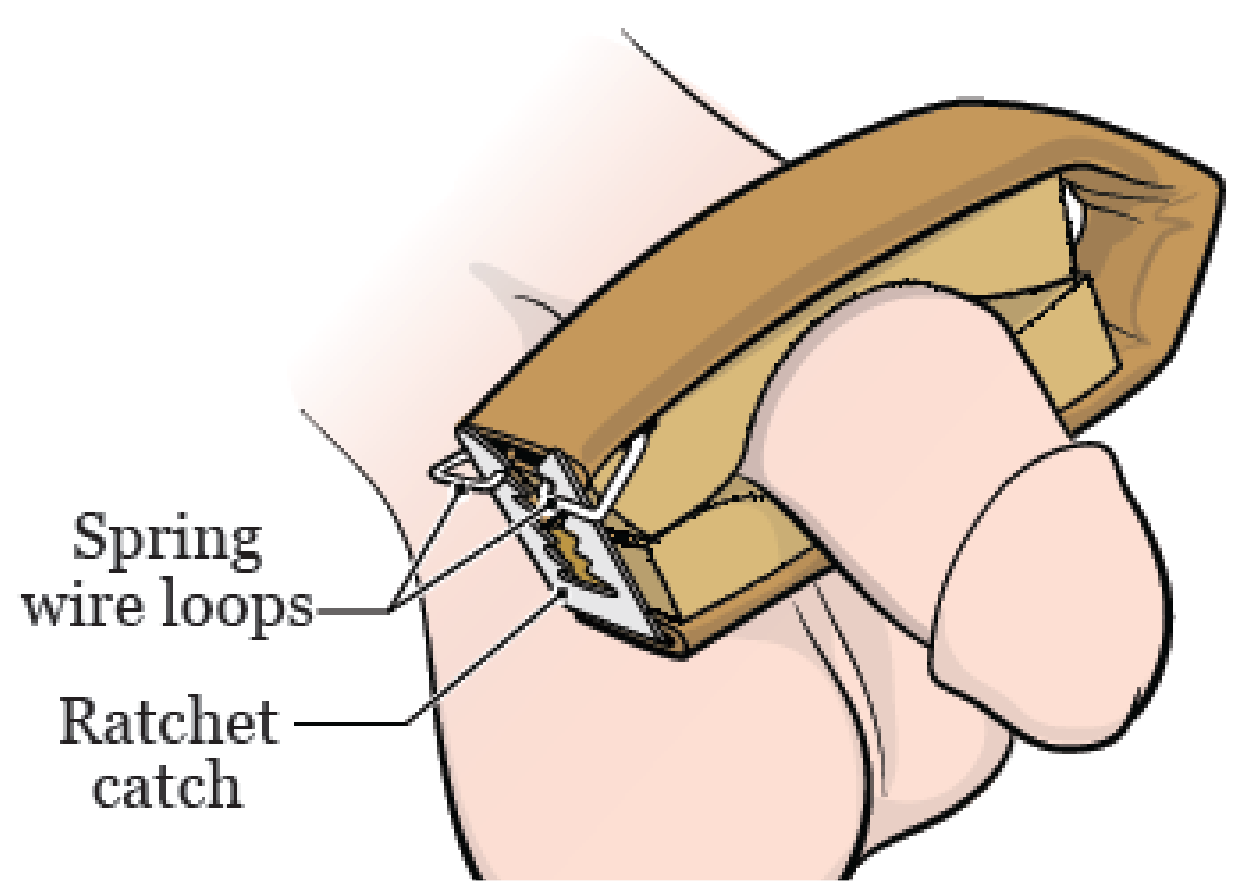
# Older persons views on what they'd undertake for treatment of UI

	Yes (n)	%	No (n)	%
Pelvic floor exercises for 6 months	75	<b>67.0</b>	37	<b>33</b>
Pelvic floor exercises for the rest of your life	41	<b>38.7</b>	65	<b>61.3</b>
Regular medication (pills) for the rest of your life	58	<b>50.4</b>	57	<b>49.6</b>
Medications (pills) to take just when you need them	94	<b>85.5</b>	16	<b>14.5</b>
Major surgical operation	14	<b>12.6</b>	97	<b>87.4</b>
Minor surgical operation	23	<b>20.9</b>	87	<b>79.1</b>
Long term catheter in your bladder	7	<b>6.2</b>	106	<b>93.8</b>
Learning to catheterize yourself	15	<b>13.3</b>	98	<b>86.7</b>
Wearing a pessary and removing it / cleaning it yourself*	18	<b>22.5</b>	51	<b>64.6</b>

\* Women only

# A pharmacist can...

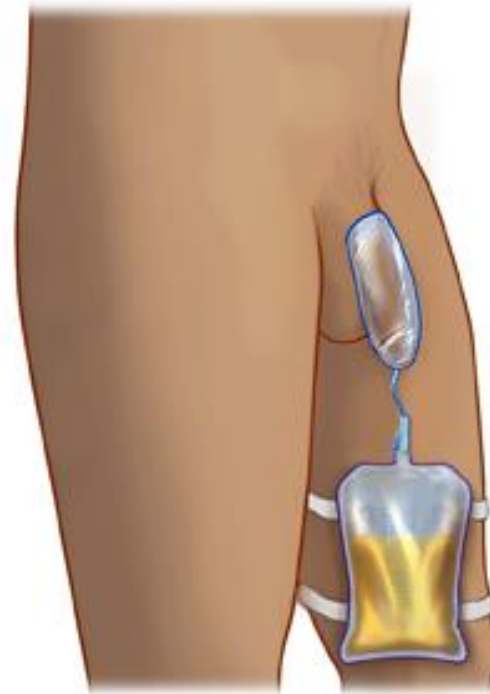
- Recommend cessation of the solifenacin... AE & inefficacy
- Listen to the patient
- Know that alternative containment products are available
- Suggest alternatives to pads...



The Cunningham clamp

# Condom catheters

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Condom catheter

# Bert...progress

- His solifenacin was stopped
- He did not want further surgery
- He was not keen to try a Cunningham clamp
- A trial of a condom catheter by home care was unsuccessful – it fell off nearly every day
- He was assessed by AADL for pads as he had daily intractable incontinence, and was given pull-ups. He uses 4/day and toilets regularly – 1-2hrly throughout the day

# So, in summary

- Pharmacists in long term care can...
  - Be aware of a problem
  - Detect the symptoms and think about the underlying causes and contributing factors
  - Optimise drug therapy to minimise the likelihood of unsuccessful toileting
  - Optimise drug therapy FOR urgency incontinence



- Develop a therapeutic relationship with patients to help them cope
- Suggest practical solutions to help the maintenance of continence
- Be aware of alternatives to containment products

We're Done.



Questions?