

Refractory urinary incontinence

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Consultant Urologist
(Female Urology, incontinence)

March 2017

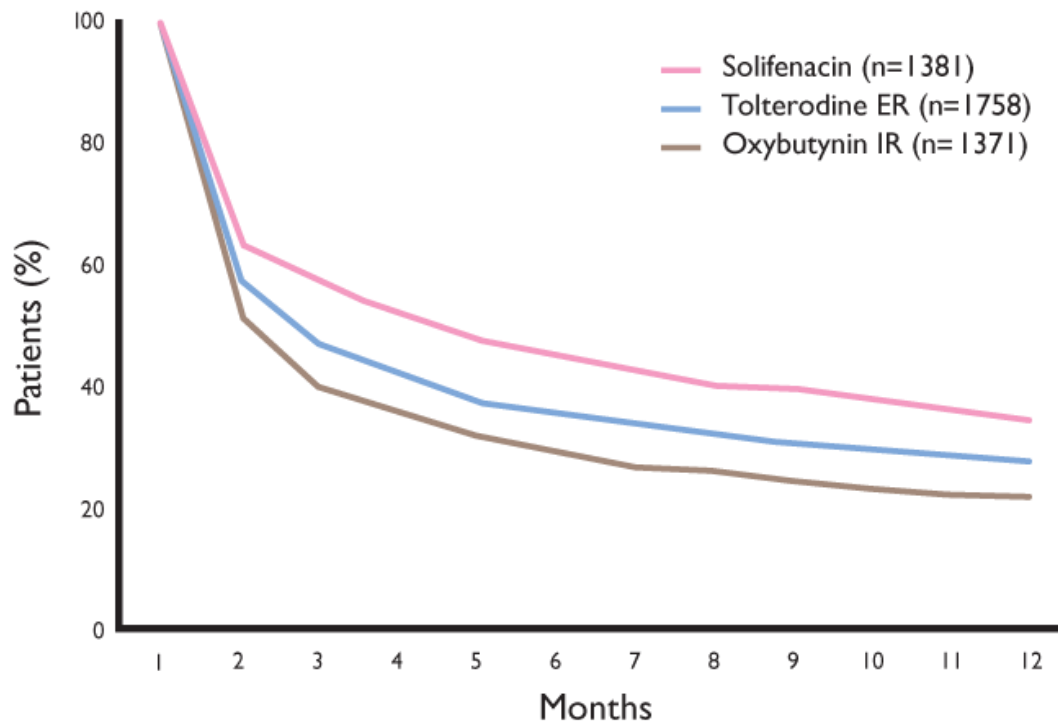
Second line drug therapy

Shaya FT, Am J Manag Care. 2005

n = 1637

oxybutynin → 32% still taking > 30 days

others → 44% still taking > 30 days

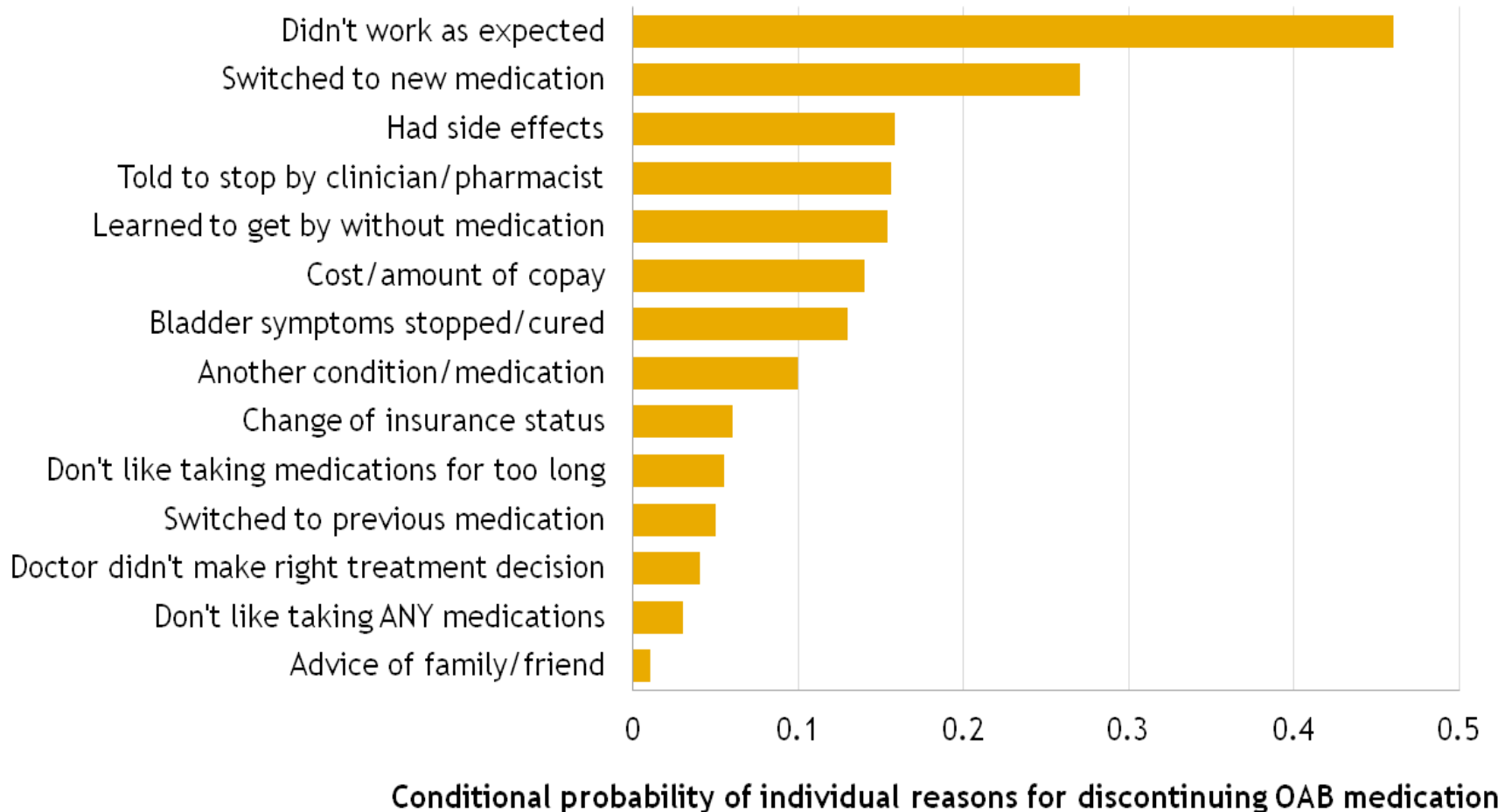


ER, extended release; IR, immediate release
Adapted from Wagg *et al.*, 2012.¹

1. Wagg A *et al.* *BJU Int* 2012;**110**(11):1767–1774.

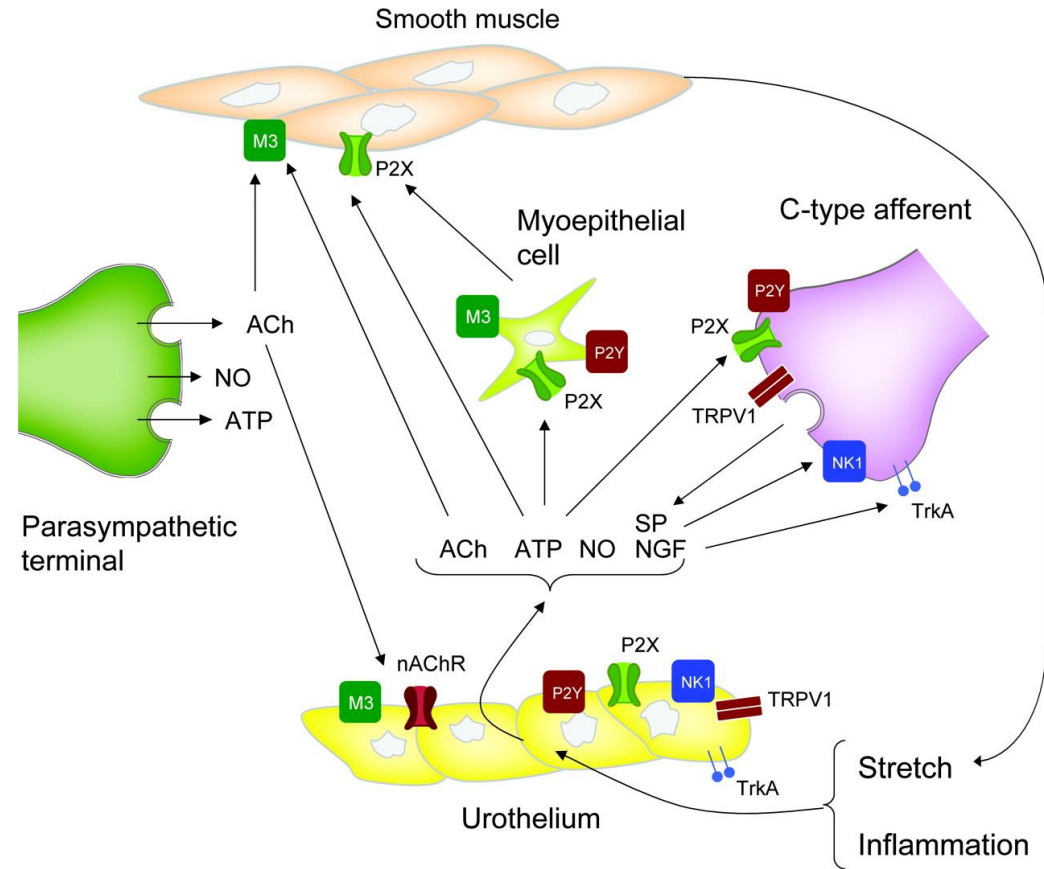
Why stop taking drugs for OAB?

Benner JS, BJUI 2010

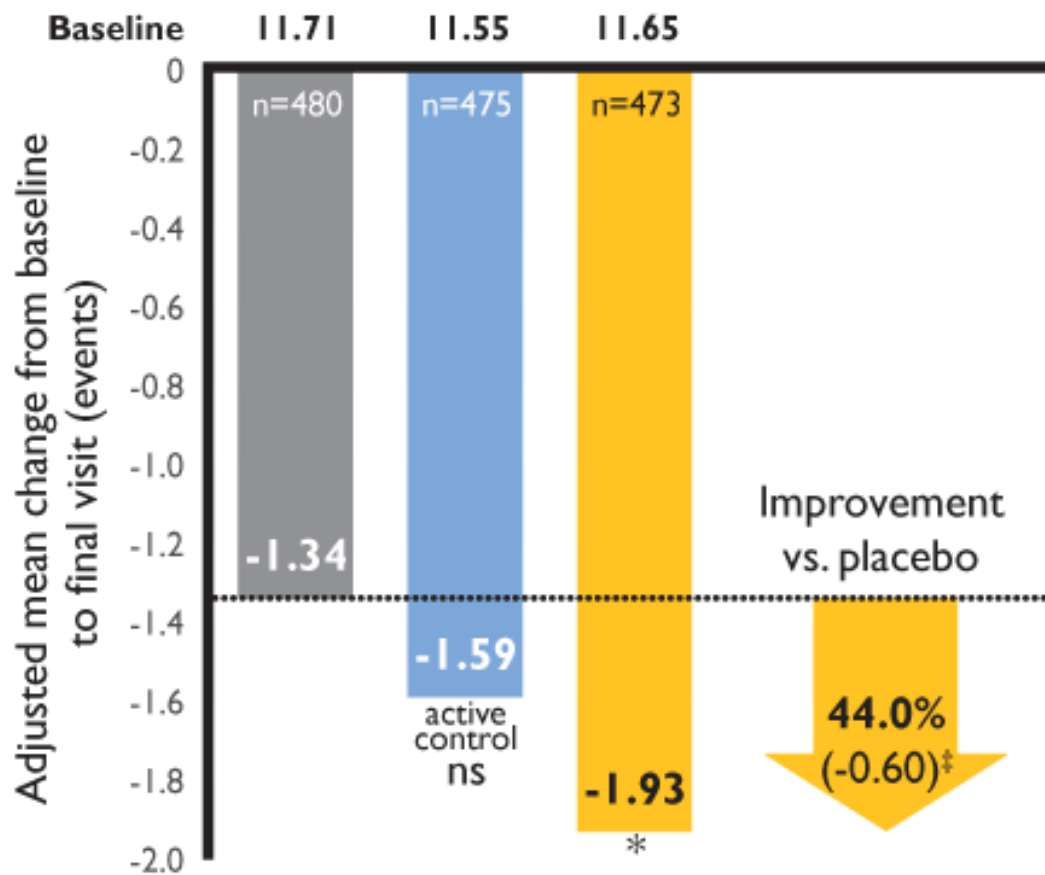


Other Drug Therapies

- Anti-cholinergics
- β -3 agonists
 - Mirabegron
- Purinergic signalling
- TRPV-1 antagonist
 - XEN-D0501



Mirabegron 50mg daily



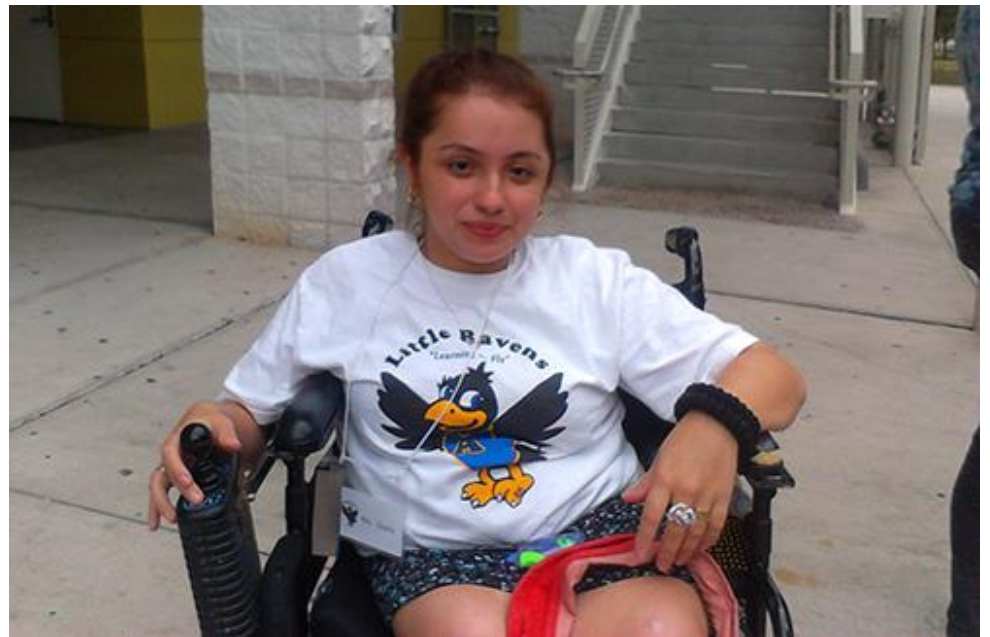
**Mirabegron = £29
for 30 days**

Oxybutynin = £5
Most others = £25
Solifen 10mg = £33

Side effects

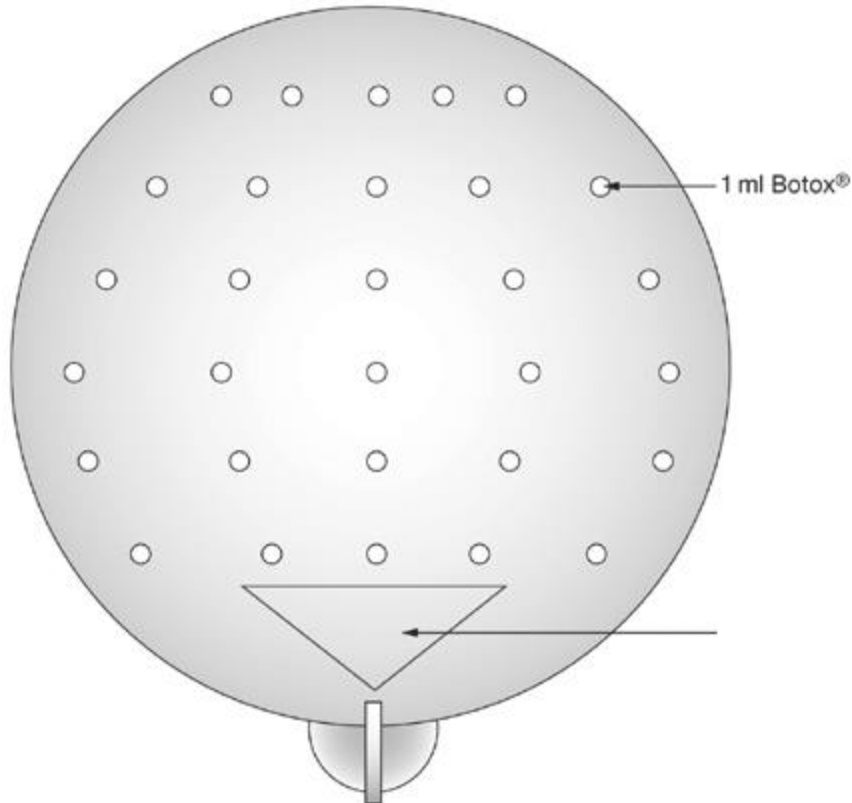
Adverse events %	Placebo (n=494)	Mirabegron 50mg (n=493)	Tolterodine ER 4mg active control (n=495)
Dry mouth	2.6%	2.8%	10.1%
Constipation	1.4%	1.6%	2.0%
Hypertension	7.7%	5.9%	8.1%
Nasopharyngitis	1.6%	2.8%	2.8%
Headache	2.8%	3.7%	3.6%
Urinary tract infection	1.4%	1.4%	2.0%

What next?



Botox

100 ml bladder volume



- 10 x 1ml injections
- 100 U Botox
- 200 U for neuropaths
- 1 or 2 trigone injections

Botox evidence

European Urology 2012 (Doug Tincello)

The “Relax” Study	n = 240		
voids	8.3	v	9.6
urgency	3.8	v	6.3
leaks	1.7	v	1.3

BUT ISC = 16%



J Urol. 2010 Dmochowski

Dose-ranging study n = 313
0, 50, 100, 150, 200 or 300 U Botox.

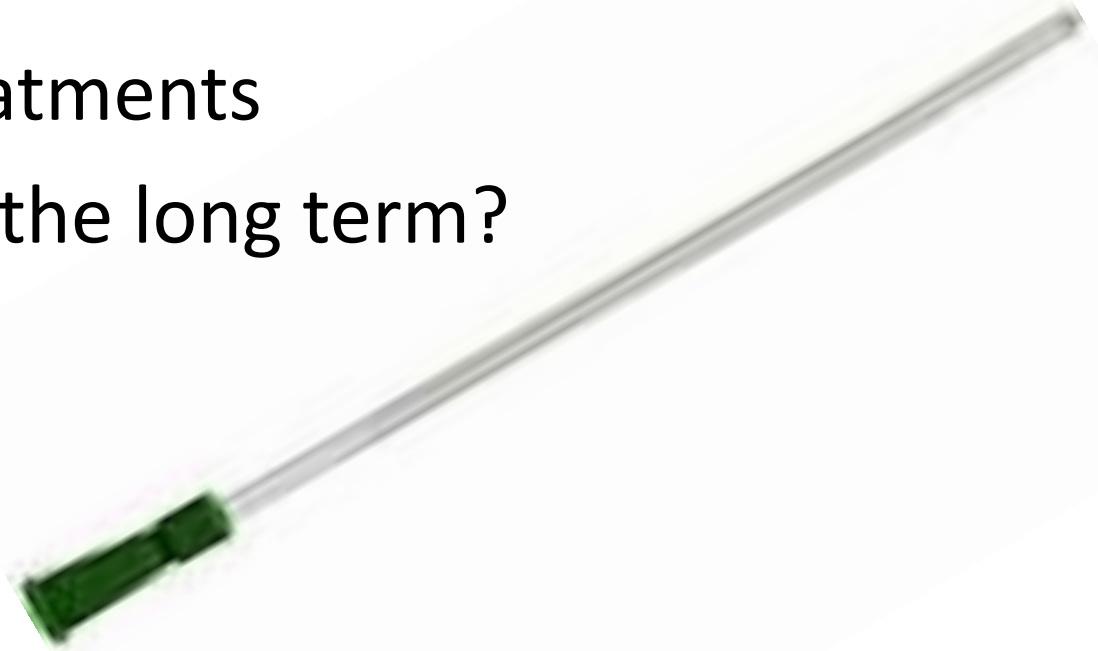
- 100U = effective
- No additional benefit > 150U
- ISC rate = dose dependent

Nottingham Experience

- n = 550 over 4 years
- Overall:
 - success rate 90% (global patient reported satisfaction)
 - ISC in 25%
 - Dysport has more retention and ISC than Botox
- Must check for retention
 - esp if non-specific symptoms
 - or UTIs
 - or failed treatment (many have worked really, but are retaining)
- Open appointments and reinject when needed
(open access)

But...

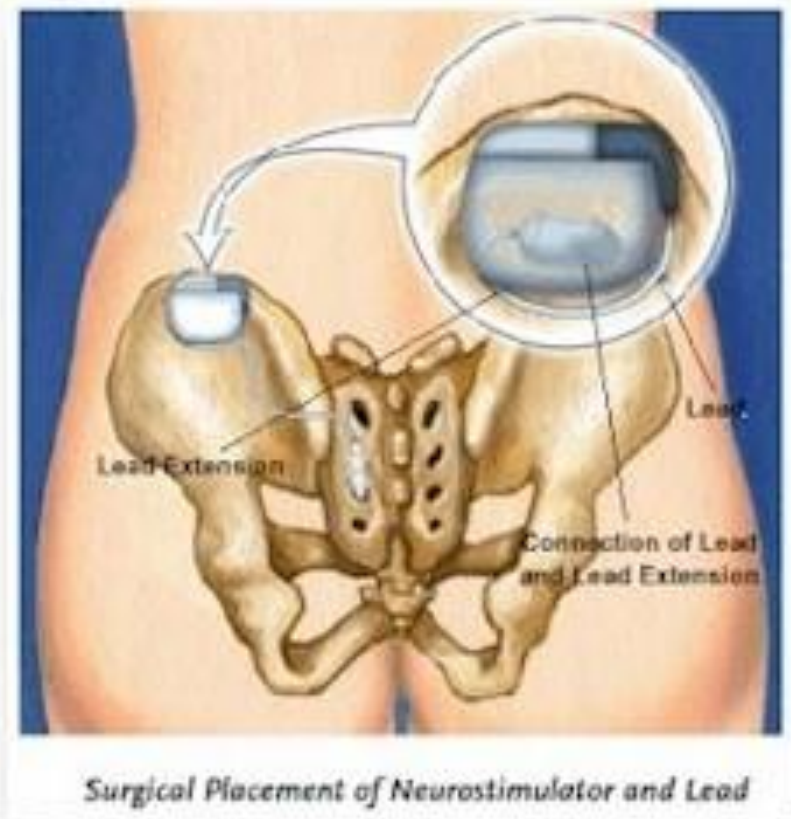
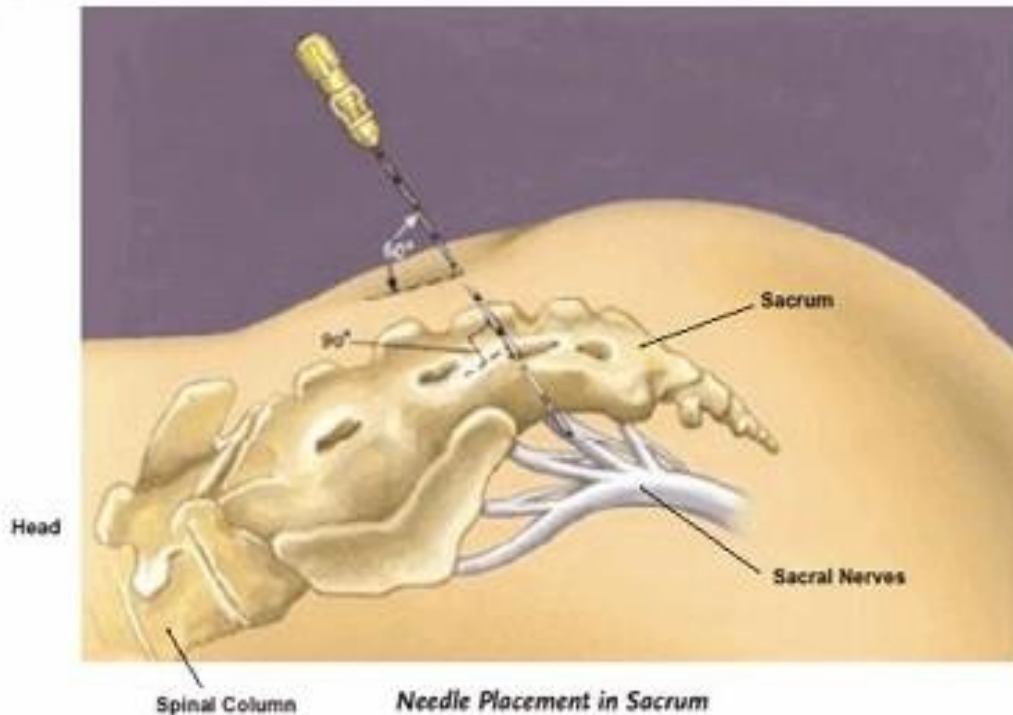
- ISC 25% ?
- Multiple treatments
- What about the long term?





PTNS

Sacral Neuromodulation



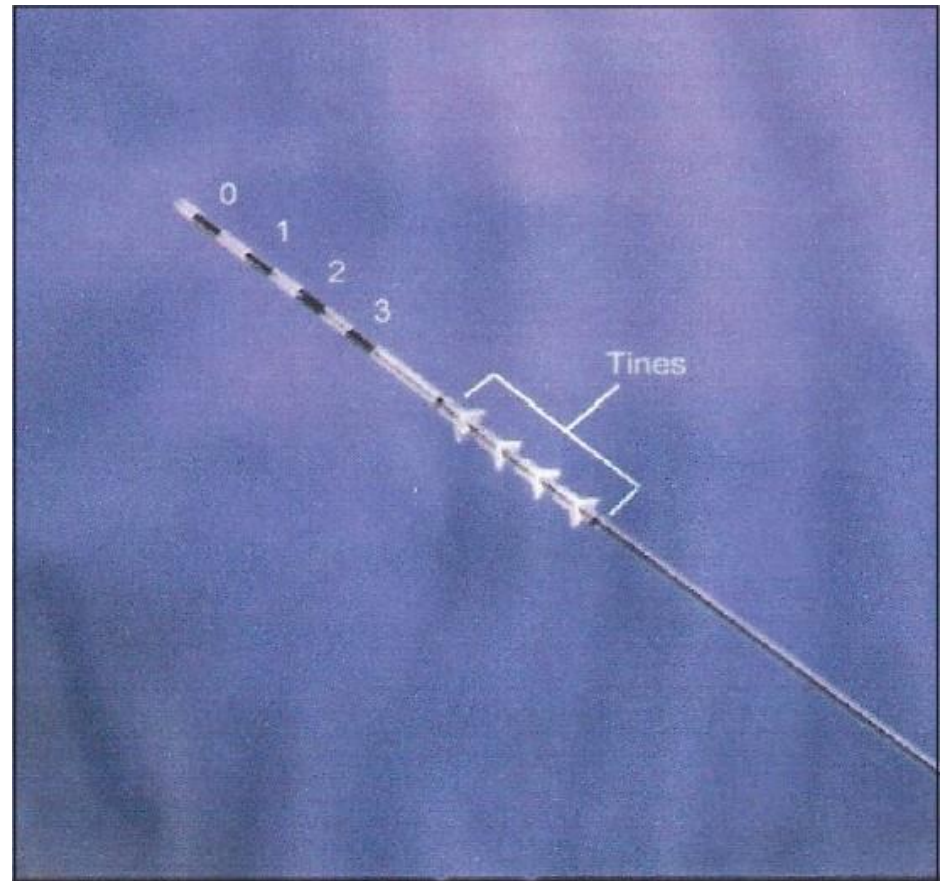
SNM – Test phase (PNE)

- Temporary electrode vs tined lead
 - External (belt) stimulator unit
 - 2 weeks (? 4 weeks for Fowler's sy)
 - esp S3



SNM – permanent implant

- Permanent implant:
 - tined lead
 - implanted device



Brazelli J Urol 2006

- Review for OAB / UI

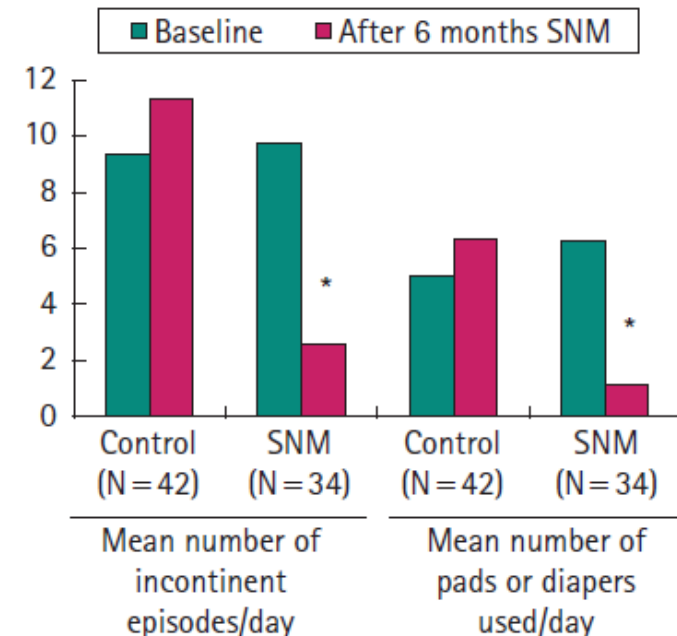
References	No. Pts	Mean Stimulation Group $\pm$ SD		Weil et al ⁷ Schmidt et al ⁵ Weil et al ⁶
		Baseline	6 Mos	p Value
Leakage episodes/day:				
Weil et al ⁷	21	13.5 $\pm$ 7.5	1.4 $\pm$ 3.3	<0.0005
Schmidt et al ⁵	34	9.7 $\pm$ 6.3	2.6 $\pm$ 5.1	<0.0001
Pad use/day:				
Weil et al ⁷	21	8.7 $\pm$ 6.8	0.7 $\pm$ 1.3	<0.0005
Schmidt et al ⁵	34	6.2 $\pm$ 5.0	1.1 $\pm$ 2.0	<0.0001
Leakage severity:*				
Weil et al ⁷	21	2.1 $\pm$ 0.6	1.6 $\pm$ 1.7	Not significant
Schmidt et al ⁵	34	2.0 $\pm$ 0.7	0.8 $\pm$ 0.9	<0.0001
ml bladder capacity				

Chartier-Kastler BJUI 2008

TABLE 2. Success rates at 6 months in randomized, controlled trials

References	No./Total No. (%)	
	Cured	Improved
Stimulation group:		
Weil et al ⁷	9/16 (56)	Not reported (29)
Schmidt et al ⁵	16/34 (47)	10/34 (29)
Weil et al ⁶	Not reported	5/5 (100)
Delay group:		
Weil et al ⁷	1/22 (5)	0/22
Schmidt et al ⁵	0/42	2/42 (5)
Weil et al ⁶	Not reported	Not reported

FIG. 3. SNM significantly improves urinary incontinence in patients with UUI. *P < 0.001 vs control group [14].



Surgical management of OAB

- Clam ileocystoplasty
 - bivalve bladder (sagittally or transversely)
 - patch of detubularised ileum
- ISC (40-80% ?)
- recurrent UTI
- mucous production
- small risk cancer in long-term

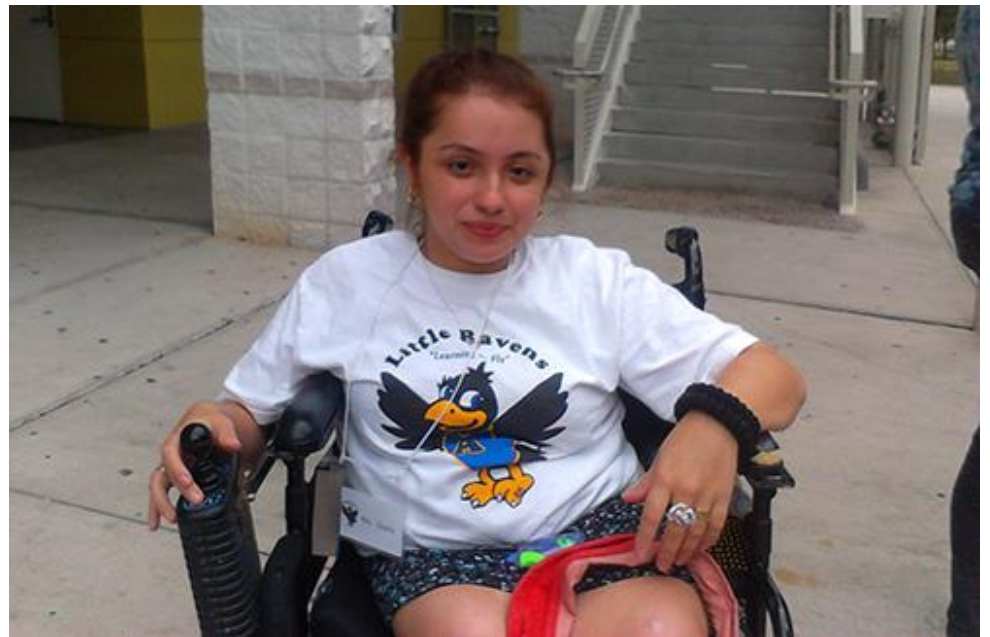
Stress Urinary Incontinence

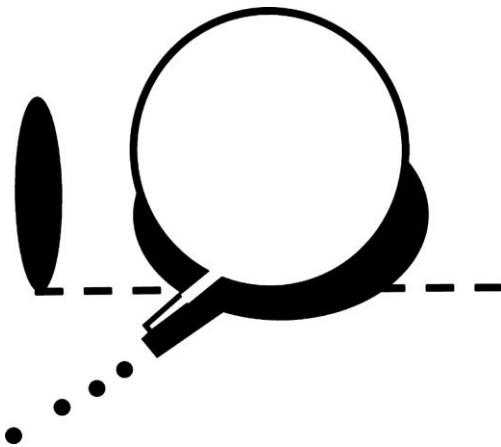
- Involuntary loss of urine during coughing, sneezing or physical activity



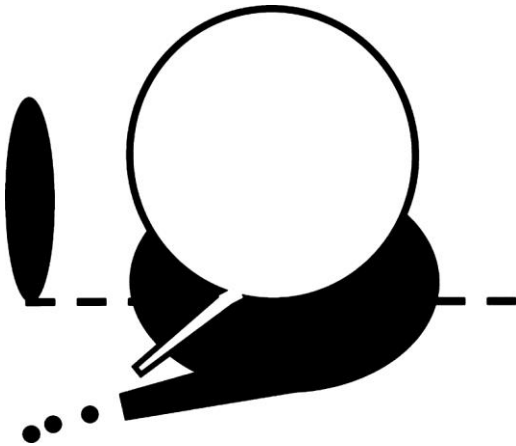
Initial treatment

- Physiotherapy and pelvic floor exercises
- Weight loss
- Pads
- Then what...?



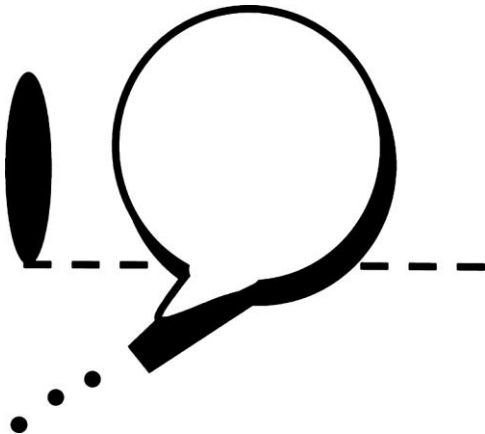


Type I: < 2cm descent



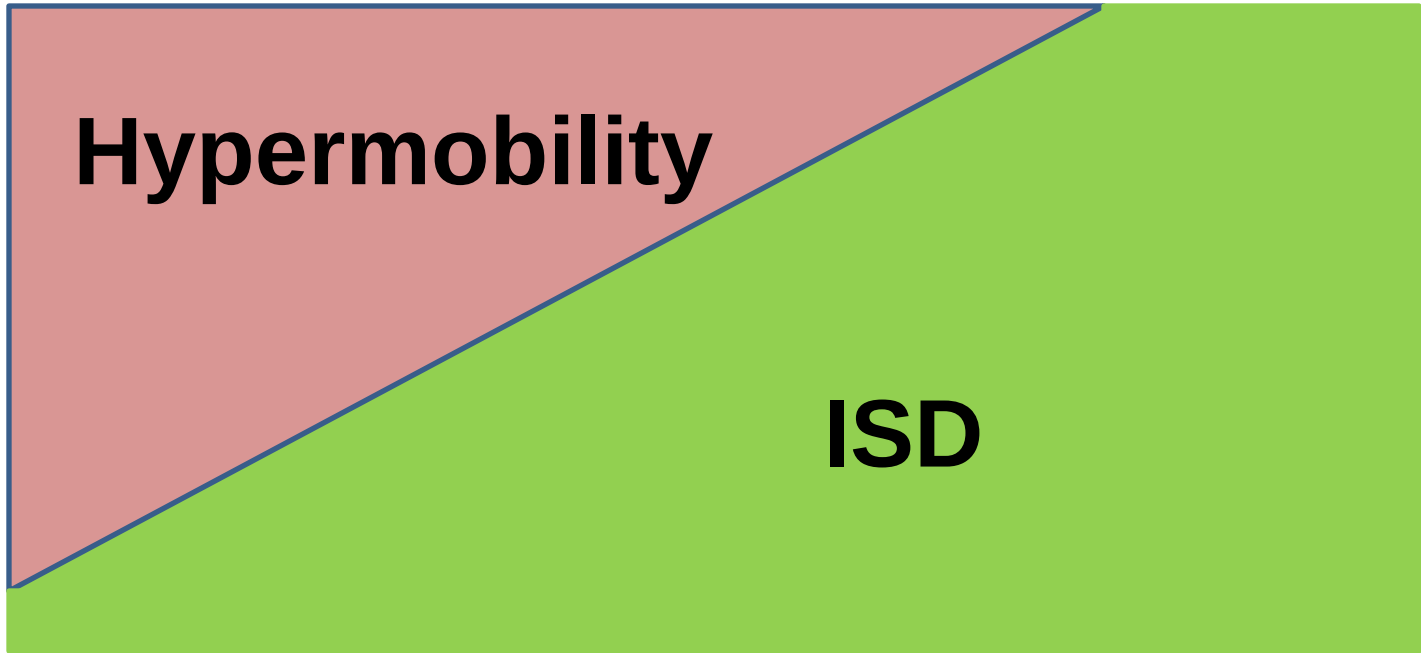
Type II: rotational descent

(IIb = abnormally low resting position)



Type III: Intrinsic sphincter deficiency

(Blaivas and Olsson, 1988)

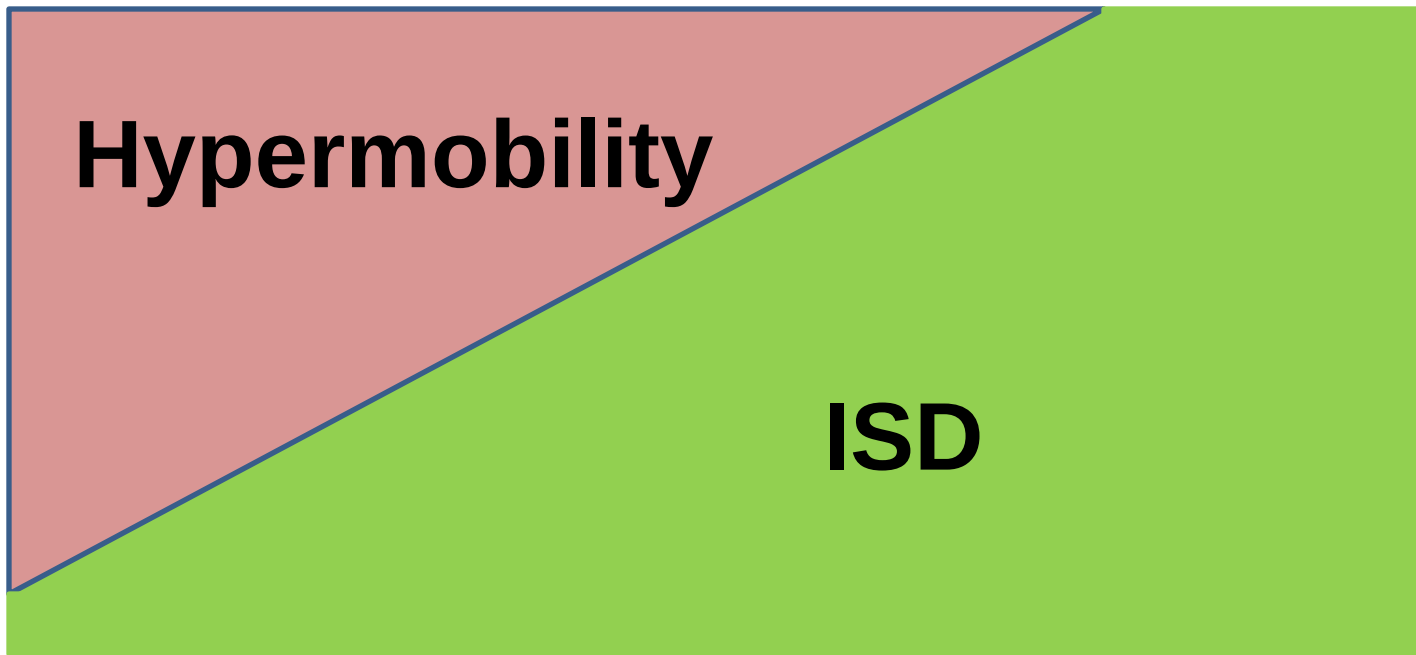


Varying degrees of hypermobility and ISD in patient with SUI
ISD always present to some degree

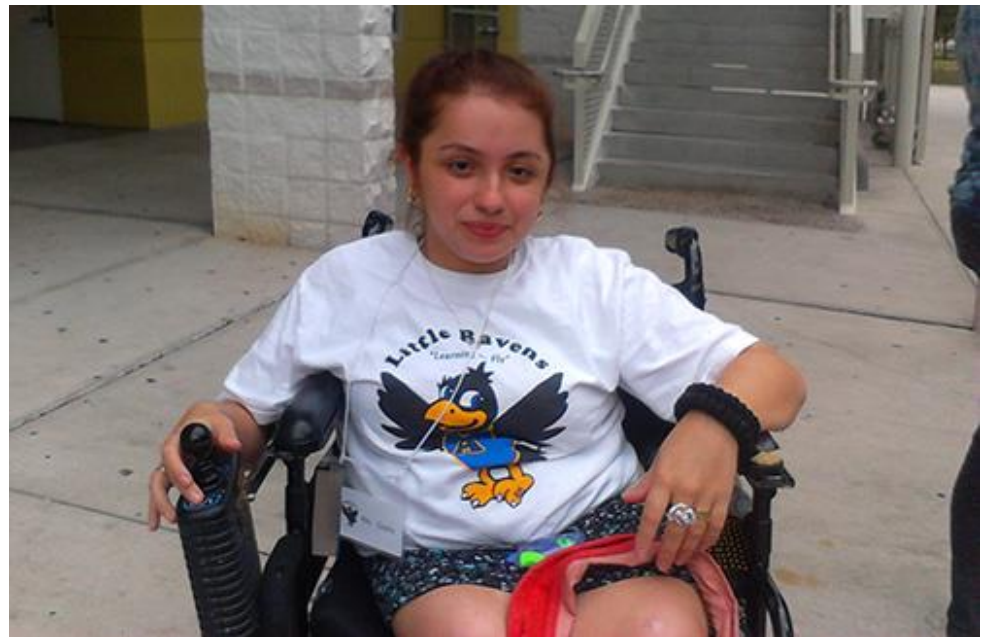
**Periurethral agents
and devices / AUS**



Tapes / slings



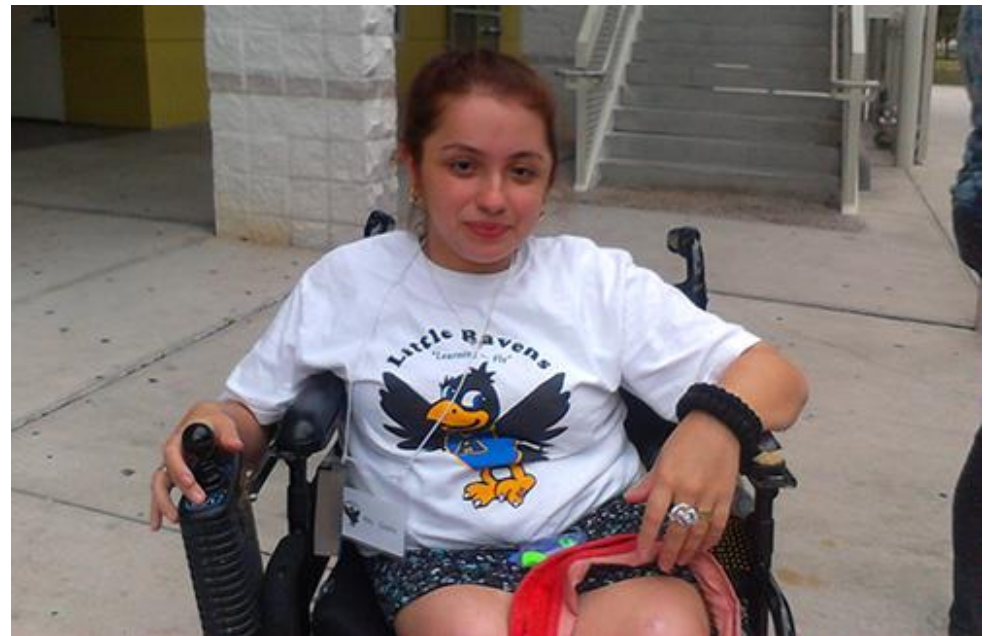
Varying degrees of hypermobility and ISD in patient with SU
?? ISD always present to some degree





- Consider pros and cons of surgery
- Usually pretty straightforward

- Consider emptying (ISC)
- Consider bladder pressures and NDOA
- Usually pretty straightforward





- Consider severity of symptoms
- Consider motivation for treatment
- Consider future pregnancy
- Consider risk of recurrence / future surgery
- NEVER straightforward



Summary

- Classify – urge vs stress (or mixed) UI
- Always think about how they will empty
- Surgical treatment for SUI in young females should not be undertaken lightly