

# The Mysteries of the Female Pelvic Floor

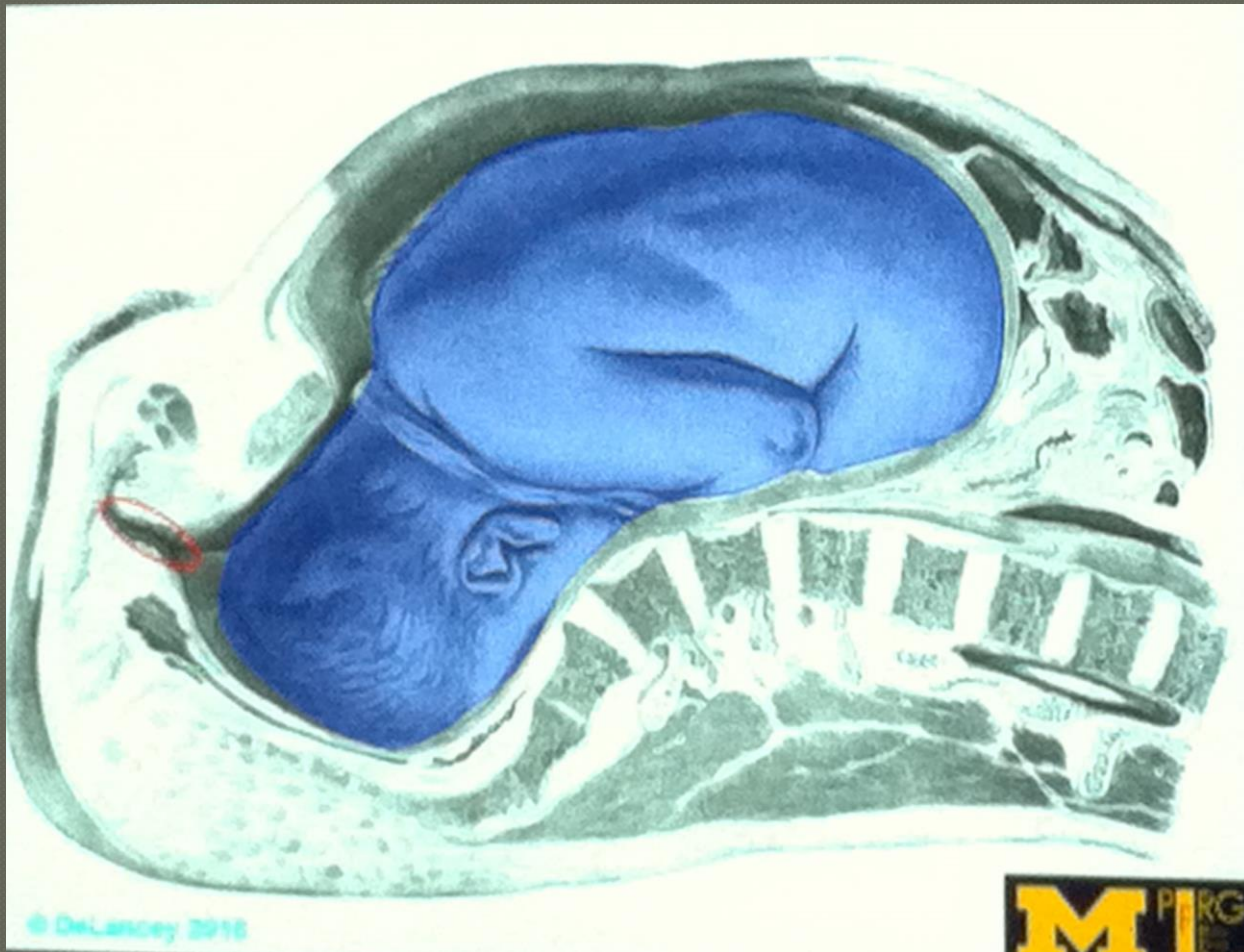
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# Disclosures

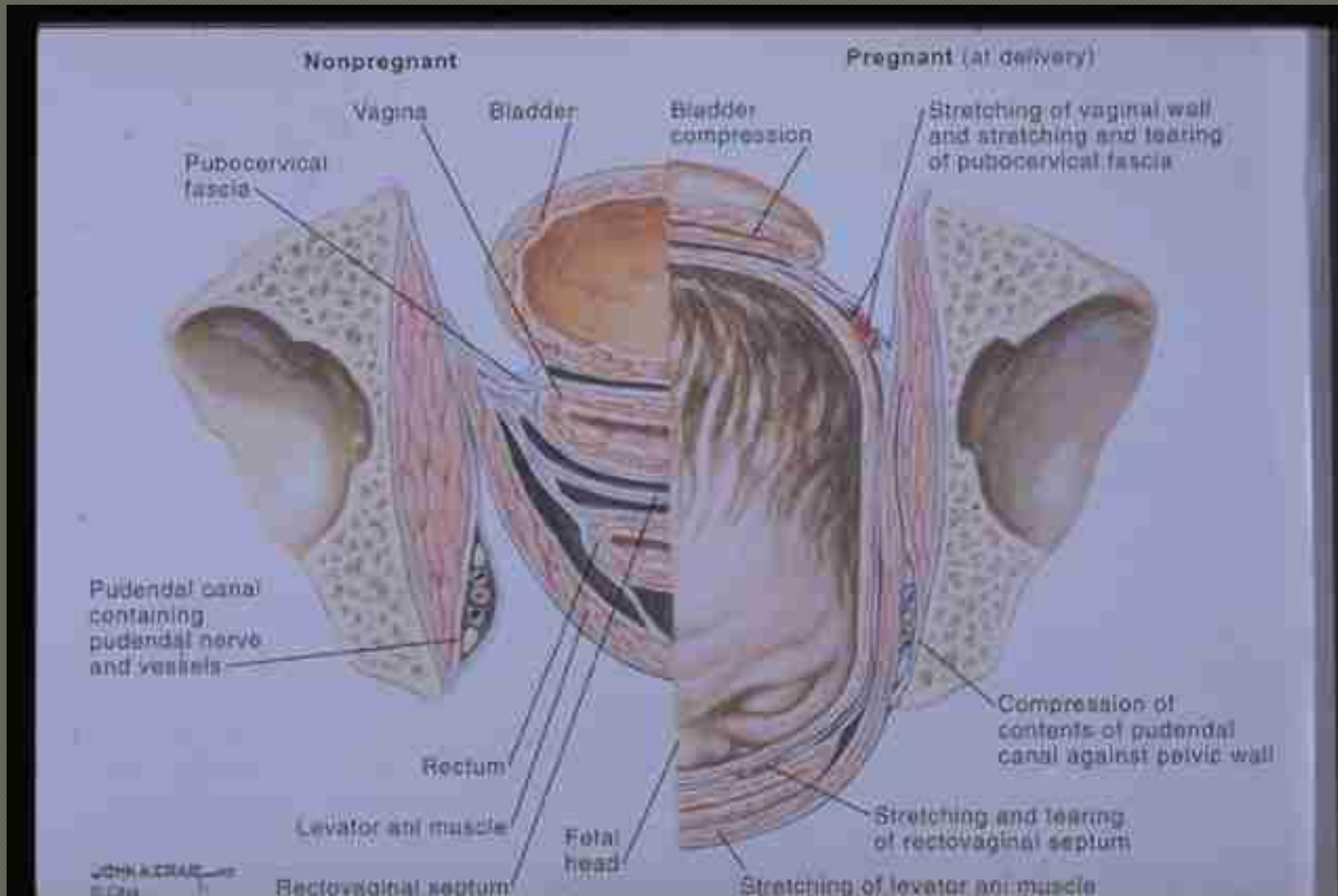
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- Speaker fee and Conference sponsorship- Pfizer, Astella, Pharma
- Research Grant and Conference sponsorship- AMS

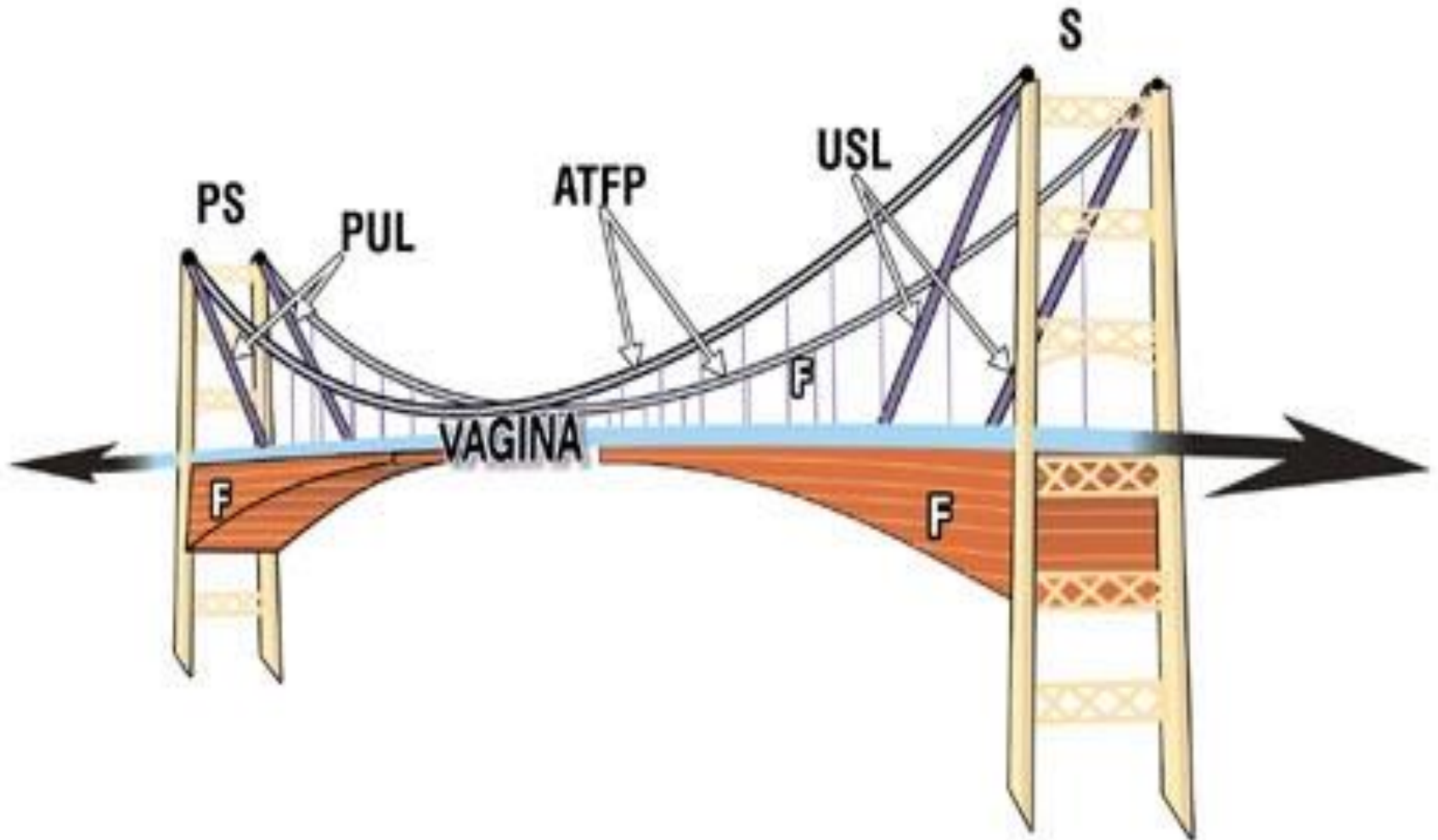
# How do they do it?



# Reality check



# Pelvic Floor bridge



# Pelvic Floor Dysfunction

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## Risk Factors – Women<sup>1</sup>

- Pregnancy
- Delivery parameters
- Mode of delivery
- Age of first delivery
- Body weight/BMI
- Collagen
- Ethnicity
- Menopause
- Previous pelvic surgery/irradiation

BMI = body mass index

1. Milsom I, Altman D, Herbison P, Lapitan MC, Nelson R, Sillén U, Thom D. Epidemiology of urinary (UI) and faecal (FI) Incontinence and pelvic organ prolapse (POP). In: Abrams, Cardozo, Kouhry and Wein. (eds). *Incontinence*. Paris: Health Publications Ltd; 2009: p255-312.

# Epidemiology

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- Olsen et al (1997):
  - North American population
  - Cumulative risk of anti-incontinence and/or prolapse surgery by age 80 years: 11.1%
  - 29% of these operations were for recurrent problems

# Projected Prevalence of Pelvic Floor Disorders in the United States to 2050<sup>1</sup>

Projected Prevalence of Pelvic Floor Disorders in Women, 2010-2050

Projected Number of Women (Millions)

FI = faecal incontinence  
PFD = pelvic floor disorder  
POP = pelvic organ prolapse  
UI = urinary incontinence



# Prevalence of Urinary Incontinence: Influence of Age and Parity<sup>1</sup>

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**Study Conducted Between 1995 and 1997 in  
27,900 Women Aged  $\geq 20$  Years, from Norway**



# Pelvic Organ Prolapse

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- ◉ How does it present
- ◉ Bladder function
- ◉ Bowel function
- ◉ Sexually active/ Vaginal flatus
- ◉ QoL
- ◉ Previous Surgery esp. Pelvic

# Types of Prolapse

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- Apical( Uterine or Vault)
- Anterior (Cystocoele)
- Posterior (Rectocoele/ Enterocoele)
- Introital/ Perineal

# Normal Pelvic Floor

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# Anterior wall prolapse

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# Posterior Vaginal Prolapse

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# Massive enterocoele

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# Perineal hypermobility

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# Staging

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- Simple
- Baden- Walker
- POPQ
- POPQ stage

# MANAGEMENT

# Life style modification

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- \* Important to reduce pressure on pelvic floor
- \* Weight loss
- \* Pelvic mass
- \* Avoid chronic straining:
  - \* Constipation
  - \* Chronic bronchitis
  - \* Heavy lifting
- \* Pelvic floor exercises

# Pessaries

RING PESSARY



SHELF/GELLHORN PESSARY



# Pessary management

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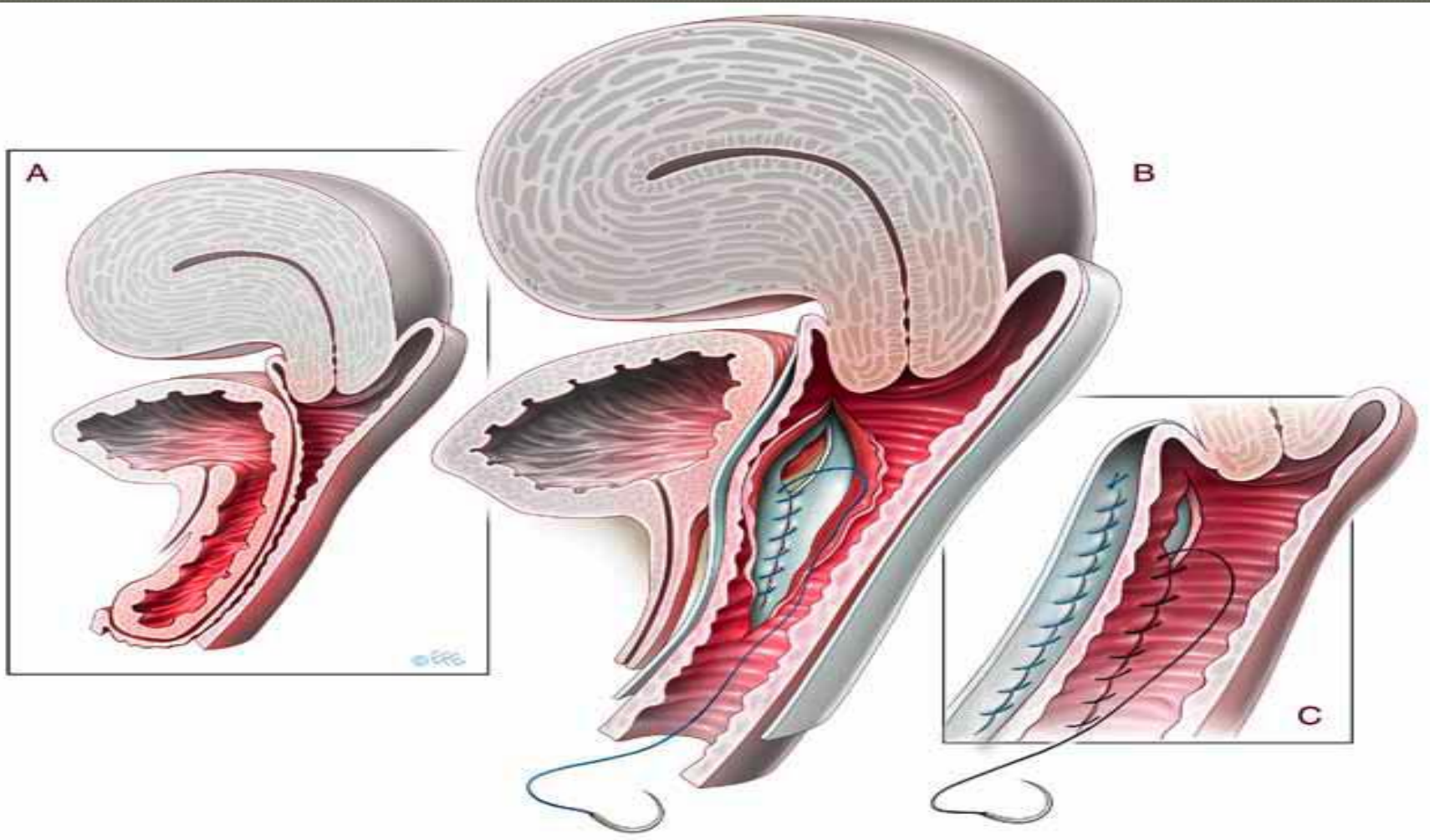
- ◉ Works best for anterior and apical prolapse
- ◉ Should be changed every 3-6 months
- ◉ Use with topical oestrogen
- ◉ Shelf pessaries preclude sexual intercourse

# Surgical treatment

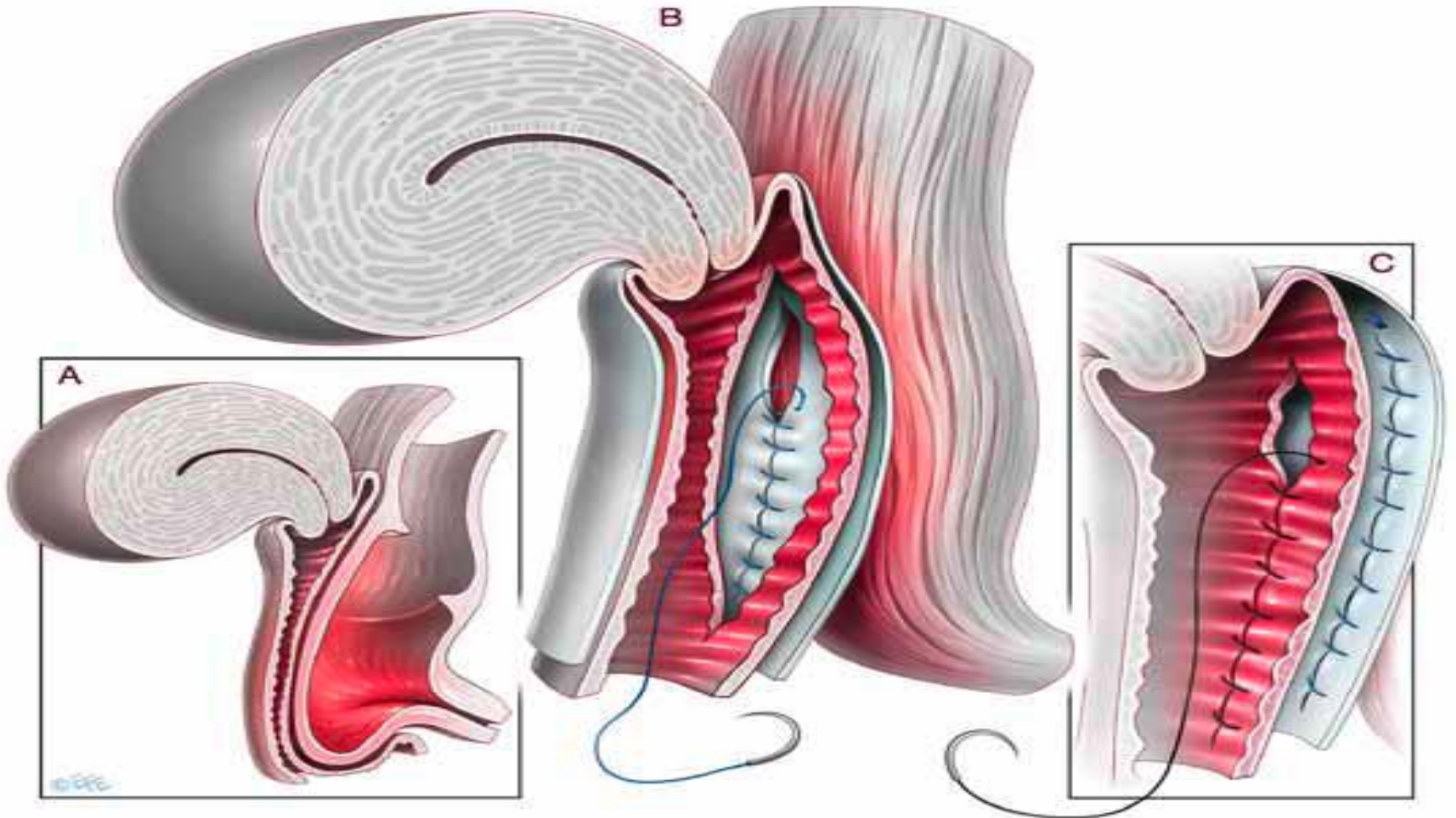
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- Colporrhaphy
- Perineoplasty
- Hysterectomy
- Uterine preservation surgery
- Vault suspension
- Obliterative procedures

# Traditional Anterior Repair



# Posterior Repair





# Urinary Incontinence

- MESA (USA) study 1986:
  - occurs in 37.7% of those >60 yrs who live in community
- Chiarelli (Australia) 1999:
  - 13% of 18-23 y.o. females
  - 35% of 70-75 y.o. females
- EPICONT (Norway) study 2000:
  - Gradual increase in prevalence until age 50 when it plateaus around 30% then rises again after age 70
- Brocklehurst 1993:
  - Up to 60% do not seek help despite being concerned
- Ouslander 1994, Armstrong 2000:
  - Major contributing factor in decision to seek residential care
- Fonda & Victorian Geriatric Peer Review Group 1990, Gardner 1992:
  - Up to 70% nursing home residents in Australia are incontinent



# Patient assessment

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## ○ History

- Main complaint (UI, SI, urgency, freq, nocturia, voiding disorder etc)
- Severity
- Previous conservative measures
- Previous continence surgery

## ○ Examination

- Prolapse, urethral mobility
- Palpable bladder
- Pelvic mass
- Pelvic floor strength
- Neurological exam
- Stress test

# Overactive bladder syndrome

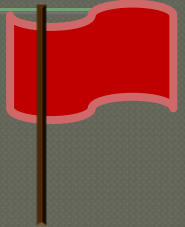
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- Symptoms

- Frequency
- Nocturia
- Urgency
- Urge incontinence

- 2<sup>nd</sup> commonest cause of incontinence in women

# Red flags: NICE criteria for referral to secondary care



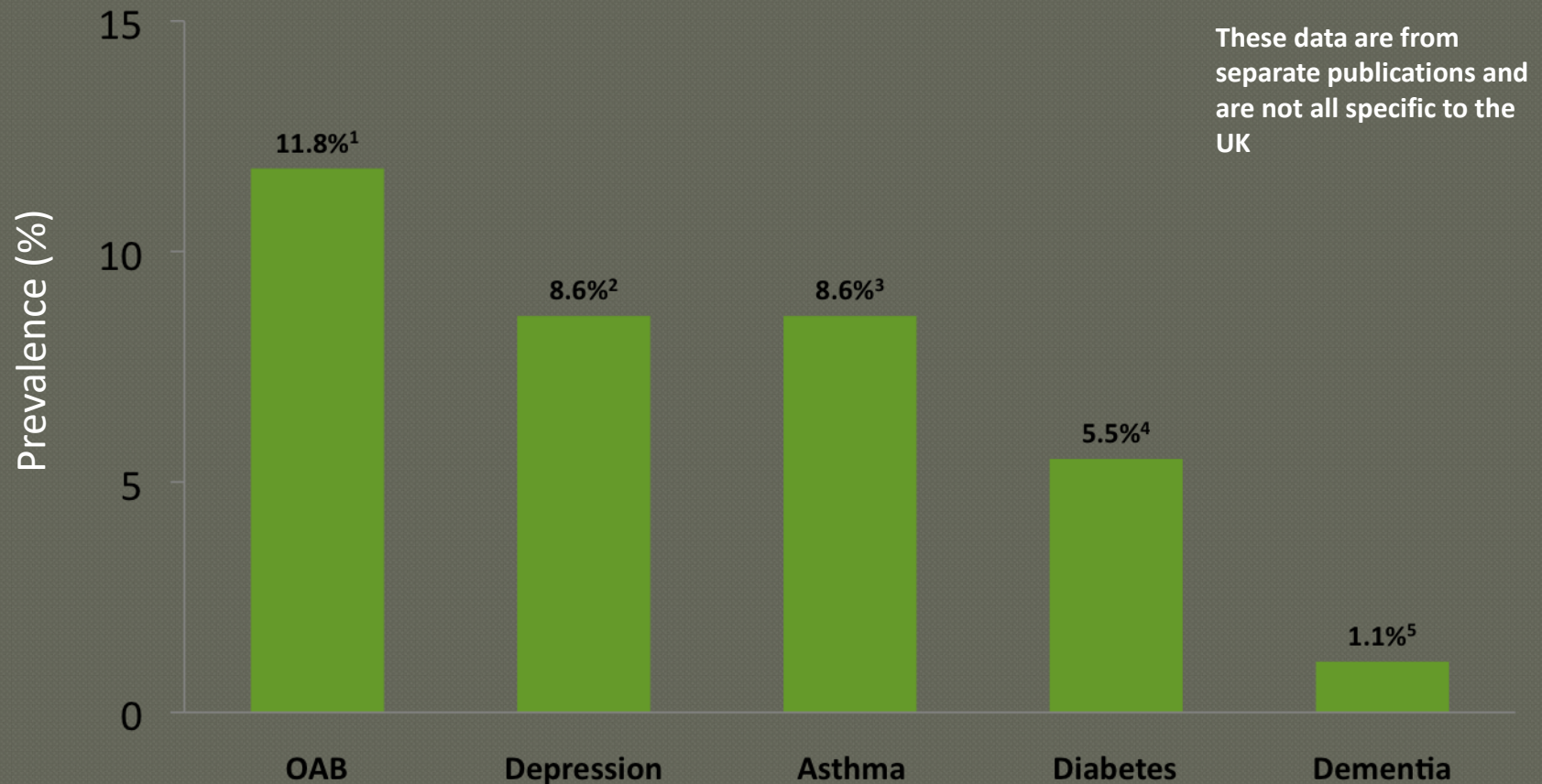
## ● Urgent referral

- Microscopic haematuria in women aged 50 years and older
- Visible haematuria
- Recurrent or persisting UTI associated with haematuria in women aged 40 years and older
- Suspected malignant mass arising from the urinary tract

## ● Indications for referral

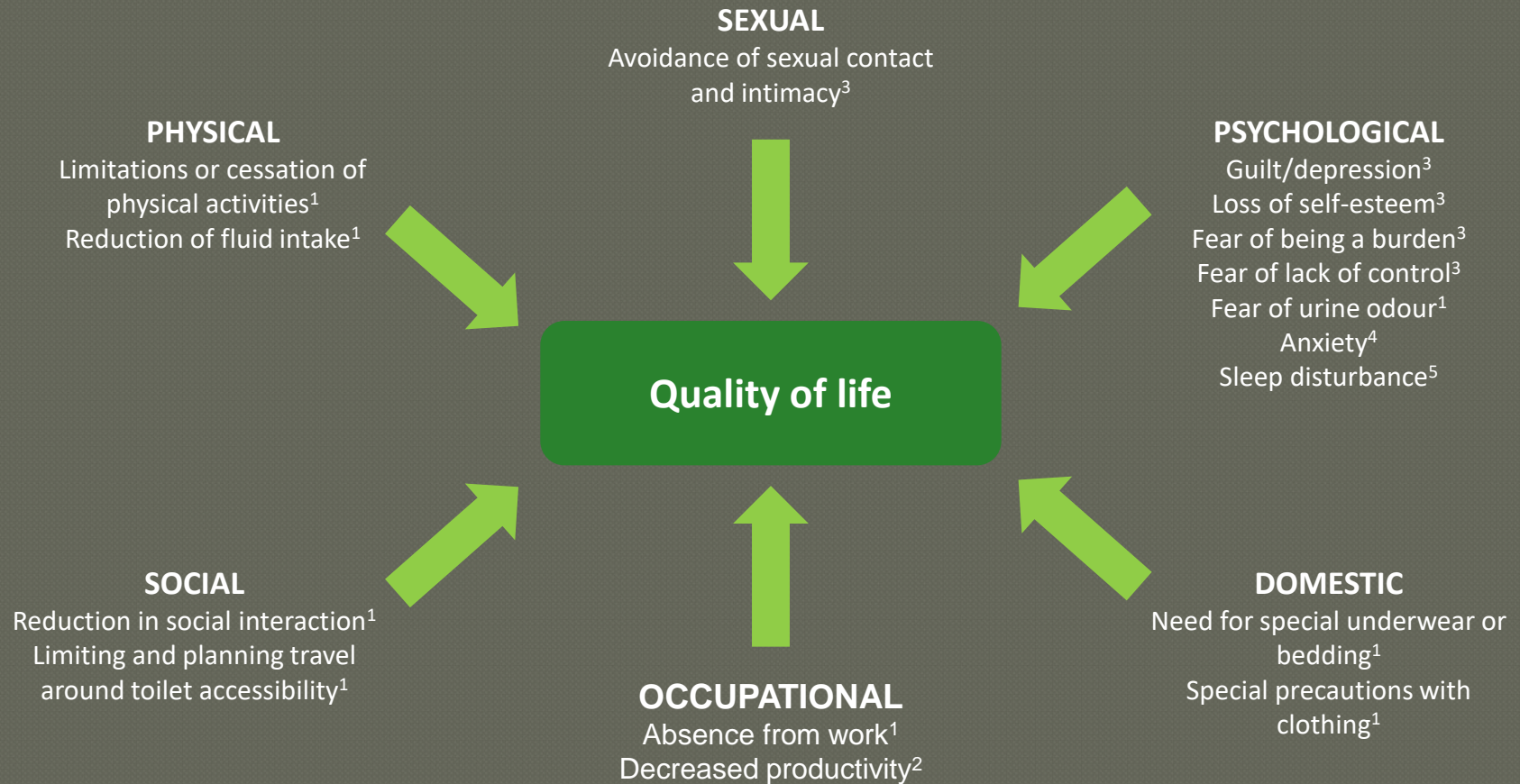
- Symptomatic prolapse that is visible at or below the vaginal introitus
- Palpable bladder on bimanual or abdominal examination after voiding

# The prevalence of OAB is higher than many common conditions



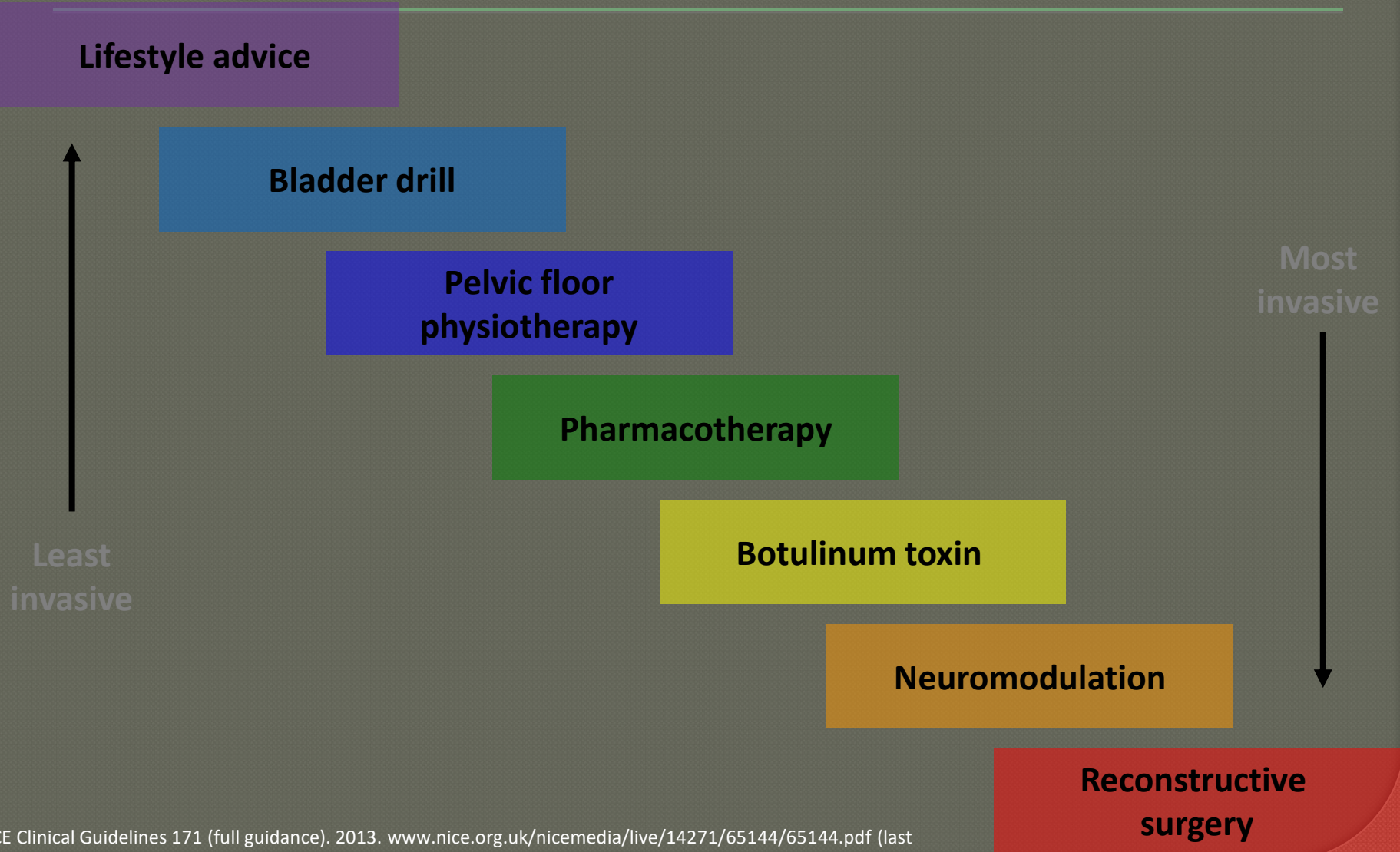
1. Milsom I et al. *Eur Urol* 2007; 6(suppl): 4-9; 2. Kessler RC, et al. *Int J Methods Psychiatr Res* 2012;21:169-84; 3. Eur Resp Soc/Eur Lung Foundation. *European Lung White Book* 2003. Part 2: Major Respiratory Diseases. Chapter 1: Asthma burden; 4. Diabetes UK. *Diabetes in the UK 2011/12*; 5. Alzheimer's Society. *Dementia UK: The Full Report*, 2007.

# OAB can impact many areas of a patient's life



1. Abrams P et al. *Am J Manag Care* 2000; 6: S580–90; 2. Sexton CC et al. *Am J Manag Care* 2009; 15: S98–107;  
3. Tubaro A. *Urology* 2004; 64(suppl 6A): 2–6; 4. Sexton CC et al. *J Am Geriatr Soc* 2011;59(8): 1456–70;  
5. Stewart WF et al. *World J Urol*. 2003; 20: 327–36.

# Spectrum of treatments in OAB



# Conservative Rx

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## ● General measure

- Sensible fluid intake
- Weight loss
- Stop smoking
- Caffeine use
- Mobility aids or downstairs toilets
- Pads & bedpans
- Adjusting medication
- HRT
- Manage chronic cough

## ● Initiate conservative treatment based on symptoms

- Pelvic floor exercises for stress leakage
- Bladder retraining or medication for overactive symptoms



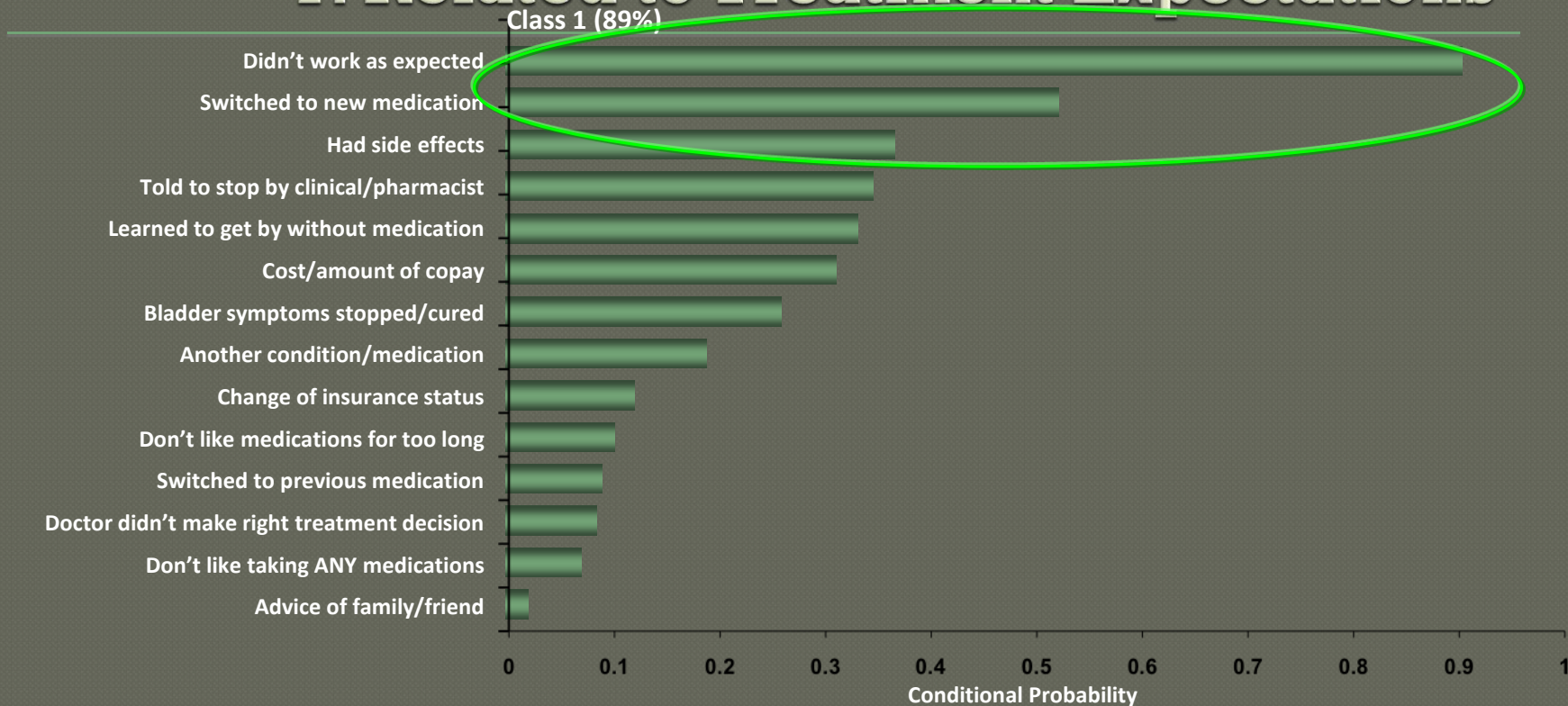
# Anticholinergics

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- Efficacy 50-60%
- Side effects
  - Dry mouth
  - Blurred vision
  - Constipation
  - Drowsiness
  - Tachycardia
- Poor compliance

# Reasons for Discontinuation of OAB Medications - Latent Class Analysis Identifies Two Classes of Patients:

## 1. Related to Treatment Expectations<sup>1</sup>



### Reasons for discontinuation primarily related to treatment expectations or tolerability of medication prescribed for overactive bladder

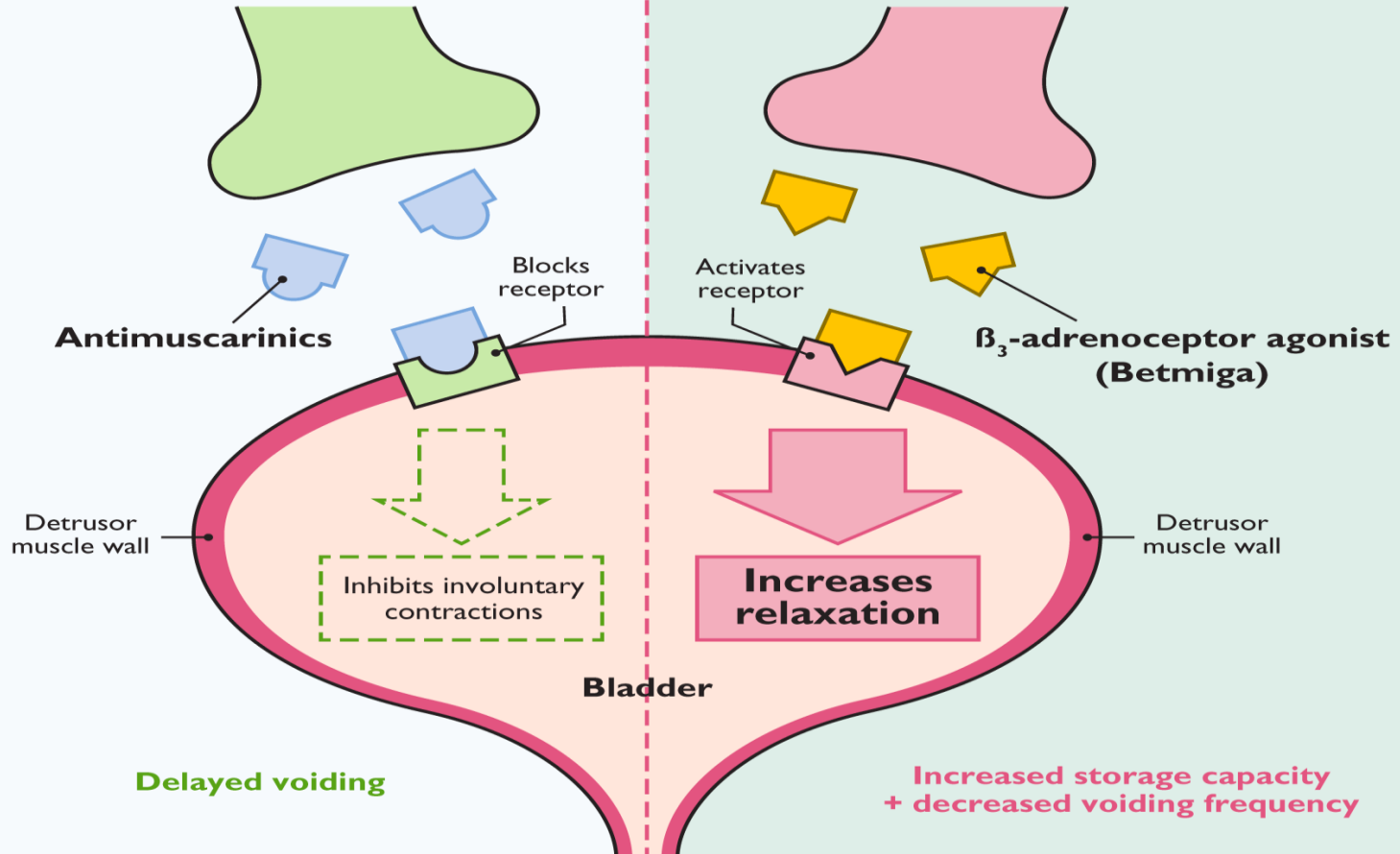
- Healthcare providers may be able to enhance compliance by discussing realistic expectations about treatment efficacy and side effects

Phase 1: n=260 000 USA households to identify patients using antimuscarinic agents for OAB; Phase-2 follow-up survey n=6577 respondents with antimuscarinic prescriptions for OAB. Patients who reported discontinuing one or more OAB medication during the 12 months before phase 2 were grouped by reason, using latent class analysis (LCA);

# Mirabegron is a novel treatment for OAB that works differently to antimuscarinics<sup>1,2</sup>

**PARASYMPATHETIC**  
(Cholinergic control)

**SYMPATHETIC**  
(Adrenergic control)



# Surgery for Urge Incontinence

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- Mainly for refractory cases only
- Intravesical Botox injection
- Sacral Nerve Stimulation
- Clam cystoplasty
- Urinary bypass

# Stress Urinary Incontinence

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- Commonest form of UI
- Associated with cough, sneezing, exercise, laughing etc
- Assess pad usage

# Surgery for SUI

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- After failure of conservative Mx
- Transurethral Bulking
- Colposuspension
- Native Tissue fascial sling
- ?Synthetic mesh slings

# Other SUI devices

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- ◉ Continence Pessaries
- ◉ Tampon

# Practise Your Pelvic Floor Exercises!!

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