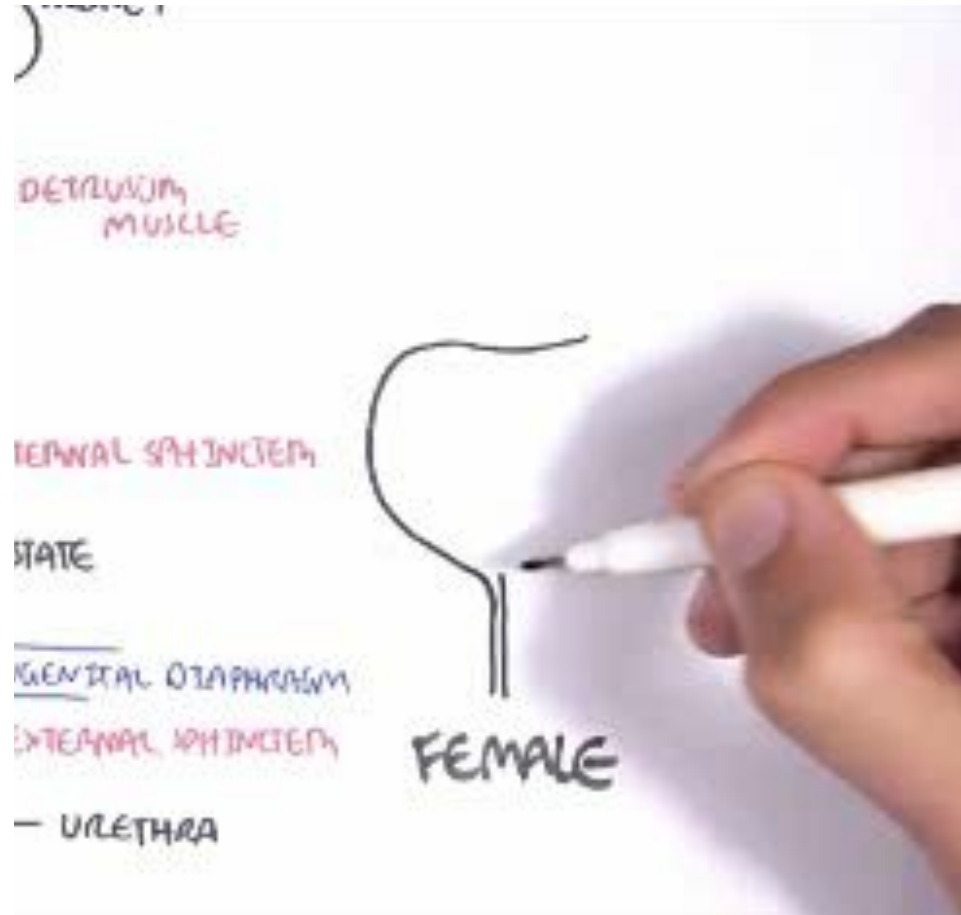




# Эпидемиология и фармакотерапия недержания мочи

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# Анатомия нижних мочевых путей у женщин



# Определения

**Недержание мочи** – это патологическое состояние, характеризующееся любым непроизвольным выделением мочи из уретры.

**Недержание мочи при напряжении (стрессовое)** – жалоба пациента на непроизвольное выделение мочи из уретры при физических усилиях, кашле и чихании.

**Ургентное (императивное) недержание мочи** – жалоба пациента на непроизвольное выделение мочи из уретры при интенсивных повелительных позывах к мочеиспусканию.

# Эпидемиология НМ

- **Стрессовое НМ** - от 34 до 38% женщин Северной Америки и стран Европы, **ургентное НМ** - до 14% женщин<sup>1</sup>
- В развитых странах число обращающихся к специалисту пациенток составляет около 30%, а в России – не более 10%<sup>2</sup>

1. Hunskaar S, Lose G, Sykes D, Voss S. The prevalence of urinary incontinence in women in four European countries. BJU Int. - Feb 2004. - 93(3):324-3.

2. Клинические рекомендации Российского общества урологов под редакцией Аляева, – М - 2017г.

# Факторы риска

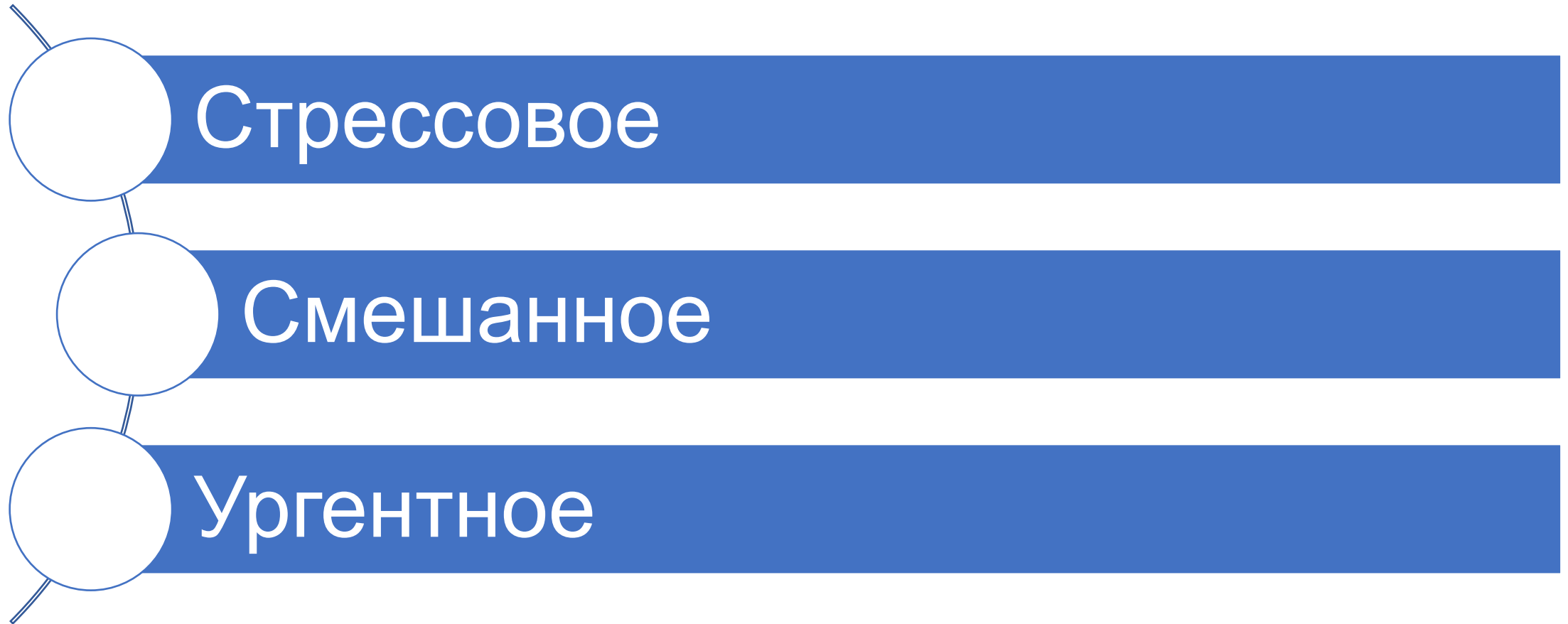
## *Predisposing factors*

- Gender (♀ > ♂).
- Race (Caucasian > Afro-Caribbean).
- Genetic predisposition.
- Neurological disorders [SCI, stroke, MS, Parkinson's disease (PD)].
- Anatomical disorders (VVF, ectopic ureter in girls, urethral diverticulum, urethral fistula, bladder exstrophy, epispadias)
- Childbirth (assisted vaginal delivery, increasing parity) and pregnancy.
- Anomalies in collagen subtype.
- Pelvic, perineal, and prostate surgery (radical hysterectomy, prostatectomy, TURP), leading to pelvic muscle and nerve injury.
- Radical pelvic radiotherapy.
- Diabetes.

## *Promoting factors*

- Smoking (causing chronic cough and raised intra-abdominal pressure).
- Obesity.
- Infection (UTI).
- ↑ fluid intake.
- Medications (i.e. α-blockers in women).
- Poor nutrition.
- Ageing.
- Cognitive deficits.
- Poor mobility.
- Oestrogen deficiency.

# Наиболее часто встречающиеся виды НМ



# Редко встречающиеся виды НМ

Энурез

Ситуационное недержание

Парадоксальная ишурия



## Classification

- **Stress urinary incontinence (SUI):** involuntary urinary leakage on effort, exertion, sneezing, or coughing.<sup>1</sup> It is due to hypermobility of the bladder base or pelvic floor and/or intrinsic urethral sphincter deficiency. When confirmed on urodynamic testing, it is termed urodynamic stress incontinence. It was further categorized in women by Blaivas<sup>4</sup> (using videourodynamics) into:
  - **Type 0:** report of UI, but without clinical signs.
  - **Type I:** leakage that occurs during stress with <2cm descent of the bladder base below the inferior margin of the symphysis pubis.
  - **Type II:** leakage on stress accompanied by marked bladder base descent (>2cm) that occurs only during stress (IIa) or is permanently present (IIb).
  - **Type III:** bladder neck and proximal urethra are already open at rest (with or without descent), which is also known as intrinsic sphincter deficiency (ISD).
- **Urge urinary incontinence (UUI):** involuntary urine leakage accompanied or immediately preceded by urgency (a sudden, strong desire to void).<sup>1</sup> It is due to an overactive detrusor muscle. The urodynamic diagnosis is termed 'detrusor overactivity incontinence'. It is a component of the OAB syndrome (see ↻ pp. 162–4).
- **Mixed urinary incontinence (MUI):** involuntary leakage associated with urgency and also with exertion, effort, sneezing, or coughing.<sup>1</sup> It contains symptoms of both SUI and UUI.
- **Overflow incontinence:** leakage of urine when the bladder is abnormally distended with large residual volumes.
- **Nocturnal enuresis:** the complaint of loss of urine occurring during sleep.<sup>1</sup> The prevalence in adults is about 0.5%,<sup>5</sup> and 7–10% in children aged 7y.<sup>6</sup> Nocturnal enuresis can be further classified into primary types (never been dry for longer than a 6-month period) or secondary (the re-emergence of bedwetting after a period of being dry for at least 6–12 months; see ↻ pp. 724–6). In an adult ♂, nocturnal incontinence may be an indicator of HPCR (see ↻ pp. 122–3).
- **Post-micturition dribble:** involuntary loss of urine immediately after the individual has finished passing urine, usually after leaving the toilet in men or after rising from the toilet in women.<sup>1</sup> In men, it is due to pooling of urine in the bulbar urethra after voiding.
- **Continuous incontinence:** the complaint of continuous involuntary loss of urine.<sup>7</sup> This is experienced with a vesicovaginal fistula.
- **Insensible incontinence:** the complaint of UI where the women has been unaware of how it occurred.<sup>7</sup>
- **Coital incontinence:** the complaint of involuntary loss of urine with coitus.<sup>7</sup>



# Ситуационное недержание мочи

- жалоба пациента на непроизвольное выделение мочи из уретры при различных обстоятельствах, например, при половом акте, смехе и т.д.
- как правило, с детства
- отсутствие остаточной мочи при УЗИ

# Coital Incontinence in Women With Urinary Incontinence: An International Study

Ester Illiano <sup>1</sup>, Wally Mahfouz <sup>2</sup>, Konstantinos Giannitsas <sup>3</sup>, Ervin Kocjancic <sup>4</sup>, Bini Vittorio <sup>5</sup>, Anastasios Athanasopoulos <sup>3</sup>, Raffaele Balsamo <sup>6</sup>, Franca Natale <sup>7</sup>, Antonio Carbone <sup>8</sup>, Donata Villari <sup>9</sup>, Maria Teresa Filocamo <sup>10</sup>, Enrico Finazzi Agrò <sup>11</sup>, Elisabetta Costantini <sup>12</sup>

**Results:** In this study 1,041 women (age 52.4 ± 10.7 years) were included. In all, 53.8% of women had CUI: 8% at penetration, 35% during intercourse, 9% at orgasm, and 48% during a combination of these. Women with CUI at penetration had a higher prevalence of SUI, women with CUI during intercourse had higher prevalence of MUI with predominant SUI, and women with CUI at orgasm had higher prevalence of UUI and MUI with predominant UUI component. Previous hysterectomy was a risk factor for CUI during any phase, while cesarean delivery was a protective factor. Previous failed anti-UI surgery was a risk factor for CUI during penetration and intercourse, and body mass index >25 kg/m<sup>2</sup> was a risk factor for CUI at intercourse. According to International Consultation on Incontinence questionnaire scores, increased severity of UI positively correlated with CUI, and had a negative impact on the quality and frequency of sexual activity.

# Консервативное лечение

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graph TD; A[Консервативное лечение] --- B[Изменение образа жизни]; A --- C[Тренировка мочевого пузыря]; A --- D[Методика БОС]; A --- E[Электромагнитная стимуляция]; A --- F[Абсорбирующие средства]; A --- G[Пессарии];
```

Изменение  
образа  
жизни

Тренировка  
мочевого  
пузыря

Методика  
БОС

Электро-  
магнитная  
стимуляция

Абсорбирую-  
щие  
средства

Пессарии

# Медикаментозное лечение

Антимускариновые препараты



Селективные агонисты бета-3-адренорецепторов



Ботулотоксин тип А



# Антимускариновые препараты

- Oxybutynin (Дриптан)
  - Oxybutynin transdermal (Окситрол)
  - Tolterodine (Детрузитол)
  - Solifenacin (Везикар)
  - Trospium chloride (Спазмекс)
  - Darifenacin (Энаблекс)
- Разная селективность
  - Первый эффект не ранее 2 недель приема
  - Курс не менее 3 месяцев

# Solifenacin (Везикар)

- 5 – 10 мг однократно
- Высокоселективный препарат
- Побочные действия (сухость, запоры) – редко



# Trospium Chloride (Спазмекс)

- 5 и 15 мг 2-3 раза в день
- Теоритически должен сложнее проходить гематоэнцефальный барьер и вызывать меньше побочных эффектов
- Не метаболизируется печенью
- 60% выводится с мочей в неизмененном виде

# Мирабегрон

- по 50 мг 1 раз в сутки
- улучшает резервуарную функцию мочевого пузыря за счет стимуляции бета3-адренорецепторов, расположенных в его стенке.
- рекомендуется для купирования явлений НМ пациентам с ургентным НМ как в качестве первичного метода лечения, так и при недостаточной эффективности М-холиноблокаторов, и при отсутствии неконтролируемой артериальной гипертензии.

Epub 2016 Mar 8.

# Efficacy and Safety of Mirabegron Add-on Therapy to Solifenacin in Incontinent Overactive Bladder Patients with an Inadequate Response to Initial 4-Week Solifenacin Monotherapy: A Randomised Double-blind Multicentre Phase 3B Study (BESIDE)

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Javier Cambroner<sup>5</sup>, David Mitcheson<sup>6</sup>, Sender Herschorn<sup>7</sup>, Tahir Saleem<sup>8</sup>, Moses Huang<sup>8</sup>,  
Emad Siddiqui<sup>8</sup>, Matthias Stölzel<sup>9</sup>, Claire Herholdt<sup>8</sup>, Scott MacDiarmid<sup>10</sup>,  
BESIDE study investigators

**Results and limitations:** A total of 2174 patients were randomised to combination (n=727), solifenacin 5mg (n=728), or solifenacin 10mg (n=719). At EOT, combination was superior to solifenacin 5mg, with significant improvements in daily incontinence (p=0.001), daily micturitions (p<0.001), and incontinence noted in a 3-d diary (p=0.014). Combination was noninferior to solifenacin 10mg for key secondary end points and superior to solifenacin 10mg for improving daily micturitions. All treatments were well tolerated.

**Conclusions:** Adding mirabegron 50mg to solifenacin 5mg further improved OAB symptoms versus solifenacin 5 or 10mg, and it was well tolerated in OAB patients remaining incontinent after initial solifenacin 5mg.

# Ботулотоксин тип А

- Внутрипузырное введение
- Длительность действия не более 5-6 месяцев
- Побочные эффекты (увеличение объёма остаточной мочи)

МГМСУ

Спасибо за  
внимание!