

# EU-Ukraine Webinar Series on Spinal Dysraphisms



## Questions

### Session 4: Neurogenic bladder classification, pathophysiology, & diagnosis

Responses by

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# Session 4 Q&A / Сесія 4 Питання та відповіді

## 1. How do you code a neurogenic bladder according to the ICD?

We have a specific ICD-9 code for neurogenic bladder:

- neurogenic bladder 596.54

And other codes for specific conditions:

- bladder paralysis 596.53
- hypertonicity of bladder 596.51
- atonic bladder 596.4
- low bladder compliance 596.52
- incomplete bladder emptying 788.21
- incontinence 788.30

There is no current Orphacode for classifying neurogenic bladder.

This should not be confused with two codes for non-neurogenic bladder conditions (84085: Hinman syndrome & 2704: Ochoa syndrome)

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## 2. How is a neurogenic bladder classified if it is impossible to conduct urodynamics?

- When urodynamics or videourodynamics is not available, the diagnosis of neurogenic bladder and its classification is related to :
  1. clinical signs (the type of urinary incontinence – urgency, frequency, retention), and diaries and questionnaires are useful for understanding what you are going to observe, as well as helping patients and families to define the pattern of the bladder
  2. micturition observation
  3. Abdominal UltraSound: hydronephrosis, post void residual, bladder wall thickness
  4. VCUG: reflux, bladder profile, bladder neck profile
- Furthermore, consider the type and site of spinal lesion (suprapontine, subpontine-supraspinal, etc.)

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## 3. What is the correct diagnosis in urinary disorders in patients with spinal cord injury?

- In spinal cord injury, it is most common to observe neurogenic detrusor overactivity and detrusor sphincter dyssynergia
- In SCI you can observe a higher lesion (cervical, thoracic), compared to lower lesions in spina bifida or spinal dysraphism
- If the lesion is above T6 there is a risk for autonomic dysreflexia, with risk of cardiovascular complication during bladder filling

## 4. How long after the start of conservative treatment should a urodynamic examination be performed to assess its effectiveness?

- First of all, consider EAU guidelines:
  - In the paediatric urology guidelines, there is a very complete timetable for when to perform urodynamic evaluation
  - Now, thanks to the work of Prof. Nijman and the working group, we will have guidelines for spina bifida and a more precise timetable
- Normally, in order to observe treatment effectiveness, 3 months could be enough.

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5. Is it possible to prescribe Oxybutynin before conducting a urodynamic examination, if there is a lesion of the upper urinary tract with a neurogenic bladder present??

- It is related to the aim of UD evaluation:
  - If you need to confirm the effectiveness of the treatment you cannot stop oxybutynin
  - Otherwise, in order to observe a native urodynamic pattern, it is better to stop 2-3 days before the UDS

## 6. Mitrofanoff indications

Indications for Mitrofanoff are mainly related to:

- Privacy and independence , especially in female paraplegic patient, in order to facilitate CIC
- Wheelchair-bound patients
- Sensitive urethra (could be the case in patient with tethered cord only)
- Urethral stricture

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7. In your opinion, can an alternative to CIC be found in the future and are there known works in this direction?
- We know that some results are coming from [reinnervation is theia] procedure but there actually is no demonstration that there is effectiveness in the long term. So, this is totally experimental, and you can't recommend this for your patients.
  - Another solution maybe, in the future, could be for sacral neuromodulation, but again we have very few data, and, from personal experience, we can say that spina bifida patients are not the best candidates for this kind of treatment.
  - So, at the moment, the answer is that we don't have an effective alternative to clean intermittent catheterization.
8. Could you please suggest the important papers comparing early vs. later CIC in spina bifida? And you opinion as to whether evidence is adequate on this topic?
- You can find different papers in European guidelines and, in my opinion, one of the best is a paper by one colleague from The Netherlands, Pieter Dik, who in 2006 published a paper in European Urology entitled 'Early Start to Therapy Preserves Kidney Function in Spina Bifida Patients', and so my suggestion is to read this as it is very useful and very interesting.
  - [https://www.europeanurology.com/article/S0302-2838\(06\)00006-6/pdf](https://www.europeanurology.com/article/S0302-2838(06)00006-6/pdf)