

# EU-Ukraine Webinar Series on Spinal Dysraphisms



## Questions

### Session 6: Urodynamics

Responses by

**Prof. Giovanni Montini,  
Prof. Raimund Stein, &  
Dr. Giovanni Mosiello**



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*Urogenital Diseases*



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# Session 6 Q&A / Сесія 6 Питання та відповіді

1. The role of bacteriophages and vaccines in the treatment and prevention of urinary tract infections?
  - Bacteriophages and Vaccines are potentially an alternative for the treatment of bacterial infections, but their use is still experimental.
  - Only a validated study has been held in adults but not in pediatric population.
2. Bladder instillation - "for" and "against"?
  - In those with recurrent UTI, intravesical instillation of gentamycin or neomycin/polymyxin may be an option.
  - It is an alternative for prophylaxis or when all other systemic treatments have failed, even if it is still an off-label therapy.

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## 3. *Fighting against antibiotic-resistant bacteria?*

- Antimicrobial resistance is primarily caused by antibiotic overuse and misuse, which results in a decline in the ability of antibiotics to treat infections. .
- Higher prevalence of UTI causative agents other than E. coli in children with neurogenic bladder, should be taken in account during initial therapy choice
- UTIs are common but difficult to treat, because are frequently caused by multidrug-resistant bacteria.
- The real usefulness of antibiotic treatment must be carefully considered in this population, in order to avoid misuse.
- Positive urine culture cannot be utilised as a solitary measure for the diagnosis of UTI due to the high incidence of asymptomatic bacteriuria in children with neurogenic bladder on CIC.

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## 4. Leukocyturia without fever – to treat or not ?

- No treatment is required.
- Different situation when leukocyturia is associated with fever.
- A combination of symptoms and laboratory measures is recommended for the diagnosis of UTI.
- This combination includes: **≥2 symptoms** (fever  $\geq 38^{\circ}\text{C}$ , abdominal pain, new back pain, new or worse incontinence, pain with catheterization or urination, or malodorous/cloudy urine) and  $\geq 100\,000$  CFU/mL of a single organism and  $\geq 10$  WBC/HPF on urine microscopy or equivalent method.

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5. What antibiotic do you prefer to prevent urinary tract infection in children with VUR?  
Has COVID-19 affected urinary tract infections in children?

- There are no advantages in using antibiotic prophylaxis in children with neurogenic bladder who are on CIC.
- Because continuous antibiotic prophylaxis (CAP) creates more bacterial resistance.
- A Cochrane review supports the use of cranberry products to reduce the risk of symptomatic UTIs .
- Prophylaxis is recommended only in selected cases, hereby phosphomicine and nitrofurantoin are useful .
- Bowel management is useful too.

No evidence related to COVID 19 has been reported.

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6. When they recommend doing the renal scintigraphy. Nephrologists generally want to wait a little more than 3 months to see the real scar, but urologists do not.
  - There is a general agreement to wait at minimum 3 months in order to be sure to detect scars, sometimes better 6 months.
  
7. Do you consider circumcision in young male infant to prevent UTI? If so, up to what age?
  - In some cases, circumcision could be useful in order to facilitate CIC, and there is evidence about reduced UTI.

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8. Re: reimplantation - Cohen produces very good resolution of reflux. But adult urologists find it a hinderance for subsequent endourological procedures. What has been your experience with your adult colleagues? Do they favour lich gregoir?
- The concern with Cohen procedure could be only related to difficulties to create a valid tunnel when there is a very trabeculated bladder; here, the lich gregoir technique could be an advantage.
  - Limits for endourological procedure no longer have to be considered, thanks to flexible endoscope.
9. After bladder augmentation, do you stop the anticholinergic therapy?
- Bladder augmentation must increase capacity and reduce detrusor pressure,
  - UD will confirm this , and then anticholinergics theoretically are not more required.
  - In some cases, in long-term management, positive experiences with onabotulinum toxin A use on native bladder have been reported, according to UD

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10. What percentage of patients experience regression or reduction in the degree of vesicoureteral reflux with adequate conservative therapy and intermittent catheterization?
- Reducing bladder pressure, increasing bladder capacity and improving bladder emptying is common to observe reducing or regression of VUR as UTI.
  - Important to consider is a secondary reflux that could relapse after bladder neck surgery performed for ameliorating continence
11. What medications are used to treat UTI caused by resistant bacteria?
- The choice of antibiotic should be based on local antimicrobial sensitivity patterns, and should later be adjusted according to sensitivity-testing of the isolated uropathogen.