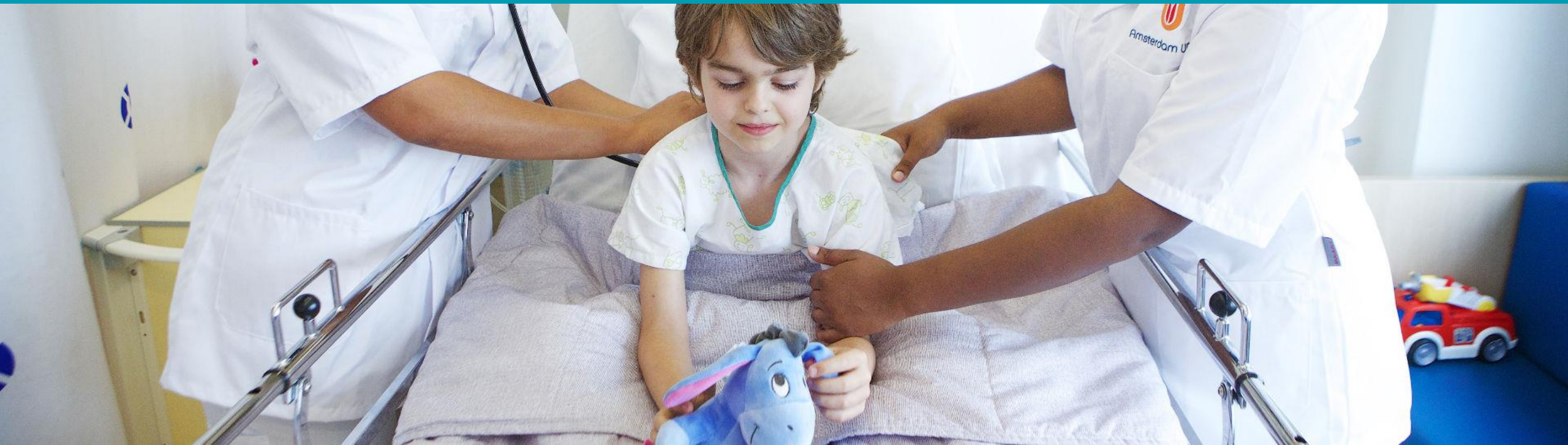




Emma Children's Hospital
Amsterdam UMC

Urodynamics after urotherapy

Saskia Bruijn, Emma Children's Hospital





Disclosures

I have no disclosures



Indications for urodynamics after urotherapy

- No effect of urotherapy
- Medication: indicated / well adjusted



Support and guidance during urodynamics

- Estimate in advance whether it is feasible
- Skills for comfort
- Play therapist
- VR glasses
- Nitrous oxide



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Patients' experiences

What do you dread the most?

Children:

- Catheter
- Annoying to have another hospital visit / medical exam

Parents

- Child's discomfort
- Results of the urodynamic study and the consequences



Patients' experiences

What was, in your experience, the most unpleasant part of the urodynamic study?

Children:

- Bladder catheter
- Plaster pulled a little

Parents

- Child's discomfort





Patients' experiences

Better than expected

What helped?

- Pleasant guidance
- Distraction
- Play therapist



Paul

2018 (8 years old) first review @local hospital

- Incontinence 7/7 days, 1-3 times a day wet, voiding frequency 6-10 times a day, voiding volumes 40-130 ml, fluid intake max 1 L, urgency, rushed voiding.
- Parents send him to toilet, uses alarm watch.
- Faecal incontinence 1/14 days, postponement of defaecation
- Uroflowmetry: volumes 60-84ml, Qmax 9-14ml/sec, PVR 4-12ml
- Had already visited physiotherapist and orthopedagogue

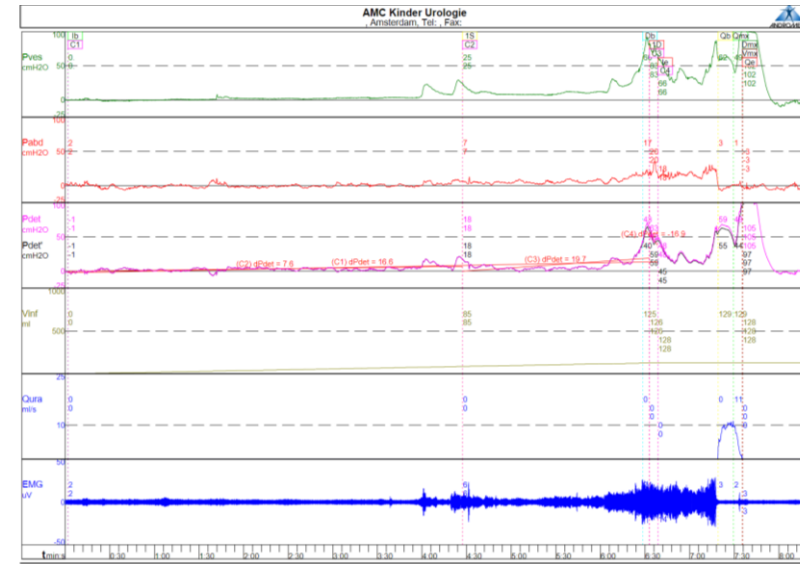


Paul

2019 referred to Emma Children's Hospital
Urodynamic study:

- Small bladder capacity
- Detrusor overactivity resulting in leakage
- Qmax 7,5-10 ml/s, PQmax 40-67cmH₂O

Cystoscopy: 2 urethral valves





Paul

2020

Delay due to COVID pandemic

Started oxybutynine and bladder capacity training during first lockdown

- Urotherapy
- Incontinence 6/7 days, enuresis 7/7
- Voiding frequency 8 times a day, MVV 230ml, fluid intake 1-1,3L
- Diagnosed with ADHD
- Outpatient bladder training: no result
- Switch oxybutynine to solifenacine



Paul

2021

First 2 months with solifenacine almost no incontinence and then a relapse

- Incontinence 5/7 days
- Enuresis 2/7
- Voiding frequency 6-8 times a day, MVV 250ml

Referred to Wilhelmina Children's Hospital for clinical bladder training. After training incontinence persisted: 2/7 days, usually while gaming, no enuresis



Paul

2022

- Incontinence 7/7 days
- Enuresis : relapse after stopped using bedwetting alarm
- Voiding frequency 5-6 times a day
- Fluid intake 1-1,2L
- MVV 300ml
- Solifenacine, mirabegron

One incidence of incontinence during summer holidays (parents had stopped mirabegron before summer)



Paul

2023

- Incontinence 7/7 days 2-3 times a day
- Enuresis 1/14 nights
- Suboptimal voiding frequency and fluid intake
- Holidays almost no incontinence
- Persistence of urgency / overactive bladder unclear

Refused urodynamic study



Paul

2024

Wilhelmina Children's hospital:

Sense u training: aborted, no result

Urodynamic study: detrusor overactivity without leakage

Botulinum Toxin A



Paul

2025 (15 years)

Relapse 3 months after Botulinum



Non-invasive urodynamics

Uroflow with EMG

Diagnostic

- Repeated large PVR
- Dysfunctional voiding / pelvic floor hypertonia
- Invasive urodynamics not feasible

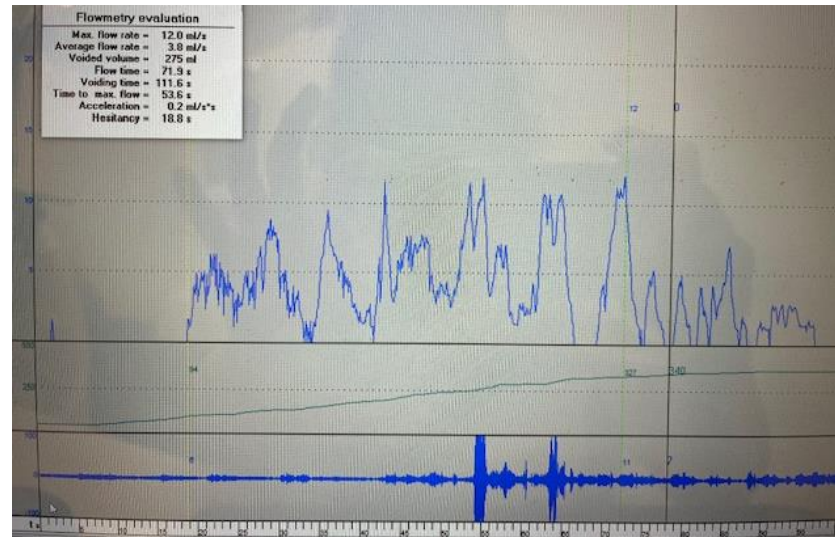
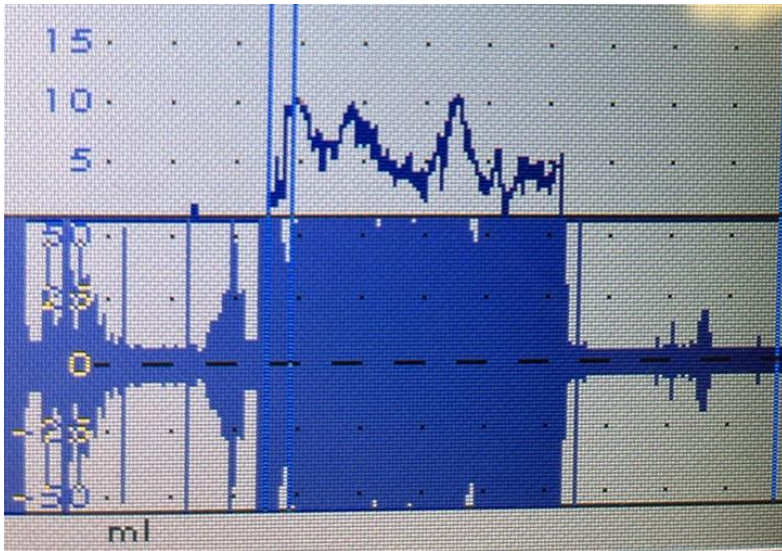
Therapeutic

- Myofeedback



Advantage diagnostic

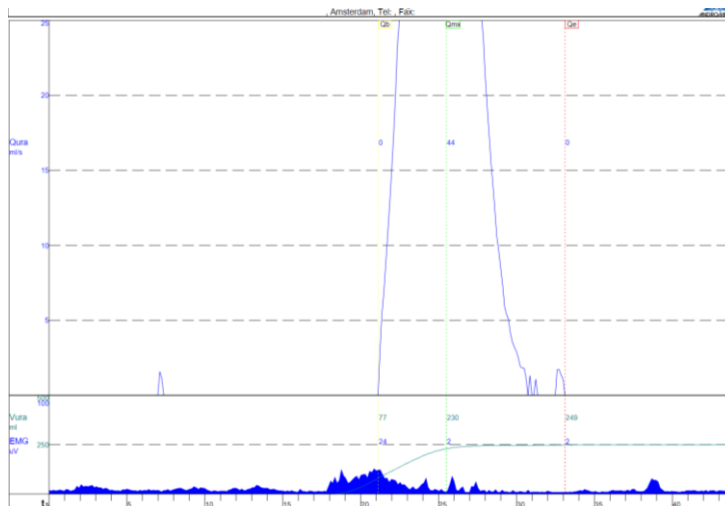
- Less invasive
- flow pattern doesn't always say it all:



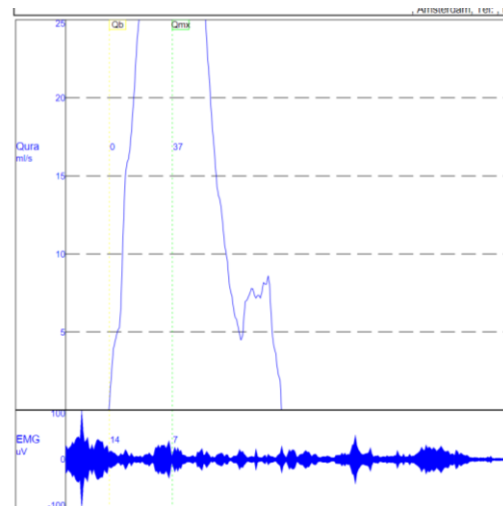


Advantage therapeutic

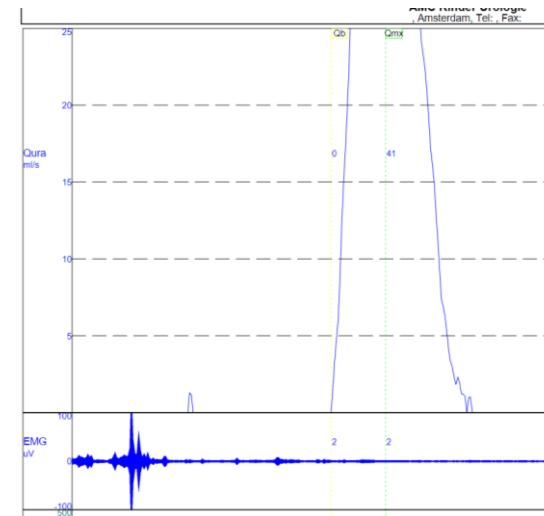
Flow 1:



Flow 2:



Flow 3:





Questions?





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