

Concord Urodynamics and Pelvic Floor Ultrasound Course

Saturday 24th and Sunday 25th August 2024

Concord Repatriation General Hospital, Sydney, NSW, Australia

Faculty:

Prof Lewis Chan FRACS, DDU (Chair)- Urologist, Concord Hospital
A/Prof Vincent Tse MS FRACS – Urologist, Concord Hospital
Dr Tom Jarvis FRACS- Urologist, Prince of Wales Hospital
Dr Jennifer King OAM FRANZCOG CU- Urogynaecologist, Westmead Hospital
Dr Stephanie The DDU FRANZCOG COGU- Gynaecologist, Westmead Hospital
Dr Audrey Wang FRACS – Urologist, Westmead Hospital
Ms Karina So RN NP – Urology Nurse Practitioner

Course Description:

The Urodynamics Course provides a 2-day structured program in practical urodynamics for clinicians who are starting to perform urodynamics or wish to have an in-depth refresher course about urodynamics. The course comprises a number of modules with lectures, panel discussion and practical hands-on workshop components for clinicians to familiarise themselves with urodynamics setup and equipment. There are 2 Advanced modules on ultrasound hands-on training and advanced interpretation/management of complex cases for medical practitioners.

Participants will be stratified into small groups based on prior experience for the hands-on stations to maximise learning opportunities and Q&A with faculty.

Participant numbers are strictly limited and expressions of interest should be directed to Jean Mah-Collins, Director, Concord Institute of Academic Surgery (02)97679992 Jean.mahcollins@health.nsw.gov.au or Lewis Chan, Head of Urology, Concord Hospital (02)97676292 Lewis.chan@health.nsw.gov.au

Learning Objectives

1. To acquire knowledge of the principles, indications and interpretation of urodynamic studies
2. To conduct Urodynamic studies according to ICS Good Urodynamic Practice
3. Be able to recognize artifacts and interpret urodynamic tracings for a variety of voiding dysfunctions
4. To be able to use ultrasound as an imaging modality for urodynamics

Course Program

Day 1 Medical Education Centre, Concord Clinical School (Saturday)

Module 1 - Introduction to Urodynamics- Lower urinary tract function/terminology/assessment (2 hours)

Introduction to course

Physiology of lower urinary tract (LUT) function and dysfunction

- Anatomy and physiology of LUT

- Control of micturition

- Classification of voiding dysfunction

ICS terminology

- LUTS, urodynamics terminology

- Introduction to good urodynamic practice

Evaluation of LUT function and role of urodynamics

- History, examination, voiding diary, symptom questionnaires, functional testing, imaging/anatomical evaluation

Indications for urodynamics (panel discussion)

Principles of Urodynamic testing

- General principles of functional testing, uroflowmetry, PVR assessment, CMG, Voiding Pressure/flow study, EMG, imaging

Common conditions and urodynamic traces- the textbook cases! (case discussion) - panel

Q&A

Morning tea

Module 2 - How to conduct a urodynamic study (3 hrs)

Urodynamic equipment – catheters, transducers, set up and trouble shooting (20mins)

How to do a urodynamic study

Uroflowmetry

Postvoid residual assessment

The difficult catheterization- tips and tricks

Filling cystometry

Assessment of incontinence – LPP, UPP, tips and tricks

Assessment of pelvic organ prolapse

Voiding pressure flow study- male and female including positioning

EMG monitoring

Recognising artifacts and how to get out of trouble (case discussion)

Panel Discussion:

Caveats in special patient groups including positioning and logistics (neuropaths, wheelchair bound, elderly, anxious)

Complications of urodynamics- consent issues, prevention and management of complications, training and quality assurance

Lunch

Module 3 - Imaging (1.5 hours)

Role of imaging during urodynamics

Fluoroscopy- techniques, safety, tips and tricks

Ultrasound – transabdominal and transperineal imaging, case discussions

The other pelvic organs- gynaecologic/ pelvic pathologies

Q&A

Module 4 - Practical tips in interpretation of Urodynamic tracings (round table discussion) (2 hours)

Filling phase abnormalities/ overactive bladder (Detrusor overactivity, poor compliance, increased/decreased sensation, neuropath)

Assessment of incontinence (female and male, techniques, LPP, PF assessment, tips and tricks)

Assessment of pelvic organ prolapse (including practical considerations for urodynamics in patients with pelvic organ prolapse)

Male and Female Voiding dysfunction (Outlet obstruction, Hypocontractile Bladder, Pelvic Floor Dysfunction, DSD)

Case/ tracing presentations and discussion by participants

**Day 2 Hands-on Workshops - Department of Urology, Concord Hospital
(Sunday)**

Module 5 – Hands-on Workshop – Urodynamics (2 hours)

- Station 1. Setting up and using the equipment
Different urodynamics equipment, transducers, catheters, lines, zero balancing, troubleshooting
- Station 2. Catheters and tips for difficult catheterization
Single and dual lumen catheters, asepsis, catheterization techniques
- Station 3. Artifacts and troubleshooting
Recognition of different artifacts on urodynamic tracings, strategies for dealing with problems during urodynamics
- Station 4. Interpretation of urodynamic traces
Flow study, Filling cystometry, LPP, Pressure/flow studies, EMG

Q & A (15mins)

Module 6 – Hands-on Workshop – Ultrasound (3 hours)

Principles of ultrasound (US equipment, transducers, image optimization principles and artifacts)

Hands on Scanning Stations 30 mins per station (live models)

- Station 1. Image optimization using machine controls
Transducers, machine settings and controls, tips for image optimization
- Station 2. Imaging of bladder
Transabdominal imaging of bladder, imaging planes, pelvic anatomy, volume measurements
- Station 3. Imaging of kidneys
Techniques of renal imaging, imaging planes, anatomy, renal pelvis measurements
- Station 4. Pelvic floor imaging (transperineal, transvaginal)
Technique of transperineal and transvaginal imaging, pelvic anatomy, dynamic assessment of pelvic floor

Tips for ultrasound imaging during urodynamics

How to choose ultrasound equipment

Lunch

Module 7 - Advanced interpretation of urodynamics and complex cases (case discussions) (2.5 hours)

Complex storage and voiding dysfunction – including pelvic floor dysfunction, combined urinary incontinence and pelvic organ prolapse

The neuropath – urods in SCI, spina bifida, CVA, Parkinsons

The older, frail patient – hypocontractile bladder, combined DO and hypocontractility

The paediatric patient – neuropath, voiding dysfunction

The patient with mesh complications - including pain

Evidence based medicine- what does the literature say about utility of urodynamics?

Urodynamics reporting – what makes a useful report?

Conclusion- Q&A and Course feedback

Course Fees

Consultants – \$900

Accredited Trainees in Urology or Gynaecology - \$700

Nurse/ Physiotherapist/ Scientist - \$500