Advanced Male Urethral Catheterisation (AMUC) Workshop - Theoretical Part
Industry Session by URETHROTECH

Saturday 17 March
12:45 - 13:45

Location: Green Area, Room 12 (Level 1)
Chair: D.E. Andrich, London (GB)

Designed for nurses and doctors already familiar with standard catheterisation skills, but who would like to expand their competence to Advanced Male Urethral Catheterisation (AMUC) skills to manage difficult male urethral catheterisation safely and independently.

This workshop exists of two parts:
- Theoretical Part: Saturday 17 March, 12.45 - 13.45
No seperate registration is needed

- Practical Part: Sunday 18 March, different timelsots
Registration is needed (registrations@congressconsultants.com)
This course is all about solving the medical emergency of difficult or failed urethral catheterisation, which in most cases happens in elderly men due to an enlarged prostate.
Part 1
1. Development and Rationale behind UCD®
2. Managing Difficult Catheterisation
3. Identify patients who need referral for specialist intervention

Part 2
Hands-on-UCD® Practice
Part 1
1. Development and Rationale behind UCD®
2. Managing Difficult Catheterisation
3. Identify patients who need referral for specialist intervention

Part 2
Hands-on-UCD® Practice
Traumatic urethral catheterisation turns a simple procedure into an emergency.
Traumatic urethral catheterisation turns a simple procedure into an emergency

- 4 Mio catheters inserted in UK/year
- 25% patients have urethral catheterisation during Hospital stay

1. Development and Rationale behind UCD®

<table>
<thead>
<tr>
<th>Data Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retrospective</td>
<td>3 per 1000</td>
</tr>
<tr>
<td>Prospective</td>
<td>7 per 1000</td>
</tr>
<tr>
<td>High-risk Patients</td>
<td>7 in 100</td>
</tr>
</tbody>
</table>

retrospective data
prospective data
high-risk patients
Traumatic urethral catheterisation turns a simple procedure into an emergency

- **4 Mio** catheters inserted in UK/year
- **25%** patients have urethral catheterisation during Hospital stay

Each case of Urethral Catheterisation Injury (UCI) is associated to significant short-term morbidity with **80%** of patients experiencing Clavien 2 or greater complications.

---

3. Mistry K, Roberts, N, Mundy et al. A new urethral catheterisation device (UCD™) to manage difficult urethral catheterisation. WJUR 2018; (in press)
Traumatic urethral catheterisation turns a simple procedure into an emergency.

Urethral Catheterisation Injury (UCI)
£215Mio / year problem in the UK
exclusive of any potential medico-legal costs

£8000/UCI

- Urinary infection
- Sepsis in 1/3 of patients*
- Fournier’s gangrene (mortality 7.5 - 40%)
- Urethral stricture

“long-term burden to individuals who experience UCI is potentially life altering”

* 5% required inotrope support in the Intensive Care Unit after a misplaced urethral catheter
Guide wire catheterisation techniques

- guide wires well established in Medical Practice
- so far no ready-to-use catheter with integrated guide wire available
- Healthcare Professionals forced to improvise...
Problems with ‘DIY’ - guide wire catheterisation techniques

- difficult to make hole exactly at tip
- damage balloon inflation channel
- Needle stick injury risk!

1. Development and Rationale behind UCD®
Problems with ‘DIY’ - guide wire catheterisation techniques

• Needle stick injury!
Urethrotex’s NICE-approved UCD® integrates a non-traumatic guide wire into a 3-way urethral catheter design. ‘Seldinger Technique’ principle
Urethral Catheterisation Device (UCD®)

Indication: difficult/failed, or anticipated difficult male urethral catheterisation

1. Development and Rationale behind UCD®

- Large side holes for good urine drainage
- Guide wire exit at round Nelaton tip
- Integrated non-traumatic 90cm hydrophilic Nitinol guide wire
- Attached plug after guide wire removal
- Guide wire luer-lock stopper for lubrication and safety
- Foley balloon Valve 5-10cc
Problem Solution

Urethral Catheterisation Device (UCD®)

Indication: difficult/failed, or anticipated difficult male urethral catheterisation

1. Development and Rationale behind UCD®

Difficult ≠ Trauma
ADVANCED MALE URETRAL CATHETERISATION COURSE

“Empowering Healthcare Professionals to provide safe urethral catheterisation”

Part 1
1. Development and Rationale behind UCD®
2. Managing Difficult Catheterisation
3. Identify patients who need referral for specialist intervention

Part 2
Hands-on-UCD® Practice
1. Take patient history

**‘LUTS’ — lower urinary tract symptoms**

- OAB-detrusor overactivity
- Benign Prostatic Obstruction (BPO)
- And others...
- Nocturnal pollasia
- Detrusor under-activity
- Neurogenic bladder dysfunction
- Urinary tract infection
- Foreign body
- Prostatitis
- Bladder tumour
- Urethral stricture
- Distal ureteral stone

2. Managing Difficult Catheterisation

- TWOC-Clinic
- BCG-Clinic
- Emergency Department
- ITU/wards
- Community
- Hospice care
1. Take patient history

‘LUTS’ — lower urinary tract symptoms

- Ageing population!

2. Managing Difficult Catheterisation
2. Managing Difficult Catheterisation – Standard Approaches
ADVANCED MALE URETHRAL CATHETERISATION COURSE

“Empowering Healthcare Professionals to provide safe urethral catheterisation”
Go to www.urethrotech.com/meetings.html to view the video
**UCLH-New Male Catheterisation Algorithm**

1. **First pass Urethral Catheter**
   - Successful Insertion
   - Resistance/failure to pass into bladder

2. **Second line UCD®**
   - Guide wire turns and exits at meatus (>2x)
   - Resistance/buckling of UCD®-catheter
   - Specialist / Cystoscopy
2. Managing Difficult Catheterisation - with the UCD®
Go to **www.urethrotech.com/meetings.html** to view the video
Part 1
1. Development and Rationale behind UCD®
2. Managing Difficult Catheterisation - with the UCD®
3. Identify patients who need referral for specialist intervention

Part 2
Hands-on-UCD® Practice
UCLH-New Male Catheterisation Algorithm

3. Identify patients who need referral for Specialist intervention

First pass Urethral Catheter

- Successful Insertion
- Resistance/failure to pass into bladder

Second line UCD®

- Guide wire turns and exits at meatus (>2x)
- Resistance/buckling of UCD®-catheter
- Successful UCD® Insertion
- Specialist / Cystoscopy
Go to [www.urethrotech.com/meetings.html](http://www.urethrotech.com/meetings.html) to view the video
Go to www.urethrotech.com/meetings.html to view the video
3. Identify patients who need referral for Specialist intervention

First pass Urethral Catheter

- Successful Insertion
- Resistance/failure to pass into bladder

Second line UCD®

- Successful UCD® Insertion
- Guide wire turns and exits at meatus (>2x)
- Resistance/buckling of UCD®-catheter

Specialist / Cystoscopy
Urethral Stricture

3. Identify patients who need referral for specialist intervention

- \(<60\text{y}\): idiopathic bulbar urethral stricture
- \(>60\text{y}\): iatrogenic TURP/post-surgery/catheterisation stricture

Normal vascular urethral wall
Stricture Dilatation Management

3. Identify patients who need referral for specialist intervention

We can dilate safely blind over guide wire

Cook S-shape dilator

Urethrotech UCD
Stricture Dilatation Management

3. Identify patients who need referral for specialist intervention

1. Urethrotech UCD

safely dilate over guide wire

Soft stricture
Stricture Dilatation Management

3. Identify patients who need referral for specialist intervention

2. Cook S-Dilator

safely dilate over guide wire

Hard stricture
UCLH-New Male Catheterisation Algorithm

1. First pass Urethral Catheter
   - Successful Insertion
   - Resistance/failure to pass into bladder

2. Second line UCD®
   - Guide wire turns and exits at meatus (>2x)
   - Resistance/buckling of UCD®-catheter

3. Specialist / Cystoscopy

4. Successful UCD® Insertion

3. Identify patients who need referral for Specialist intervention
Guide Wire Turns ..

3. Identify patients who need referral for specialist intervention

Cystoscopically

**insert**

**guide wire**

into bladder

**Purohit-Blaivas Stricture Staging System**

- **Stage 1:** Easy passage of the scope
- **Stage 2:** Gentle dilation required for scope passage
- **Stage 3:** Impassable but has a visible lumen
- **Stage 4:** No visible lumen
UCLH – Service Innovation Male Catheterisation

Supporting the delivery of high-quality, cost-effective Health Care

- Catheterisation Trolley
  * 1st & 2nd line safe urethral catheterisation

- Mandatory staff hands-on training (AMUC)
  * basic life support model

- Advanced Clinical Nurse Practitioner
  * bed-site Flexible cystoscopy for failed UCD®

- Stream lined Urology referrals
  * Urology follow-up
UCLH-New Male Catheterisation Algorithm

First pass Urethral Catheter

- Successful Insertion

Second line UCD®

- Resistance/failure to pass into bladder
- Guide wire turns and exits at meatus (>2x)
- Resistance/buckling of UCD®-catheter

Successful UCD® Insertion

Specialist / Cystoscopy
Results I – Retrospective Audit (Sept 2016—August 2017)

<table>
<thead>
<tr>
<th>Patients attending for TWOC</th>
<th>Successful TWOC</th>
<th>Failed TWOC</th>
<th>Successful re-catheterisation with standard catheter</th>
<th>Difficult re-catheterisation with standard catheter</th>
<th>Complications of difficult re-catheterisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=540</td>
<td>n=371</td>
<td>n=169</td>
<td>n=163 (of 169) 96%</td>
<td>n=6 (of 169) 4%</td>
<td>Bleeding 0% Urologist Called 0%</td>
</tr>
<tr>
<td>n=1002</td>
<td>n=776</td>
<td>n=226</td>
<td>n=169 (of 226) 75%</td>
<td>n=57 (25%)</td>
<td>Bleeding 40% Urologist Called 18%</td>
</tr>
<tr>
<td>n=194</td>
<td>n=158</td>
<td>n=36</td>
<td>n=33 (of 36) 91%</td>
<td>n=3 (4%)</td>
<td>Bleeding 0% Urologist Called 0%</td>
</tr>
</tbody>
</table>

UCDH – Service Innovation Male Catheterisation
Supporting the delivery of high-quality, cost-effective Health Care

UCD®- TWOC-Clinic Service Innovation

<table>
<thead>
<tr>
<th>User Patient</th>
<th>feed-back</th>
<th>Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Patient Name]</td>
<td>[Hospital Address / e-mail]</td>
<td></td>
</tr>
</tbody>
</table>

Please comment and offer us to learn from your experience.
Quiz
Photomicrograph of Fournier gangrene (necrotizing fasciitis).

Note the acute inflammatory cells in the necrotic tissue. Bacteria are located in the haziness of their cytoplasm.

Courtesy of Billie Fife, MD, and Thomas A. Santora, MD
Urethral Catheterisation Injury (UCI) is a preventable patient care error!

Fournier gangrene (necrotizing fasciitis) ... due to misplaced catheter!
Cystoscopically insert guide wire into bladder.
Conclusion

• **Traumatic** urethral catheterisation turns a simple procedure into an emergency

info: www.urethrotech.com
Conclusion

• **Traumatic** urethral catheterisation turns a simple procedure into an emergency
• **Urethral Catheterisation Injury (UCI)** is associated to significant short-term morbidity and long-term complications

info: www.urethrotech.com
Conclusion

- **Traumatic** urethral catheterisation turns a simple procedure into an emergency
- **Urethral Catheterisation Injury (UCI)** is associated to significant short-term morbidity and long-term complications
- **UCI £215Mio / year problem** in the UK

info: [www.urethrotech.com](http://www.urethrotech.com)
Conclusion

- **Traumatic** urethral catheterisation turns a simple procedure into an emergency
- **Urethral Catheterisation Injury (UCI)** is associated to significant short-term morbidity and long-term complications
- **UCI £215Mio / year problem** in the UK
- The UCD® is easy to use and empowers nurses to manage difficult catheterisation **independently and safely** in any clinic environment

info: [www.urethrotech.com](http://www.urethrotech.com)
Conclusion

- **Traumatic** urethral catheterisation turns a simple procedure into an emergency
- **Urethral Catheterisation Injury (UCI)** is associated to significant short-term morbidity and long-term complications
- **UCI £215Mio / year problem** in the UK
- The UCD® is easy to use and empowers nurses to manage difficult catheterisation independently and safely in any clinic environment
- The **UCD® catheterisation solution** avoids unnecessary referral to hospital specialists and patient care is not delayed

info: [www.urethrotech.com](http://www.urethrotech.com)
ADVANCED MALE URETHRAL CATHETERISATION COURSE

“Empowering Healthcare Professionals to provide safe urethral catheterisation”

AMUC Training Certificate
please email training@urethrotech.com

Lecture available at www.urethrotech.com
Aims and objectives of this session
Objectives:
1. To understand the development and rationale behind the UCD®
2. Gain confidence in managing difficult or failed male urethral catheterisation
3. To be able to identify patients who need referral for specialist intervention
4. To gain hands-on experience using the UCD®
5. AMUC training certificate

Available timeslots:
09.00-09.45
10.00-10.45
11.00-11.45
12.00-12.45
13.00-13.45
14.00-14.45
15.00-15.45
16.00-16.45
17.00-17.45

Please collect
Hands-on
Practical Part
Vouchers at
Urethrotech booth

To register for this workshop, please send an email to:
registrations@congressconsultants.com, including the following information:

Course: EAUN18 AMUC Workshop - Practical Part
Name: Firstname, LAST NAME
Timeslot: preferred timeslot

Kindly note, for this workshop there is no separate registration fee.