

## INCIDENCE OF VIDEO-URODYNAMICS RELATED URINARY TRACT INFECTION, A STUDY OF 878 PATIENTS

### Hypothesis / aims of study

Video-urodynamic study (VCMG) is a standard investigation for patients with bladder dysfunction. They are performed as a baseline and further VCMG tests are conducted according to the clinical intervention.

Studies report that the incidence of UTI post VCMG in the general population is between 1-30% [1]. In patients with spinal cord injury it has been reported as 8% [2]. The use of prophylactic antibiotics is controversial with no definitive recommendations for its use with VCMG [3].

A prospective audit of the incidence of UTI in patients who underwent VCMG in our institution was conducted over 2½ yrs. A cohort of 878 patients presenting with neuropathic and non-neuropathic bladder dysfunction were included.

The objective of the audit was to determine an overall rate of UTI that could be attributable to the VCMG study. A UTI was defined as being symptomatic and requiring antibiotic treatment within 48hrs post VCMG. A second objective was to identify whether there was a correlation between the type of bladder management and the risk of UTI post VCMG.

### Study design, materials and methods

Each patient undergoing VCMG had a dipstick urinalysis done pre-study. If the patient presented with a symptomatic UTI the VCMG was not performed. If the patient was asymptomatic the VCMG was conducted irrespective of the urinalysis result. All positive urinalysis to leucocytes and nitrites had a urine culture performed. At approximately one week post VCMG the patients were contacted and asked if they developed a UTI within 48hrs after their VCMG study according to the definition i.e. symptomatic requiring antibiotics.

### Results

The overall incidence of UTI post VCMG was 4.44%.

	Patient Total	UTI total	%
<b>ISC</b>	339	18	5.31
<b>ISC + Voids</b>	56	4	7.14%
<b>SPC</b>	152	6	3.95%
<b>Voiding</b>	247	8	3.24%
<b>IDUC</b>	66	0	0%
<b>Reflex voiding</b>	11	2	18.18%
<b>Strain voiding</b>	4	1	25%
<b>Incontinent/pads</b>	3	0	0%
<b>Total</b>	<b>878</b>	<b>39</b>	<b>4.44%</b>

**Figure 1** The overall incidence of UTI post VCMG was 4.44%

### Interpretation of results

The highest incidence of UTI was in the strain voiding group (25%, 4 patients) and in reflex voiding (18 %, 11 patients). However, these low number groups would make them statistically not significant. The IDUC group showed a 0% incidence of UTI (66 patients). This patient group were predominately inpatients and a silver coated anti-infective catheter was inserted on all post VCMG.

### Concluding message

The overall incidence of UTI post VCMG in our institution is 4%. This enables us to assess risk and to ensure informed evidence based patient consent to the procedure. This allows us to benchmark our practice and to monitor risk in our patients as well as to monitor the use of prophylactic antibiotics. Further multi-centre studies are needed for a larger comparison.

### References

1. Gurbuz et al 2013
2. Sung-Il et al 2016
3. Foon, Toozs-Hobson and Latthe 20112

### Disclosures

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** An Audit registered with our institution **Helsinki:** Yes **Informed Consent:** Yes