

## UK NATIONAL X-RAY VIDEO URODYNAMICS AUDIT 2010/2011

### Hypothesis / aims of study

Current ICS guidelines do not specifically address different types of Urodynamics. In 2010 during the UK Continence Society (UKCS) meeting, an open discussion forum was held and it was identified that little information was available about which centres are performing x-ray video-urodynamics. This included clinical indications used to select patients and protocols employed when carrying out these studies. At the end of the discussion group it was agreed to undertake a questionnaire based postal survey of UK Urodynamic departments. The results from the survey would be used to inform the development of x-ray video urodynamics guidelines currently being drafted by the UKCS as part of their initiative to improve the delivery of Urodynamics services.

### Study design, materials and methods

A questionnaire was developed and sent to 187 departments to establish which hospitals were undertaking x-ray video urodynamics and to obtain information on service delivery. The questionnaire covered a number of facets related to the delivery of x-ray video urodynamics services including; the number of patients investigated, clinical indications, staff groups involved, efficiency of recording x-ray doses, calibration of the machine, type and volume of contrast media used. Specifics about the x-ray video urodynamics protocol used in each centre were also requested such as times in the examination when the x-ray images are acquired.

### Results

63 (34%) centres replied and of these 50 departments offer urodynamic services and 45 video urodynamics. The median number of urodynamic sessions carried out per week is 4.0 (range 1 to 14). The majority of departments provide up to a maximum of 2 Video Urodynamics sessions per week and 5 centres are able to perform x-ray video urodynamics in all sessions. The majority of centres refer 100 - 200 patients are for video urodynamics per annum (Figure1). 31 had defined indications for video urodynamics studies and most common indication was for patients with Neuropathic bladder (Figure 2). In 17 units the examinations were performed by a nurse, a consultant clinician and a radiographer. X-ray imaging is carried out during filling, provocative manoeuvres and voiding in 22 departments. Of 40 replies 10 units had implemented the UKCS training & accreditation programme and 23 were planning to apply. 12 of the 45 centres responded indicated that they would repeat Urodynamics investigations in more than 25% of cases where the investigation had recently been undertaken in another centres.

### Interpretation of results

Although there appear to be a number of common elements in the delivery of Video Urodynamics services across the United Kingdom there does appear to be sufficient disparity that a set of guidelines would be a useful step forward providing a standardised approach. The four areas of most concern from the survey-were: the repetition of the studies in just over a quarter of patients; lack of understanding of the requirements by Ionising Radiations Medical Exposures Regulations 2000 (IRMER 2000) [1] for traceable recording of ionising radiation doses; variation in the numbers of video urodynamics performed in each centre (minimum standards for Urodynamics 2009 guidance suggests 200 studies yearly, with 30 cases per annum for specific patient groups) and lack of standardised referral indications for Video Urodynamics examinations as per good Urodynamic practice 2002 guidance.

### Concluding message

This survey provides a snap shot of current x-ray video urodynamic examination practices in the UK. From the information provided in the responses there is an urgent need to provide practical guidelines on the role of x-ray video urodynamics services. The new guidelines should enable departments in meeting the requirements of the IRMER 2000 regulations and reduce the number of repeated examinations thereby making better use of resources.

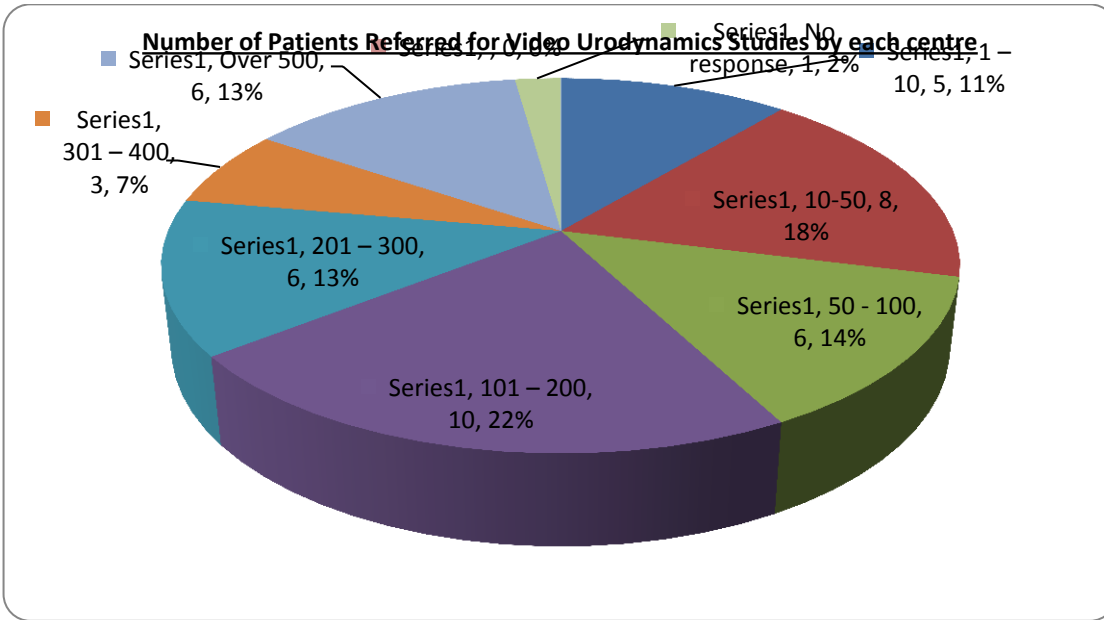


Figure 1: Numbers of patients referred for x-ray video Urodynamics studies by each centre

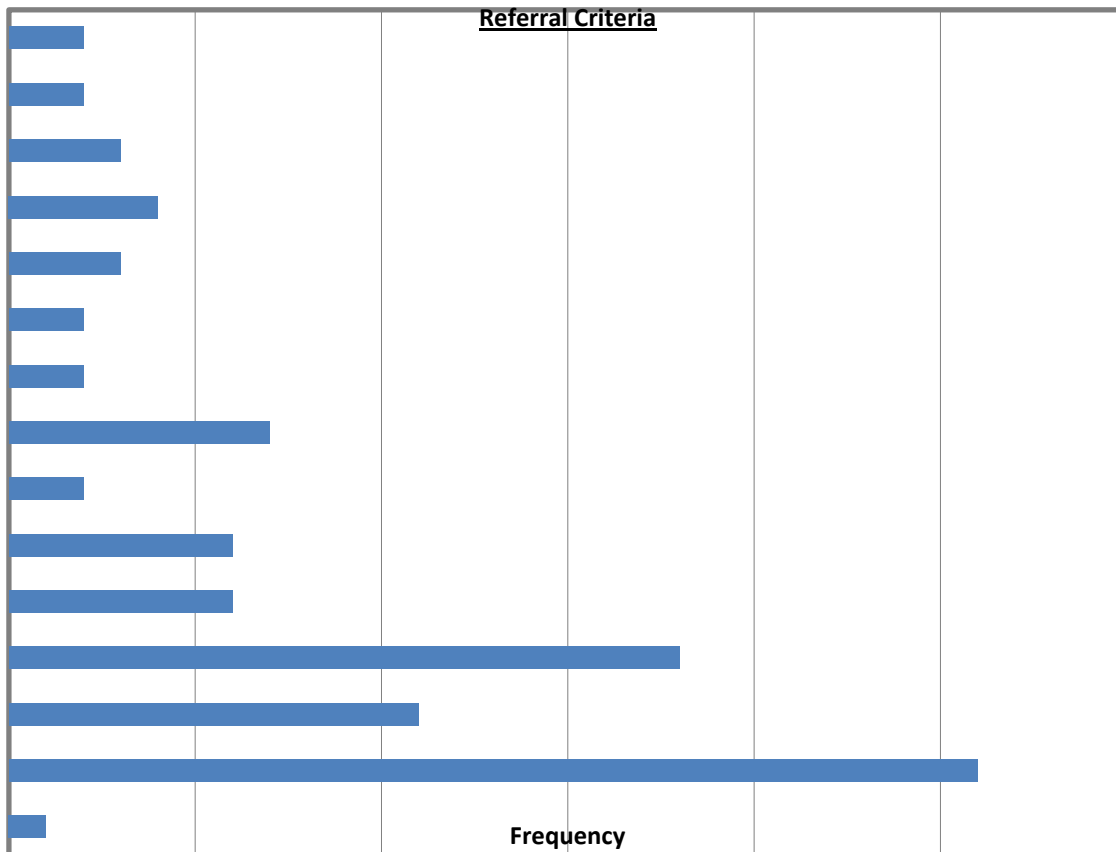


Figure 2: Referral Indications for x-ray video urodynamics studies

References

1. The Ionising Radiation (Medical Exposure) Regulations 2000; UK Statutory Instrument 2000 No. 1059

Specify source of funding or grant	None
Is this a clinical trial?	No
What were the subjects in the study?	NONE