# Poster Session: Audit

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# The National Comparative Urological Audit Service – what has this achieved?

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**Introduction:** Evaluation of clinical practice is an established requirement for urologists in the UK. The audit office at the Royal College of Surgeons of London has now run three national comparative urological audits since 1993, each lasting 6 months.

**Methods:** To assess the value and limitations of this service, the participation is analysed together with results and comments received from a postal questionnaire.

Results: Each year has seen an increase in participants at 12%. 14% and 18% (expected 95/96) of the BAUS Consultant Membership. National data for workload based on over 67000 admissions now exist, corrected for manpower (a single consultant) over a 6-month period: admissions 410, operations (intermediate equivalent) 325, new outpatients 260, follow-up 600, emergency admissions, 67. Specialist topics allow infrequent events to be measured, e.g. based on 468 nephrectomies, the average consultant firm perform 12 nephrectomies per year with a mortality of 3.4%. Seventy-two consultants (18%) replied to the questionnaire, 32 (44%) were previous non-participants who cited lack of time as the major obstacle, only one cited regional audit. Previous participants (56%) requested standardized data collection protocols, comparisons between equivalent hospitals and commented on the difficulty in assessing complications. Data have been used for local resource negotiations. Many recommended increased participation.

**Conclusions:** Improvements in data protocols have evolved. Data are available for workload analysis, emergency commitment and surgical experience available for urological trainees. Although participation remains low, the value of networking urologists for pooled data collection is demonstrated. This may encourage the development of e-mail for downloading audit data and use of electronic network discussion notice boards.

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#### Written consent is haphazard for minor urological procedures

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**Introduction:** Following a management directive to introduce written consent for patients undergoing flexible cystoscopy, we conducted a nation-wide survey of current practice.

Method: Questionnaires were sent to 399 full members of BAUS. with a response rate of 34%.

**Results:** Urologists obtained written consent for the various procedures in the following proportions: flexible cystoscopy (47%), urethral dilatation (42%), suprapubic catheterization (11%), intravesical chemotherapy (10%), urodynamics (4%), urethral catheterization for retention (< 1%) and documentation in the notes that the risks and benefits had been explained to the patient (11%). There was inconsistency of policy both among urologists and by individual urologists at different times. Urologists who obtained written consent for flexible cystoscopy did not consistently do so for urethral dilatation. Even fewer obtained consent for suprapubic catheterization or intravesical chemotherapy.

**Conclusion:** Written consent was not related to the risk or invasiveness of the procedure. Where the procedure takes place, tradition or trust policy may be stronger determinants of local practice. At present in the UK, consent is haphazard. Given the medico-legal importance of truly informed consent, these findings are alarming. Consensus among British Urologists is urgently required so that national guidelines can be developed.

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#### Are we doing too much day surgery?

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**Introduction:** There is economic pressure to perform more day surgery. The older age and comorbidity of urological patients, together with the diagnostic nature of many urological procedures may lead to high admission rates following day surgery.

Methods: We retrospectively reviewed urological procedures in a day surgical unit since 1988.

**Results:** 

	1988	1989	1990	1991	1992	1993	1994	1995	Total
Procedures % Admissions		376 9·0	359 7·5	328 8·8	340 7·9	323 9.9		310 5·5	

Seventy-two percent of admissions were for surgical reasons, with an anaesthetic indication in 18% and a social indication in 10%. TURBT accounted for 45.7% of admissions, with procedures for urethral strictures a further 19.2% of admissions. Urethral catheterization was necessary in 57.0% of admissions, although half were discharged the following day after successful trial without catheter. The median inpatient stay was 1 night but a longer mean admission was necessary following TURBT. Admission rates were higher for TURBT of primary tumours than recurrences and for procedures performed by junior staff. Over half of the patients admitted had previous or subsequent successful day-case surgery and only 24 (10%) of admissions were felt to have been inappropriate for day surgery.

**Conclusion:** The Royal College of Surgeons of England state that admission rates following day surgery should be less than 2-3%. This review suggests that urological day surgery carries higher admission rates and emphasizes the value of thorough pre-assessment. Further reductions may still be possible in patients undergoing TURBT.

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#### Is urological practice evidence-based?

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Introduction: Commentators on the scientific basis of health care are frequently critical of the lack of solid evidence for many medical interventions. There are now widespread moves to establish a knowledge-based health service in which evidence is put into practice and performance is monitored. This study examines whether current urological practice is evidence-based.

Patients and methods: A prospective audit of all 214 patients admitted under the care of the Urology Unit during October 1995 was carried out. A primary diagnosis and management plan was recorded for all patients. Therapies were categorized into the following subgroups: oncology. obstruction, infection, calculus disease. incontinence or miscellaneous. A literature search was performed for all diagnoses and treatments to see if there was evidence for the interventions undertaken. Evidence was grouped into three levels: Level 1: Interventions whose value had been established in one or more randomized controlled trial (RCT) or overviews of RCTs. Level 2: Convincing non-experimental evidence. RCTs (with wide confidence intervals), or well designed observational studies. Level 3: Any intervention in common use, but failing to meet the above criteria.

**Results:** 

	Level 1	Level 2	Level 3
Oncology	7	36	
Urinary tract obstruction	20	26	
Urinary tract infection		17	10
Calculus disease		14	
Incontinence	2	29	3
Miscellaneous		41	9

One hundred and ninety-two (90%) patients were judged to have received evidence-based interventions (Level 1 or 2). Most of these interventions fell into the level 2 category, while 10% of patients had treatments unsupported by literature review.

**Conclusions:** Most patients underwent evidence-based interventions. However, there have been relatively few random allocation trials of urological surgery. Further controlled trials are needed to question the efficacy of established or developing treatments.

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#### Teleconferencing in urological practice. A pilot study

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**Introduction:** Like many departments we are continually auditing the efficiency of our mechanisms for arranging out-patient consultations and communication with GPs. Many of our patients are old and infirm and parking facilities in our part of North London are limited, making a visit to hospital a difficult matter for the elderly. To explore means of facilitating the exchange of information and advice, we have participated in a trial of video conferencing, organized by the Departments of Primary Care of the Joint Medical Schools.

**Methods:** A VC8000 system was used, with links to several local family practices. Digital telephone lines were installed by BT allowing a teleconferencing unit to be brought into the Urology Clinic. The twoway television/sound link was then established by the Family Practitioner 'phoning in on a direct line. Patients were introduced to

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Table 1

# The use of the Haemonetic $^{\mathsf{TM}}$ cell saver in major urological surgery

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Introduction: Homologous blood is increasingly in short supply and is regarded as an inferior product compared to autologous blood. Materials and methods: Between March 1992 and November 1995, our unit used the cell saver (Haemonetics UK Ltd) to scavenge autologous blood in 101 patients undergoing a variety of urological procedures (Table 1). the Consultant and a two-way consultation then ensued, with both parties being able to see and hear the other.

**Results:** The system is currently being evaluated for participant satisfaction, its impact on working practices, the technical performance of equipment and cost effectiveness.

**Conclusions:** Video conferencing material is now commercially available and the necessary digital telephone lines can be readily installed by BT. The VC8000 system was used in this study and is available commercially at a cost of  $\pounds$ 3000. After initial 'teething troubles' this mobile system has been shown to work well and can be sited conveniently in the out-patient clinic. Future developments and applications will be discussed.

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### POSSUM-how to do it in urology

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**Introduction:** The POSSUM scoring system (Physiological and Operative Severity Score for the enUmeration of Morbidity and Mortality) was devised in 1991 by a general surgeon, G.P. Copeland. It has been shown to be a good predictor of morbidity in groups of patients undergoing urological surgery. However, the methodology for POSSUM scoring in urology has never been published and this has led to confusion amongst authors.

**Methods:** We have performed POSSUM scoring in over 2000 patients undergoing a wide variety of procedures in two urological units over the last year. Additional factors which were thought to be relevant to urological practice (e.g. presence of urine infection; dementia score) were also recorded.

**Results:** On the basis of this work, the poster presents a proposed, modified, methodology for 1) capturing and calculating POSSUM scores for urology, 2) calculating expected morbidity for urology patients, 3) defining and capturing in-patient and 30-day post-operative morbidity and mortality.

**Conclusion:** The potential of POSSUM as an audit tool for comparing surgical outcomes in urology will only be achieved if definitions and the methodology of scoring become standardized for all units.

**Results:** A total of 63L (equivalent to 315 units of homologous blood) was cell-saved, a mean of 624 mL per patient (3 units). However, 37% of patients required additional homologous blood (total 159 units, mean  $4\cdot 1$  units, range 2 to 12 units).

In radical prostatectomy and when heavy bleeding occurred with TURP, the cell saver eliminated the need for homologous transfusion in 71% and 90% of cases, respectively. In addition, it halved the homologous blood requirement for radical cystectomy.

**Conclusions:** The cell saver has proved to be cost effective and we recommend that it be used routinely in radical prostatectomy and cystectomy and be on 'stand-by' for open prostatectomy, nephrectomy, CLAM cystoplasty and TURP.

Operation	Cystectomy	Nephrectomy	Nephrectomy (complex)	Radical prostatectomy	Open prostatectomy	TURP	CLAM
Number26Volume blood saved (mL)16147		10	5	17	20	20	3
		2932	3414	13705	10313	15 309	1272
Units	80·7	14·6	17·0	68·5	51·5	76∙5	6·4
Mean cell saved (mL)	621	293	682	806	515	765	424
Units	3·1	1·5	3∙4	4	2·6	3·8	2∙1
Range	225−1330	200–320	250–1640	250–1850	220–1840	240–1825	240–782
% needing additional homologous blood	73	40	40	29	30	10	33