

resulting in inadequate monitoring of 21 patients. Secondly, urine output was not monitored in 34 patients.

Thirdly, shocked patients (blood pressure <100 mm Hg, postural drop in blood pressure, thirst, tachycardia) were identified but not always monitored as closely as they should have been. Of the eight shocked patients, four did not have a urinary catheter, six received colloid in the first hour, and five received blood in the first four hours.

Fourthly, blood transfusion was judged to be late (>24 hours after admission) or insufficient owing to underestimation of blood loss in nine patients.

Fifthly, surgical assessment on admission was delayed by more than six hours in 24 patients.

Finally, abnormal clotting was not corrected in two patients.

It is salutary that the deficiencies in the management of these patients were largely due to the failure to apply simple clinical and nursing measures rather than any deficiency of high technology medicine. Careful haemodynamic monitoring and fluid and blood replacement have always been the key to managing patients with gastrointestinal bleeding successfully. This simple audit serves to re-emphasise this.

On the basis of the deficiencies identified by the audit the protocol has been modified. The revised protocol will again be given to all junior staff concerned in managing patients with gastrointestinal bleeding and will be incorporated into a handbook of protocols for common medical emergencies being compiled for junior staff.

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Psychological aspects of lower urinary tract infections in women

SIR,—In their article on the psychological aspects of lower urinary tract infections in women David Sumners and colleagues make the point that assessment of clinical symptoms alone was not helpful in distinguishing between true urinary tract infection and the urethral syndrome in women presenting with dysuria and frequency.¹ They also suggest that antibiotics might be prescribed more appropriately if significant bacteriuria could be predicted before the result of culture was available. We agree with both these points but suggest that this would be the case if microscopic examination of the urine specimen was undertaken in the practice straight after the sample was passed.

Several studies have shown the value of early microscopic examination in diagnosing urinary tract infection in both general practice and hospital.^{2,3} Not only can pyuria be detected in fresh, unspun urine but recent work has shown that bacteriuria can be recognised and is more specific for diagnosing urinary tract infection than pyuria alone.³ Uninfected samples can be recognised and discarded, which saves laboratory expense, unnecessary antibiotics, and costly investigation.

Obtaining the equipment to perform urine microscopy need not be prohibitively expensive.

We have found that a mirrored counting chamber costing under £50 (Hawksley and Sons, Lancing, Sussex) gives good definition and allows bacteria to be recognised easily even with a cheap light microscope. Phase contrast microscopy gives optimum definition, and a relatively inexpensive model is now available—namely, the updated McArthur microscope (K W Kirk and Sons, Milton, Cambridge), which has been around as a light microscope since 1974. This has the advantage of measuring only 10×9×5 cm and being very robust. Coltman comprehensively documented its usefulness in general practice.²

Our experience has been that microscopic examination of urine is not a difficult skill to acquire, and the time saved in writing out laboratory forms and chasing up results more than compensates for the short time it takes to look at the specimen, in addition to the satisfaction of making an instant diagnosis for the patient.

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SIR,—In their study of the psychological aspects of lower urinary tract infections in women David Sumners and colleagues attempt to differentiate between urinary tract infection and the urethral syndrome by using “case notes, clinical symptoms, or psychiatric state.”¹ Their criteria for diagnosing the urethral syndrome, however, are unclear, and they seem not to have excluded infection with organisms such as *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and *Trichomonas vaginalis*.²

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SIR,—David Sumners and colleagues' paper on the psychological aspects of lower urinary tract infections in women would have been more informative if they had paid greater attention to detail.¹ In their comparison of women with and without urinary tract infections presenting to general practitioners one of the two significant differences that they were able to show between the two groups was in the prevalence of nocturia. Regrettably, they did not define nocturia. It is generally accepted that voiding once in the night is acceptable but twice or more times is regarded as abnormal. The other significant difference was in the dysuria score between the two groups. The

authors state that the difference in the means yielded a *t* statistic of 1.998, which is significant. Calculation of this statistic from their presented means and standard deviations, however, results in *t*=1.8, which is not significant.

The authors have assumed that patients presenting with dysfunction of the lower urinary tract who do not have a urinary tract infection have the urethral syndrome. This is obviously incorrect as they have ignored the possibility of various other abnormalities of the urinary tract, such as detrusor instability. The authors do not define the urethral syndrome but state that its aetiology has been the subject of considerable debate.² This is hardly surprising as the syndrome is thought to occur in young women as well as in postmenopausal women, and the treatments suggested for these two groups are completely different.³ It would be better to drop the term the urethral syndrome as it is not clearly defined and does not help clarify the therapeutic options for a problem that is already difficult to manage.

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SIR,—Unfortunately, the data in David Sumners and colleagues' study of the psychological aspects of lower urinary tract infections in women do not support their conclusion that “patients with the urethral syndrome are no more neurotic than those with significant bacteriuria.”¹ Once again, the reason is that there are too few patients in the study groups.

Wisely, O'Dowd *et al* did not claim a significant difference between the eight out of 40 patients with the urethral syndrome who had received tranquillisers and the one out of 46 patients with urinary tract infection who had received tranquillisers in their study.² Statistical tests on groups with such small numbers can be misleading. If 10% of patients with urinary tract infection had neurosis and 20% of patients with the urethral syndrome had neurosis 307 patients in each group would be needed to reach significance (95% level with power 80%) (Epi-Info computer program).

I am at present analysing the results of a study to evaluate prospectively a method of diagnosing urinary tract infection based on a Bayesian probability score which was described in 1987.³ Seven patients had received a psychoactive drug in the previous two years out of 66 patients with urinary tract infection, as compared with eight out of 60 patients with the urethral syndrome. This study is also too small to decide whether there really is a difference in prescribing of psychoactive drugs between the groups.

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AUTHORS' REPLY,—We are pleased with the interest generated by our paper. We did not intend our study to provide diagnostic criteria but to