Audit

Do patients expect too much from extracorporeal shock wave lithotripsy?

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Background: The era of patient-focused care has brought a new dimension to medical treatment. Now, as well as looking for therapies that work effectively, they must also be acceptable to patients. Previous studies in this department have shown that stone clearance rates with lithotripsy compare favourably with national standards, but very little work has been done regarding patient's own perception of the experience.

Methods: A postal survey was conducted of all patients attending the lithotripsy unit over a period of 1 year, questioning their opinion of all aspects of the treatment. The results were analysed by conversion to a numerical score.

Results: On the whole, patients expressed satisfaction, but they were more dissatisfied with the stone clearance than any other aspect of their treatment. In the light of a previous study, it was felt that the patients' expectations were unrealistic. As a result, we changed our practice such that patients attending the unit have a better idea of the likelihood of success.

Conclusions: This was a simple and cost-effective exercise, that has generated some valuable data which can be used to improve the entire patient experience.

Key words: Lithotripsy – Patient satisfaction – Survey

Extracorporeal shock wave lithotripsy (ESWL) has been a major advance in urology since its introduction in 1980.¹ Despite the wide-spread clinical application of this treatment, both in urology and general surgery,² formal evaluation of patient expectations or satisfaction with their treatment, with the exception of the level of sedation used,³ appears lacking in the literature. In the era of patient-focused therapy, it was felt important to evaluate how patients think we perform.⁴ We were particularly interested in patients' expectations of stone clearance in the light of a clinical impression which suggested unrealistic expectations.

Patients and Methods

A postal survey was conducted of all patients attending Sutton Hospital for ESWL between August 2000 and August 2001. The unit provides a service to much of south-west London, and uses a Dornier Compact S lithotripter. Standard practice is to provide information leaflets prior to the appointment detailing the location of the unit, a brief outline of the procedure, and giving a contact number for any queries. On arrival at the unit, patients are attended by a trained nurse, superintendent radiographer, and urology trainee, who perform clerking

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and obtain consent. Patients are given oral analgesia according to departmental protocol, which consists of oral paracetamol and codeine, with sublingual piroxicam. This is supplemented with intravenous midazolam, metoclopramide and pethidine after stone localisation, which has been proven to be effective in out-patient therapy. Following treatment, which typically lasts 30 min, patients are observed in a recovery area prior to being escorted home. They are discharged with analgesia to take as required, and are followed up in out-patient clinics or with further treatment, as appropriate.

The survey was in the form of a questionnaire with 15 sections (Appendix), which dealt with all aspects of the service provided, including information given beforehand, and aftercare, as well as treatment on the day. Patients were also invited to provide comments on their overall experience. In each section, patients were asked to score their satisfaction with that area, from a range of five options (very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied). The data were collected by the clinical audit department at St Helier Hospital, and analysed.

Results

A total of 340 questionnaires were issued with 162 responses (48%). For the purposes of analysis, the options were converted to numerical scores, with 1 representing very dissatisfied, through 5 for very satisfied. Overall, patients rated the unit very highly, with responses generating a range of means from 3.841 to 4.776 (Fig. 1). The unit scored highest in attitudes, with friendliness, and explanations of the procedure and its potential complications (means, 4.776 and 4.361, respectively). The unit was also complimented by the promptness of the start (mean 4.259) and smooth recovery following the treatment (mean 4.404).

It is worth noting that the poorest score in the survey was patient's expectations of stone clearance (mean 3.841). This, although disappointing, is not a true reflection of performance, as will be discussed later.

Discussion

A survey has been shown to be an effective method for evaluation of quality of care, and generating cost-effective ideas for quality improvement.⁵ As an audit exercise, this survey has been extremely useful in the evaluation of service. Overall, as can be seen readily from Figure 1, the unit performed extremely well in the eyes of the patients. The department prides itself on its atmosphere and approachability, and this seems to be justified. The mean scores for satisfaction with analgesia and sedation were 3.943 and 4.000, respectively, implying that the sedo-analgesia protocol is effective; interpreted in the light of how smooth recovery from the treatment was (mean, 4.404), this should not be altered, as any increase in the level of sedation would doubtless be to the detriment of the smooth recovery and discharge of the patient.

The administrative factors such as flexibility of appointment time and follow-up appointment also scored highly, and, again, this is something should not to be changed in the light of this report.

Perhaps the key factor is that the poorest performance in the eyes of the patients is the degree of stone clearance, although the mean score for this aspect of treatment was 3.841. Such rates of stone clearance are entirely acceptable by national standards,⁶ and so the fault must lie with patient communication. If patients expect too much from ESWL, as it would appear that they do, we must endeavour to ensure that their expectations are reasonable prior to commencing treatment. In this era of the patient as the consumer, public perception of the treatment must be realistic. This will be addressed in the out-patient clinic, and re-inforced by the urology trainee on the day of the treatment. We have also amended our information leaflets accordingly.

Conclusions

In broad terms, this audit demonstrates that our service performs well. It does, however, illustrate that patients expect too much from the treatment itself, and this needs to be addressed in the manner described above. We will, on the basis of this survey, not be adjusting any of the

Figure 1 Patient satisfaction with extracorporeal shock wave lithotripsy.

administrative aspects of treatment, or the level and type of sedo-analgesia used.

References

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Appendix

Questionnaire on the lithotripsy service at Sutton Hospital

1. **Information leaflets prior to treatment**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
2. **Flexibility of appointment time**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
3. **Friendly staff**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
4. **Explanation of procedure and possible complications**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
5. **Prompt start without delays**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
6. **Efficient staff**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
7. **Be able to see the X-rays and discuss progress**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
8. **Sleeping during treatment**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
9. **Pain-free treatment**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
10. **Smooth recovery prior to leaving the unit**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
11. **Follow-up appointment confirmed at treatment**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
12. **Take-home medication for pain relief**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
13. **Have contact numbers in case of emergencies related to lithotripsy**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
14. **Early return to work/normality**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
15. **Free from stones/stone pain**
Very dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very satisfied ☐
16. **Additional comments** -----