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Saturday June 3, 2006

14:00-14:45

Room: N107 & N108

INTRODUCTION

High quality day surgery practice depends on meticulous preparation, skilled patient focussed care, outreach into the community and then rigorous audit of the whole process. Very few units in the world can claim to have robust systems that encompass all of these aspects but this is an ideal towards which every day stay facility should strive. The bed-rock on which this entire model of care is based is preoperative assessment. This paper will focus on past theory, present practice and future developments that continue to make this area of medical and nursing care one of the most interesting and challenging within those professions.

THE BEGINNINGS

In 1949 J Alfred Lee published his views in *Anaesthesia* about the importance of pre-assessment of patients and the advantages of having a special clinic for this purpose [1]. He states "*For the anaesthetist to see the patient the evening before operation or even two or three days before that is not enough. He should be seen as soon as possible after his name is added to the waiting list. The purpose of such an interview would be to give attention to the following points, amongst others, and where necessary, to give suitable advice or treatment. Condition of respiratory system; condition of teeth and gums; condition of heart and vessels; condition of the blood, state of nutrition, liver and kidney function; psychological considerations; previous anaesthetic history.*" Who could argue with this?

With the advent of 'modern' day surgery in the 1970s and 80s, fuelled by the need for cost containment in healthcare and encouraged by the introduction of propofol and the laryngeal mask airway, it soon became apparent that good quality of care would require meticulous preoperative preparation. Many units were set up without sufficient provision for this and were then bedevilled by high numbers of patients failing to attend or perhaps even worse cancellations on the day often due to an inadequate understanding of a patient's health problems [2].

Often pre-assessment was left to the surgeon booking the case with an expectation that they would either understand all of the anaesthetic ramifications of the proposed case or alternately complete a special questionnaire, usually prepared by an anaesthetist, at the out-patient visit. Organisation of any special investigations was hoped to take place while the nursing staff noted a weight, height, pulse and blood pressure, but often this was a forlorn hope! However initially many units did not have even this type of basic system in place. [3]. Detailed explanation about the day stay process was rudimentary and local and national audit indicated considerable patient dissatisfaction with this process.

Gradually units began to develop their own pre-assessment booklets and as these started to be compared and exchanged so a general uniformity began to emerge. The contents of such a booklet are very straightforward and every anaesthetist knows what questions they would like asked. The next step forward was the provision of information sheets relating to specific operations together with little booklets about the expected patient pathway [4]. These sheets could be given to patients as they were assessed in out-patients and then again at discharge on the day of surgery. Problems still remained as surgical consultants were often reluctant to spend time completing detailed 'anaesthetic forms' and their trainees were rarely in out-patients and were busy with other duties. Anaesthetists had little opportunity to spend the necessary time in out-patients so again the system faltered.

Some units developed systems where 'medically complex' cases could be seen by an anaesthetist, often in the day stay unit where they would have their surgery but it was not always simple to obtain uniform agreement throughout a department of anaesthesia on what was and what was not suitable for day stay care. Even simple decisions about whether or not to perform routine haematological or radiological investigations seemed difficult to agree. By the mid 1990's very few units had developed any form of anaesthesia-run pre-assessment for every patient.

NURSE-LED ASSESSMENT

From 1992 onwards the Royal College of Nursing in London started to promote the concept of Nurse Practitioners. These specialist nurses had undertaken a post-qualification degree course to honours level and were to become valuable members of a whole series of new multi-disciplinary teams within the hospital and community setting [5]. Pre-assessment was a 'natural' area on which some of these specialists could focus. In 2001 the Association of Anaesthetists of Great Britain and Ireland (AAGBI) published its views on the role of the anaesthetist in pre-operative assessment [6]. The booklet focussed on the final arbiter of fitness being the anaesthetist present on the day of surgery but stressed the value of team working and effective preoperative screening by trained health professionals. The whole focus of this work is to provide a better service to patients and the appendices give useful proforma for basic screening that can be modified to suit local circumstances. The Department of Health in the UK published its Operational Guide on Day Surgery in 2002 and stated that it planned to have 75% of all elective surgery performed in the day stay setting by some future date [7]. This would obviously require very high standards of preoperative assessment and planning; so in the same year the Modernisation Agency published guidance on the subject [8]. This latter document should be mandatory reading for all those wishing to develop or extend their practice in this area and it includes in its Appendix A some useful guidelines for selecting patients for day surgery. A National Programme Lead was appointed together with a large number of local clinical champions across the whole of the UK to take this work forward.

This type of work had been occurring in North America and Australia for some time and it was relatively easy to adapt their experience to the UK model [9, 10, 11]. Kitts [9] had defined three primary goals of preoperative assessment: first, acquiring the pertinent medical information, consultations and laboratory testing necessary to assess peri-operative risk; second, optimising of the patient's medical condition and developing an appropriate peri-operative care-plan and third, educating the patient about choices in anaesthesia, intra-operative care and postoperative management to allay anxiety. It is interesting to see how these match those stated by Lee some 40 years previously!

This type of practice led to the development by some units of specific Integrated Care Pathways (ICPs) for day surgery. The ICP is defined as a tool which is locally agreed by the multidisciplinary team and is based on guidelines and evidence for a specific group of patients. It forms all or part of the clinical record and permits documentation of care provided and facilitates evaluations of outcome and effective audit cycles. The British Association of Day Surgery (BADS) has published a useful booklet on this topic [12].

Textbooks started to appear on the subject of preoperative assessment but these must be evaluated carefully as the social, medical and administrative systems in the country of origin may be very different from those locally [13]. There are detailed documents available to help train nursing staff and other health care professionals to set up and run preoperative assessment units and these prevent individual units re-inventing the wheel on a regular basis. The booklet and CD ROM produced by the University of Southampton [14] is particularly comprehensive and provides invaluable information for both experienced and novice practitioners.

CURRENT PRACTICE

Many, if not most, day surgery units in the UK now have anaesthesia led, nurse run preoperative assessment units and this model is spreading out across Europe. There is usually some form of initial screening which may be done face-to-face or by telephone followed by more detailed assessment where indicated. The AAGBI published its revised edition booklet on day surgery in 2005 [15]. This devotes a substantial part of the text to preoperative assessment and has a comprehensive reference list and examples of possible screening tools for general use. One of the constant challenges in urban practice is the multi-cultural society which exists in most cities and towns across Europe. The need to provide translation or advocacy services is increasing on an annual basis and the translation of relevant booklets and leaflets into as many as 40 or 50 languages is expensive and time consuming.

It is crucial to devote enough time to the evaluation of social aspects of care as well as just the medical ones. It is pointless to have a patient in an optimum health state without any means to get home after their procedure and with no help or telephone facilities at that home once they are there! Social assessments are often difficult and time consuming but are vital in the provision of a high standard of care. It is apparent that there are no absolute rules for such evaluation processes and each country, hospital and unit must develop a local system that is appropriate for their needs.

Who is to benefit from day stay care remains a constant source of debate. It is imperative that no one is excluded for reasons of youth, old age, physical or mental limitation or any other discriminatory reason. It is important to realise that there is little conformity on almost any aspect of this work within any one country let alone across Europe. Every anaesthetist seems to be making individual decisions that are often based on their own personal experience despite the increasing number of published regional or even national guidelines. For example the National Institute for Health and Clinical Excellence (NICE) has published a useful booklet on the appropriate haematological, radiological and other tests to be performed on patients preoperatively depending on their age, ASA status and complexity of the proposed surgery [16]. The booklet has been widely disseminated across the UK but is rarely adhered to by most units.

The topic constantly invites publication of detailed aspects of the process [17] and this is an area of continuing development in both research and audit. This will undoubtedly continue as managers are forced to apply more and more stringent cost saving directives on clinicians. In this area of increasing financial constraint it is vital that appropriate staffing and facilities are provided for the pre-assessment process. Fully trained staff need continuing development which must be funded and encouraged. The assessment clinic should have appropriate dedicated clerical, secretarial and portering staff.

As might be expected, there is now a Society in the UK focussing on this work [18]. The Preoperative Association is for all healthcare professionals working in this field and it has held two national conferences in the UK that attracted delegates and speakers from all over the world. It facilitates a valuable network for the exchange of ideas and good practice as well as more detailed guidance and protocols. Its membership already encompasses surgeons, anaesthetists, nurses, pharmacists, physicians and general practitioners.

TEACHING AND RESEARCH

The preoperative assessment clinic is a valuable area for teaching and research. Medical students, under direct supervision, can learn to assess myriads of patients; they can take histories, examine patients and begin to understand the decision processes of who to treat and who to investigate. The same will apply to all other health care professions who can all learn basic communication skills as well as those relevant to their speciality.

Most research relating to day stay practice tends to be rather basic audit and often only the first part of the audit cycle is completed, namely that of data collection. There is a great need for more research in this area. We need to know what are the optimum methods for the management of a wide variety of procedures. Is regional or local anaesthesia better than general anaesthesia for specific operations? What technique is most suitable for each surgical procedure? How can we prevent preoperative anxiety and post operative morbidity? Who is best suited to give the anaesthetic or perform the surgery? The questions are endless and few are being addressed at this time.

THE FUTURE

All day stay facilities will develop effective processes to facilitate their work. Initial patient screening may be done by the patient's general practitioner, by a surgeon, a nurse or an anaesthetist. The person's background is not important; their training is vital. Once that primary screening process is complete there will be a protocol driven set of relevant investigations to be completed, these will then need to be reviewed. At this stage specific interventions may be appropriate to improve the patient's health and these should be instigated. In the future a pan-European health record may be available either electronically on the internet. This will prevent the constant repetition of screening, testing and searching for past records that so bedevils current practice.

Time must be allowed for a full explanation of the pathway that the patient is about to undertake so that all aspects of their hospital visit, peri-operative care, discharge and then follow-up are fully understood. This is especially true for patients with different mother tongues. Translation services through internet facilities may expedite much of this work in the future.

The final assessment for suitability for anaesthesia will always rest with the individual anaesthetist providing the care. However it is likely that consensus within departments, countries and even the whole of Europe will be much more forthcoming so that a more even process will emerge.

Some patients will always be cancelled on the day due to acute or unanticipated clinical or social problems. Ideally this will only occur before the patient leaves their home. Alternative patients can be admitted at short notice to avoid wasted operating time.

Every unit will have the ability to review its complication rates as well as admission rates, cancellations and long term problems. This information will be available for the patients too so that they can make better informed consent judgements before they undergo surgery and anaesthesia. In the future, day stay care will undoubtedly be the normal process and in patient stay rare for the majority of surgical procedures. It is crucial that the process of pre-operative assessment is timely, effective and efficient so that patients receive a better service and experience better care.

It is inevitable that as we develop robust systems to provide high quality assessment for day stay cases then this will become normal for inpatients too. It is ridiculous to imagine that there should be some difference in the quality of care provided to either group so in the very near future all of this day surgery practice will be applicable to all inpatient surgery.

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*A large number of documents referenced in this paper can be found on the webpage of BADS:
www.bads.co.uk*