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4

Basic surgical skills

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A team approach is essential to the practice of successful surgery. Good surgery begins before any incision is made with consideration of the type of equipment needed and the incision to be used to ensure optimum access. Although the repertoire of tools available to the surgeon has increased, the attainment of safe and efficient surgical technique still depends on a comprehensive knowledge of the basic surgical skills outlined in this chapter. These include proficiency in knot tying, instrument handling, suturing, haemostasis and tissue dissection. Surgery should 'flow', using the simplest and safest way to achieve the operative goal. As the duration of training shortens, the importance of teaching good surgical technique by example and direct supervision has never been greater

Key words: basic surgical skills; gynaecological surgery; skills training; surgical haemostasis.

THEATRE ETIQUETTE

Writing in the preface to the ninth edition of *Bonney's Gynaecological Surgery*, the book's editor, John Monaghan, advocates that 'operations should flow with a style and natural pace, rather like a well choreographed dance'. For this to be achieved, there must be an acknowledgement that the practice of successful surgery is the product of a team approach. As well as the lead surgeon, the team includes anaesthetists, surgical assistants, ODAs, theatre nurses, ward nurses and porters. The astute surgeon needs to engender such bonding as is required to ensure a belief in the common task. It is therefore axiomatic that there is a need to lead by example and to instil the correct working atmosphere in the operating theatre. Whilst there is a requirement to try to maintain the highest possible surgical standards, and in this respect for the surgeon to make his or her personal preferences known, it must be appreciated that individuals, instruments, equipment and even elevators are capable of malfunction. In such frustrating circumstances, shows of petulance are rarely productive and do nothing for team morale. If the problem is a recurring one, however, it is incumbent on the surgeon

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to insist that it is rectified to ensure that the highest standards are indeed maintained at every operating list.

Working every operating list with the same experienced scrub nurse/sister, who knows your surgical style and idiosyncrasies, is a rare event for many surgeons these days. It is, however, a privilege to work with someone who is poised, watching the surgery, armed with a selection of instruments, and who places the appropriate instrument firmly in your palm—sometimes without you needing to ask for it, and certainly without you having to look up from the operative field. When surgery flows with this sort of teamwork, it can be a truly beautiful—even emotional—thing to observe. The reality, however, is that different personnel are involved in different operating lists and the surgery is only able to flow in an uninterrupted fashion if the surgeon plans ahead. It is always worth checking that instruments and sutures of choice are available before the operation starts. Intraoperatively, it is worth telling the scrub nurse a minute or two in advance what instruments/sutures/drains, etc. are to be needed imminently. It is only with this degree of forward planning that surgery will fulfil the choreographic requirements alluded to in the opening sentence of this chapter.

An integral part of the senior surgeon's responsibility in the operating theatre is to teach, and teach constantly; this is more important now than ever. The concept of a consultant-based, rather than a consultant-led, service has inevitably led to doctors in training performing fewer operations themselves. This, combined with the fact that the duration of training is now shorter than it was, is a potential recipe for the production of undertrained inexperienced surgeons. Given that this is the case, clearly it is of equal importance for doctors in training to avail themselves of every opportunity to watch, assist and operate under supervision. It is a great privilege during the training years to be able to watch a variety of senior surgeons operate. There are enormous variations in style, technique and even demeanour that need to be appreciated. This provides the trainee surgeon with a great opportunity to pick up invaluable hints and tips and to select various aspects of surgical technique that can then be incorporated into their own surgical routines, which should be a composite of various learned skills and which is then open to further refinement as experience develops.

The attainment of safe, efficient, reproducible surgical technique is predicated on a comprehensive knowledge of basic surgical skills, which this chapter is designed to address.

SURGICAL KNOTS

A basic knowledge of surgical knot options and the acquirement of the dexterity necessary to tie them is a fundamental requisite at the start of surgical training. Knot-tying techniques by the two-handed method, the single-handed method and with the use of instruments, should be practised religiously until they can be performed both effectively and rapidly, with almost automatic ease. A wide variety of knot types is not required but the basic principles of tying a slip knot, a granny knot and a reef knot are essential, as is the knowledge of how to use variations and combinations of these knots in different surgical situations and with different suture materials.

Catgut is no longer used as a suture material and with most modern suture materials there is a need to achieve the required knot placement and tension without any slippage after the first throw. To achieve this, it is important that knots are set down as square knots. This requires the second half hitch to be made in the opposite direction to