The role of the surgeon in the intensive care unit

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Trauma management and postoperative care require active input from surgeons in the intensive care unit, yet there appears to be diminishing surgical involvement in the care of the critically ill. A formal postgraduate training programme in intensive care medicine for several disciplines has been introduced in the Netherlands, which may lead to greater participation of surgeons in intensive care medicine.

Intensive care medicine is a relatively new speciality. Instead of being a specialist, the intensivist is more like a generalist treating patients from various disciplines with a final common pathway of multiorgan failure (King and Sibbald, 1988). In most countries intensive care medicine is not a primary speciality. In the Netherlands, it is accessible as a supra-speciality with dual accreditation after a training period, in addition to the completion of a base speciality such as anaesthesia, internal medicine, surgery or paediatrics. In other countries (such as the USA), it is a subspeciality and training is available through a base speciality without a national common training programme (Bion et al, 1998).

The discipline that the intensivist comes from is of little relevance if their training has been adequate (Fisher, 1997). The Society of Critical Care Medicine has defined the role of an intensivist:

> **'the qualified critical care practitioner is physically available without competing obligations and possesses knowledge, skill, judgement, attitude and compassion acquired through training experience and focus to achieve the best outcome for patients suffering from critical illness and injury (Anonymous, 1994).'**

Concern has been expressed that surgeons abdicate the traditional role of providing preoperative and postoperative care of the intensive care patient (Holcroft, 1990; Trask and Faber, 1990). This trend is an international one. To approach the problem it is important to consider the factors that influence the involvement of the surgeon in the intensive care unit (ICU) and to decide as a discipline what role surgeons want in the future (Rutherford and Meyer, 1992).

The aim of the Dutch College of Surgeons is to have at least one surgeon-intensivist per hospital, who will have an equal responsibility for the care of intensive care patients (Bijnen, 1997).

INTENSIVE CARE TRAINING

Because of the rapid development and increasing complexity of intensive care medicine, the development of a formal national training programme was considered necessary in the Netherlands.

Therefore, in 1991 an interspeciality collaboration of surgeons, doctors of internal medicine and anaesthetists resulted in the formation of a general intensivists committee (GIC). The goal of the GIC is to establish a multidisciplinary approach to intensive care training and practice. A common core curriculum was introduced in 1992 for doctors of internal medicine and in 1996 for surgeons.

Training is accessible to most of the major specialities (anaesthesia, surgery, internal medicine, pulmonary medicine, neurology and cardiology) during or after completion of base speciality training. Specialist colleges are responsible for exact training programmes and eventual accreditation.

DEFINING THE SURGEON–INTENSIVIST

The Dutch College of Surgeons has defined the role and core competencies of the surgeon-intensivist. The scope of intensive care medicine within the field of surgery is the complex surgical patient with near or established vital organ dysfunction. Expertise is required in diagnosis and treatment of serious infections and related problems. Insight in the complete multidisciplinary treatment of these patients is necessary as well as the skills required for primary intervention for acute respiratory and circulatory failure.

TRAINING PROGRAMME

The scientific board of the College of Surgeons has defined a structured training programme for

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intensive care medicine. Similar but not identical programmes exist for other specialities, but the total duration of intensive care training is 24 months for all specialities. A proportion of this period (to a maximum of 1 year) can be taken from the surgical training period and allocated to the intensive care programme. Training must take place in a qualified teaching centre. These centres have an ICU of a certain standard which is run by a multidisciplinary medical team. This means that the head of the intensive care team can be of a different discipline to the trainee.

Participation in the European Diploma of Intensive Care Medicine offered by the European Society of Intensive Care Medicine, consisting of a written and an oral examination, is mandatory, although it is not necessary to pass this examination to obtain registration as an intensivist. Research in intensive care medicine, resulting in a publication or an oral presentation, is obligatory.

At the start of the intensive care training, a curriculum proposal is sent to the GIC for approval. A total of 2 years intensive care training is necessary, with a reduction of a maximum of 1 year for time spent in intensive care during base speciality training. These periods should preferably be without interruption. Theoretical education consists of a national curriculum of 18 themes, run for 1 day each month. Surgical skills have to be maintained during the intensive care training. To achieve this some time, e.g. 1 day a week, can be spent on surgical activities. This time will be added to the total training period. The surgical trainee is expected to perform the necessary surgical interventions for intensive care patients, e.g. relaparotomies and tracheotomies. The accreditation in intensive care medicine is granted for 5 years.

The intensive care training for surgeons has existed since 1995, and a few years earlier for doctors of internal medicine and anaesthetists.

As a transitional regulation up to 1994, it was possible to get an intensive care accreditation retrospectively, with proof of substantial clinical experience in intensive care medicine.

In the beginning of 1999 457 specialist-intensivists were registered in the Netherlands, of whom 50 were surgeons. One surgeon has completed the intensive care training since then. At the moment, two surgeons out of 25 fellows are following the intensive care training.

DISCUSSION

Most patients on an adult ICU are surgical patients; their care is the responsibility of the surgeon. In order to diagnose and treat complications at an early stage and to give optimal care, full surgical presence in the ICU is necessary; involvement on a consultant basis is insufficient. The international trend, however, is a decreasing influence of surgeons in intensive care. Competing activities, lack of interest, and inadequate training and knowledge are factors which have a negative influence on the role of the surgeon in the ICU (Holcroft, 1990; Trask and Faber, 1990; Fakhry et al, 1991). Concern is raised that the care of the sickest postoperative patients is turned over to other physicians (Holcroft, 1990). Fellowship training is an important means of increasing the role of the surgeon in the ICU.

The 50 registered surgeon-intensivists make up 10% of the total number of intensivists in the Netherlands. The small number of surgeons who have taken the intensive care training until now means that this percentage will decrease in the future. Making intensive care training more attractive for surgeons might be the solution to this problem. This can be achieved by reducing the duration of training or starting training during the base speciality. It is also important to give adequate opportunity for maintaining surgical skills. After registration, full-time involvement in intensive care is not really an option for surgeons who want to continue practising their base speciality. More important is full availability during the time attending the ICU with no other simultaneous activities and a minimum of 50% time commitment to the ICU. As the phenomenon of burnout is especially common in intensive care physicians (Guntupalli and Fromm, 1996), this is probably preferable in the long term. HM

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KEY POINTS

- A national postgraduate curriculum for training in intensive care medicine has recently been introduced in the Netherlands.
- Intensive care medicine is an integral aspect of surgical practice.
- The training in the Netherlands is multidisciplinary, accreditation is dual with a supra-speciality status.