ICU MANAGEMENT & PRACTICE

ICU Volume 4 - Issue 2 - October 2004 - Trends

# An Interview with Greet Van Den Berghe on Management in Intensive Care

**Interviewee**

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**Summary**

*Professor of Medicine at the Leuven University and Head of the Department of Intensive Care Medicine at UZ Gasthuisberg, Greet Van den Berghe is a proponent of evidence-based clinical and organizational decision making in intensive care.*

**UZ Gasthuisberg is one of five sites belonging to the largest university hospital complex (1900 beds) in Belgium, Universitaire Ziekenhuizen Leuven, currently celebrating its 75th year. Since her appointment as head of the Surgical Intensive Care Unit (ICU) two years ago, Professor Van den Berghe has applied evidence-based decision making to clinical and organizational tasks, and has recently gained world recognition for the results of her work on the beneficial effects of intensive insulin therapy in ICU, which showed an almost 50% reduction in the mortality rate of ICU patients. Professor Van den Berghe's philosophy is to question traditional protocols and treatments and test potential alternatives to improve patient care. With 10 senior physicians-intensivists, 21 junior physicians in training, 4 research fellows, and 170 nursing staff, her department has 56 beds all equipped for patients on mechanical ventilation, an annual patient turnover of around 2500, and a nurse to patient ratio of 1:2.**

**What are the Main Directives of Your Role?**

I set targets for myself very specifically in equally important areas: top quality patient care, successful scientific research and productive management of the department with all its administrative duties.

Top level clinical care must be the target. This means we should at least try to maintain the high level of care our ICU has provided for many years and, if possible, improve it further through research, quality education and quality personnel. Intensive care requires perfectionism. Clinical mistakes by intensive care physicians mean life and death risks; it's a challenge to make people in training aware of this without frightening them away, but I believe it's

morally and ethically essential.

Intensive care is a relatively young speciality with many therapeutic principles not based on scientific evidence being applied to daily management of patient care. Following the boom in technical possibilities with monitoring devices, mechanical ventilators, heart and other organ support systems over the past three decades, we've simply continued doing the same things without in depth questioning and, consequently, with no further improvement to the mortality rate. I believe that our task now is to provide the evidence for top level patient care. We need to perform high quality clinical research as the basis for a critical rethinking of our daily practice to improve outcome of ICU patients. Here at the ICU of Leuven University, we have had the exciting experience of making an important discovery that had immediate implications for patient recovery. A high blood concentration of glucose as a result of the stress response was generally assumed to be a beneficial adaptation that was helping the body to survive. Our trial studied the effect of controlling blood sugar levels to normal and this reduced mortality by almost 50% [1]. Applying the same methodology to routine clinical care, we have targeted ourselves to achieve progress in patient care through the results of scientific research. For example, the traditional assumption is that weaning cardiac surgery patients off ventilators earlier accelerates patient

flow-through. We found that this assumption was incorrect and that other problems are actually more important and should be targeted first in order to achieve this goal of moving patients out of intensive care sooner [2].

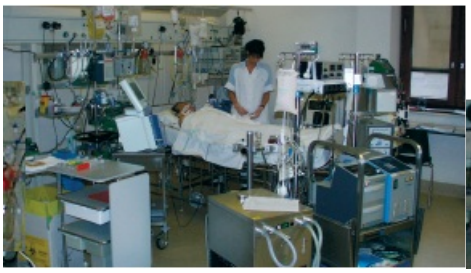
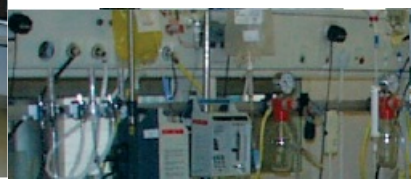
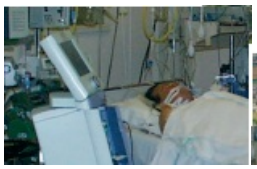
Besides this clinically oriented research, our group is active in more fundamental research which helps us to understand the underlying mechanisms of our clinical discoveries. I'm planning to have all the junior staff involved in research, either clinical or basic research, so that they appreciate the importance of looking critically at what they are doing in their every day practice. I am strongly convinced that this makes them better doctors. There are many practices that need careful reconsideration and high quality clinical trials are mandatory to help us improve patient care. One obstacle, however, is obtaining the necessary funding, which is difficult and time consuming because the competition with more basic research is tough. This brings me to the third part of my work, the managerial or administrativ part, which covers dealing with financing issues and personnel organisation, for the clinical department, research group and the laboratory.

**How Would a Typical Day Proceed?**

8.30 am the physicians do their initial rounds during which briefing takes place and plans for urgent patient discharges

are made We come together at 9.00 am with all the physicians and responsible head nurses for a clinical d e c i s i o n

m a k i n g m e e t i n g . Decisions r e q u i r e d immediately or throughout the day for each patient are presented by the senior physician responsible and decided on collectively. The physicians then return to their bedside tasks, which include two daily rounds of all patients. I then work on management tasks and may have clinical management or research meetings. I see the staff regularly throughout the day, and once a week we have a staff meeting with the whole group. I also meet once a week with the head nurses. Physicians work 12 hour shifts for 24 hour cover. One senior physician and one back-up are on duty each night, together with 4 junior physicians. During the day 8 junior physicians are taking care of the 56 patients and they are supervised by 8 senior intensivists. I take part in the night and weekend duties and regularly discuss specific problems and individual patients with the junior physicians, which I thoroughly enjoy.


I meet with my research group at least once a week on a more formal basis for a full discussion of ongoing projects and regularly in between to discuss exciting new findings. Sharing the thrill of new discoveries with the researchers and clinical colleagues is so rewarding. My teaching tasks vary and add to the variety in my daily schedule. Adding up all these tasks explains why my "normal" day never ends at a "normal" time …

**Describe Two Extreme Tasks in Your Role**

I find the struggle with financing applications upstream to the hospital management tough. It's really a battle sometimes to fight for the number of people one needs to guarantee safety for patients, or to communicate the impact of particular problems. A contrasting aspect is being involved with very sick patients, needing to listen to families and to nurses who have the psychological pressure of dealing with life and death all the time. Sometimes it's quite a challenge to switch from the high adrenalin fighting role, to the listening, understanding role.

**What has been the Most Satisfying Experience as an ICU Manager?**

Surgical intensive care is such a rewarding speciality as patients can be extremely sick and at high risk of death, but our discipline is able to turn the odds round, so that these sick patients can indeed return to a healthy, normal life. This is quite different, I think, from medical intensive care, where patients are often suffering from an acute insult that accompanies or ensues from a chronic, progressive underlying disease. The chances of these patients returning to a normal healthy life are often much smaller. It's very rewarding in the role of intensivists on a surgical ICU to save patients' lives by working together as a team. Seeing that this actually works on a daily basis is a very satisfying experience.

**What has been the Most Difficult Task as an ICU Manager?**

Some excellent medical and nursing staff can be affected personally by this type of stressful work; the fast pace, dealing with life and death all the time and yet needing to be practical. It's hard seeing this happening. Trying to protect and help these motivated team members by advising them correctly is a challenge.

**What Training, Contacts and Support do You have for Your Work?**

I didn't have any specific management training, so I guess I had to go through my learning curve…. I receive good

administrative support from the division level. The surgical and medical intensive care departments, the emergency department and the operating theatre in our hospital are structured into one "acute care" division. The clinical division

administrator, who at this moment is a physician who trained as an intensivist in our department, is familiar with the difficulties of acute medicine and liaises perfectly between hospital management and our department. This system has helped, and will do so even more in the future, to improve communication within the larger-scale setting of our hospital. Many managerial decisions, for example on equipment purchase for uniformity across units, difficulties with patient flowthrough between units, requests to hospital management for staffing or financial investment are all dealt with at this level. Externally, I meet with other heads of intensive care units from university hospitals in Belgium. We compare data and discuss topics such as how to formulate our needs to government and health care financing systems, to address problems we anticipate.

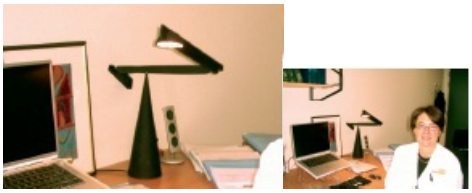
**What Clinical Management Issues are You Dealing with?**

We have more requests for patient admissions than we have beds available. Besides admitting patients from the emergency department and patients suffering from complications after surgery, we admit from an active solid organ transplantation program (heart, heart-lung, lung and liver) and a cardiac surgery program that takes on patients who have often been refused surgery elsewhere. The success of these programs evidently depends in part on the quality of the service provided by our ICU. Combining admissions from an active, scheduled surgical program with an unpredictable number of emergencies is often problematic with a fixed number of ICU beds, and decisions on priorities are often imposed. Indeed, it's difficult to predict patient length of stay, but the surgery team wants to operate every day, so the number of available beds needs to be specified, and this may vary. It's difficult to negotiate this with surgeons, who, for obvious reasons, don't like a "No" to their request for more beds… "Triage issues", the "who should be admitted first?" type questions grow more complicated when taking into account the income that cardiac surgery brings to the hospital.

We take end of life care very seriously in our intensive care unit. When a patient dies, this usually only happens after we have discussed in a group and agreed that continuing intensive care will no longer improve the patient's chances of survival and hence has become "futile". When this is the case, we decide on therapy withdrawal. At least three senior physicians need to agree on such a decision, in accordance with the patient's referring physician and the nursing team. Every day, there's a patient that needs this discussion and nobody can decide this alone. Junior physicians join these meetings to learn how difficult this aspect of intensive care is.

**What Sort of Financial Tasks Prove Challenging?**

I'm responsible for our profit and loss account and financial management issues take too much of my time, at least in my view. I'm lucky to be able to count on my head nurses among whom there is one who is particularly interested in the government specifications on billing and costs etc. This type of support with the financial administration from within the team is really helpful and very much appreciated. Keeping an a c t i v e r e s e a r c h group going and reaching the high standards of international top-level research also requires finding the necessary budgets externally, or negotiating with the hospital management to re-invest profit into research. Recently, our hospital management has shown more interest in this concept and there is now a competitive system for different departments to submit research proposals.



The highest cost in intensive care is nursing. We've recently performed a study aiming to develop an adequate, objective tool to assess nurse workload. This is mandatory in order to optimally allocate the scarce nursing staff within the different ICUs in our hospital. Optimising this tool will help us in decision making regarding the level of patient care and nurse allocation.

**How do You Manage Your Personnel?**

As a manager of an ICU, one has to be able to motivate a large group of people to reach perfectionism in their work under very difficult circumstances. Indeed, an ICU must function as a team with one collective and primary goal: helping the sickest patients in their struggle for survival at a time when they depend entirely on us as caregivers.

One example of an intervention that helped to improve teamwork was the delegation of handling the admission requests. Senior personnel are appointed admitters of the day or week, in rotation. Everyone now understands the speed required for decision making and the practical and ethical difficulties involved. The person responsible for admissions discusses this in the daily meetings and we take decisions as a group. Making everyone feel the responsibility of this triage task has improved patient flow-through substantially. Similar team efforts contribute to financial administration, designing the department teaching curriculum, shift rotas and researching equipment proposals. I also try to allocate more responsibilities to the nursing team, particularly for tasks that I know they can do much better than physicians can. I give them public recognition for this whenever I have the opportunity to do so and in particular at international symposia. The insulin treatment for reducing mortality was handled by nurses; this is only one of their important contributions to critical care. Recording routine protocols on line has been another main target, so that junior physicians can check on how something is usually done and then discuss potential deviations with their supervisors. Standard protocols also allow nursing staff to contribute more independently.

Recruiting good medical staff is difficult. We have a queue of young applicants, but identifying those who excel in clinical work, teaching and research is not easy. We've therefore introduced a new level of temporary staff between the junior and senior members, who gain experience while they are evaluated on the job.

The best thing for the manager is to see the members of the team happy and successful in their work. They know clearly what their tasks are and what is expected of them. More importantly, perhaps, is that the team members know that their original contributions to the organisation and their efforts to improve patient care, teaching and/or research are highly appreciated. Perhaps this explains why turnover for nursing staff and physicians in our department is low compared with other units in Belgium. I think that people like to work here. So I think we're doing pretty well actually...

Thank you for this insight into the management of your department

Published on : Fri, 12 Feb 2010