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Step Down Wards: Advantages and Disadvantages

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Professor Burchardi shares his views on step down wards with ICU Management readers.

Step down wards are care units between the level of an intensive care unit and the normal ward. Various types are possible: the intermediate care unit (IMC), post operative monitoring (recovery), but also units for coronary care, non-invasive ventilation, long-term ventilation etc.

I will restrict my comments to only the IMC, which is closely linked (as the name indicates) to an intensive care unit (ICU); its purpose is the pre and post intensive care (or instead of intensive care). So it offers a buffer capacity for the ICU – an important way to relieve the pressure on precious and costly ICU beds. However, it is difficult to describe exactly the criteria where intermediate care ends and intensive care begins – presumably this depends greatly on the given structure of the hospital (for example, the quality of care in the normal wards). The most simple criteria could be any actual treatment of life-threatening vital functions, (for example, mechanical ventilation), which by definition is the privilege of intensive care medicine.

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In an editorial, Professor J.-L. Vincent and I recommended a mixed model, where within the same unit intensive care and intermediate care beds are jointly available (Vincent and Burchardi 1999). Some of the important advantages of such a mixed structure are:

- (a) same, experienced nursing staff, with high attention to potential medical problems;
- (b) release from the high work load of nursing exclusively critically ill patients;
- (c) no lack of information, if the patient suddenly needs intensive care;
- (d) no transport to an ICU located elsewhere;
- (e) IMC beds as buffer capacity for the ICU beds.

This last point is most important: the precious, most costly ICU beds can be managed much more adequately and efficiently if there is a buffer with IMC beds. The relation between ICU beds and IMC beds in such a unit should be variable and adapted to the actual needs.

We have used such a mixed model in an 18 bed surgical ICU. However, from our practical experiences some important disadvantages transpired. At that time, hospital refunding in Germany was based on the length of stay (in the hospital as well as in the ICU); furthermore, an ICU occupation rate of 95% was regarded as the target by administration. Consequently, the IMC beds were only used after all the ICU beds had been filled. Thus, the ICU/IMC beds were not always used appropriately. Furthermore, laboratory tests and x-rays (and possibly other tests) were presumably not used as restrictively as they should have been in intermediate care patients. Of course, treatment was adapted to the individual patient's need. So, the mixed model requires a very strict control of the level of monitoring and diagnostic measures. Such differentiation cannot be left at the discretion of an individual; it requires precisely defined standard operating procedures (SOPs).

Recently, a restructuring process for ICUs in large teaching hospitals in Germany has begun. As intensive care medicine in Germany has a multidisciplinary access, there were often several different, specialty-related ICUs in university hospitals, such as for surgery, cardiac surgery, neurosurgery, neurology, cardiology etc. For reasons of economy, standardization and quality, these will now be brought together in some hospitals, for example to a centre for surgical intensive care medicine, under the management of a full-time intensivist (often an anaesthesiologist). As a consequence, there is now a violent debate between the various specialties concerning the distribution of power and competence (Burchardi 2005).

In large university hospitals with more than 1000 beds, such centres for intensive care medicine become rather large, sometimes with up to 40

beds or more. With these dimensions a mixed model which also incorporates intermediate care patients, will not be realistic. In future such hospitals will require a great number of step down beds, which will need to be kept apart from the ICU. In my view, it will then be rational to run such IMC units completely separately with a different staff and management. It may also be a good idea, not necessarily for political reasons alone, to keep such step down units specialty-related and to let these specialties manage their own IMC units. This will allow these specialties the opportunity to retain influence, control over bed capacity, control and competence of patient care, and some teaching capacity.

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