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Ill, but not ill enough

EDITORIAL

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Intermediate care units in hospitals are important for the treatment and care of seriously ill patients who do not need full intensive-care monitoring, but who are too ill to be cared for in an ordinary ward.

Any doctor on duty in a Norwegian hospital that treats seriously ill patients is familiar with the challenge of deciding who needs and who will benefit from hospitalisation in an intensive or intermediate care unit, and finding beds for these patients. Knowledge of epidemiological factors is important for the planning of treatment capacity in these units, and familiarity with prognostic factors is crucial to ensure optimal treatment for individual patients.

In the article *Epidemiology and prognoses in a medical intermediate care unit,* Morland and co-authors present a useful description of internal medicine conditions in an intermediate care unit at Akershus University Hospital (1). Pulmonary and infectious diseases were the most frequent cause of hospitalisation during the year in which the study was conducted. The highest mortality was among older patients, patients with infections or comorbid conditions, and patients who had been transferred to the intermediate care unit from another ward.

The study showed that the patients in an intermediate care unit at a large university hospital had the same serious diseases as patients in intensive care units in local hospitals. These findings are consistent with data from the Norwegian intensive care registry (2) and also corroborate the impression given by studies undertaken at Haukeland University Hospital (3, 4). However, data from these studies must always be assessed in light of local conditions, as

different hospitals organise intermediate care units and intensive care units differently (2, 5, 6). At Akershus University Hospital, most cardiac patients in need of close follow-up are placed in a separate intermediate care unit, which explains the low proportion of cardiovascular issues recorded in the study from that hospital.

Systematic registration of the causes of hospitalisation, the course of illness and prognosis, as undertaken by Morland and colleagues, is essential to improve the quality of Norwegian intermediate care units. The high mortality rate for infectious diseases in an intermediate care unit underpins the Norwegian Directorate of Health's focus on sepsis in the form of nationwide inspections in recent years. These inspections have revealed a significant potential for improvement in the treatment of sepsis in Norwegian hospitals (7). The fact that patients transferred from other departments had higher mortality than those admitted to the intermediate care unit directly from the Emergency Department also supports the Directorate of Health's conclusion that signs of organ failure are not detected early enough in Norwegian hospital departments.

The intermediate care unit in the study by Morland and colleagues had specialists in internal medicine as well as anaesthetists on the unit, and the authors believed that this was crucial in enabling the unit to achieve good treatment results (1). In contrast to many other European countries, intensive care departments in large hospitals in the Nordic countries generally have anaesthetists on their permanent staff (2). As a result, anaesthetists often have the main responsibility for treatment of multiple organ failure, even though they may need support from other specialties, such as internal medicine. Good coordination between anaesthetists and specialists in internal medicine is essential when treating the most complex internal medicine cases. This is particularly vital for patients with the poorest prognosis when decisions have to be made regarding which treatment should be initiated, and the level of treatment to be undertaken.

Experience from intermediate and intensive care units is essential for specialty registrars in both internal medicine and anaesthesiology. For specialty registrars in internal medicine, training in the treatment of organ failure from specialists in anaesthesiology is crucial, while for specialty registrars in anaesthesiology, it is essential to acquire good knowledge of more complex internal medicine disorders.

Knowledge and treatment of organ failure is also essential for management of patients in general wards. As Morland and colleagues indicate, it is especially important to pay attention to the risk of overtreatment. This applies to an ever-greater extent given the increasing age of the population (8, 9). When is it correct to provide treatment, and when would it be unethical? This question is not always easy to answer and must be assessed on an individual basis for each patient.

It is scarcely surprising that the results indicate that medical intermediate care units can reduce pressure on intensive care units. Patients who are too ill to be accommodated in general wards, but do not need intensive treatment, are sometimes transferred to the intensive care unit in the absence of an

alternative. Medical intermediate care units fulfil an important role in such situations. Patients can also be moved from intensive care units earlier, if they can be followed up in an intermediate care unit.

The organisation of intermediate care units will vary based on the size of the hospital and local conditions. Adapting the number of positions for doctors and nurses in these units in relation to the best use of resources in a medical ward will always constitute a principle challenge.

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