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# Priority-setting in the patients' last years of life

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## EDITORIAL

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## **Hospital admissions increase the closer we get to the end of life. Should we give a lower or higher priority to the treatment of patients in their last years of life than we do today?**

Elstad and Reinertsen's study of hospital admission rates in the last years of life confirms earlier research that shows a rise in the use of health care services the closer we get to the end of life [\(1\)](#). Most people will think that this is how it should be. Nevertheless, the study raises two important questions: Is it reasonable that hospital admission rates towards the end of life are lower among the elderly than among younger groups of people? And should our priorities for treatment in the last years of life be changed?

Elstad and Reinertsen's study, now published in the Journal of the Norwegian Medical Association, looks at admissions to somatic hospitals among individuals between 56 and 95 years of age who died in 2011. They found that the number of admissions in the last three years of life was higher in the lower age groups than in the higher ones. The age group with the fewest admissions was the over 85s. Ageism is one possible explanation for this difference, but probably not the most important one (2). It is likely that the elderly, and especially the very oldest amongst them, clock up fewer hospital admissions towards the end of life because they receive treatment in nursing homes instead. Unfortunately, there are no good cost accounts, diagnosis statistics and productivity data of nursing care services. This is surprising, because the cost of municipal care services accounted for as much as NOK 100 billion in 2017, out of the total cost of NOK 342 billion incurred by the health service overall (3). In contrast, we have access to comprehensive records and considerable research pertaining to the cost of the specialist health service, which that same year amounted to NOK 137 billion, of which somatic hospitals accounted for approx. NOK 104 billion. One of the reasons why hospital admissions are less frequent among the elderly than among younger people in their last years of life may be a dwindling wish among patients for diagnostic interventions and treatment as they grow older. Furthermore, doctors must take account of the fact that diagnostic interventions and treatment of elderly patients may be less efficacious and may involve greater risks.

An alternative explanation for the age effect may be that today's elderly population belong to birth cohorts that demand and expect less of the public health service than those who were born later. Figures from the Tromsø Survey show that the 40–49 age group attend hospital outpatient clinics more frequently than those over 70, even though morbidity and mortality rates are far higher in the latter age group (4). In the future, such cohort effects may lead to a relatively large increase in the demand for healthcare services when today's middle-aged population enter a phase of life that is marked by high morbidity and mortality rates.

It may seem a bit of a paradox that we want better healthcare services and longer lives while we share a general concern about society's ability to fund increasing health and pension costs. If we 'translate' Elstad and Reinertsen's admission figures into resource use, we find that costs increase almost exponentially up to the time of death. Health care for people in their last year of life represents approximately 10 % of total costs to the public health service (5). In 2014, the average cancer patient cost the specialist health service approx. NOK 300 000 in their last year of life (6). If we assume that the Decision Forum for new health technologies is willing to pay NOK 750 000 per additional year of good-quality life (this is not an official figure), this means that the treatment received that year should prolong full-quality life by 4.8 months ( $300\,000/750\,000 = 0.4$  years = 4.8 months) if treatment effect is the principle priority-setting criterion. We doubt that the average effect is as big as that. Seen in isolation, the numbers may suggest that society spends too much on patients at the end of life.

When 8 % of all patients who die from cancer receive chemotherapy less than eight weeks before the time of death, there may be reason to ask if there is a certain degree of over-treatment (6). However, we should not forget that the patients are often seriously ill, that there is no way of knowing how long they may live for, and that there is generally no way of knowing how much the treatment may prolong life.

In contrast to the principles laid down in the white paper on propriety setting and the practice followed by the Decision Forum for new health technologies, research suggests that both patients and their relatives greatly value diagnostic intervention and treatment in the last years of life (7). The explanation is simply that hope, care and dignity are also important to people's appreciation of healthcare services. The critical drug assessments conducted by the Decision Forum for new health technologies should be widened to cover the entire health service. However, health care provision in the last years of life is not necessarily the right place to start when widening the critical gaze.

In 2016 there were 40 880 deaths in Norway, and the number of deaths per year is expected to rise by more than 15 % up to 2030 (8). This will necessarily involve an increased demand for health care, particularly if the middle-aged population's expectations of the health service remain at their present high level. It is also probable that we will see the introduction of new and costly diagnostic and treatment methods in the future. Given that the annual health service budget is currently growing at a rate of 1–3 % (3), the pressures of demand will increase unless counter measures are implemented. There are several such measures available. The Norwegian parliament, the Storting, can decide that some types of diagnostics and treatment should not be provided by the public health service. Another option is to increase the real growth of the health service budget. A third option would be to change the way we produce healthcare services – in other words, to continue increasing efficiency.

When balancing the national budget for both 2016 and 2017, the Storting reduced the originally proposed allocation to the specialist health service by simply assuming that the hospitals would increase their efficiency. Experience therefore suggests that the Norwegian legislative assembly will opt for increased efficiency in response to increased demand. This solution will mean that patients and health professionals alike can expect major challenges ahead.

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Publisert: 28 May 2018. Tidsskr Nor Legeforen. DOI: 10.4045/tidsskr.18.0389

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