

EDITORIAL



Overtreatment in end-of-life care: how can we do better?

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End-of-life care focuses on symptom relief and best possible quality of life (QoL). Thus, the purpose of examinations and treatments must consider QoL impact and consider the risk-benefit balance. However, frequent overtreatment in end-of-life patients has been shown in several studies [1–4]. Overtreatment is defined as a medical intervention that is unlikely to help a patient, that may potentially harm the patient without beneficial effects or is in opposition with the wish of the patient [5].

It is against this background that Szilcz and coauthors have evaluated new tools for better estimation of overtreatment [6]. The main purpose of the study was to evaluate previously proposed quality indicators for overtreatment and to investigate their applicability in national Swedish health registers. The second aim was to use these indicators to investigate the potential overtreatment of patients above age 65 years who died from cancer, i.e., solid tumors, in Sweden over a 3-year time period.

What can we learn? First, the authors present a list of 15 unique indicators for overtreatment that may be applied as indicators in clinical registries. However, almost half of these indicators suggested by previous authors were not feasible since there was a lack of proper methods to identify the variables in the register data and/or due to exclusion due to overlap with other indicators.

Second, the study suggests that more than one-third of patients above age 65 experience potential overtreatment. The extent of overtreatment seems to differ between tumor types with the highest prevalence in gastrointestinal (GI) and gynecological cancers.

Finally, an important finding that deserves to be highlighted was that 49% of all patients died in hospital and that patients generally spent one-third of the last month in life in hospital. Was this according to the wish of the patients? According to previous studies most people (50–87%) would like to die at home if possible [7–10]. To be able to do that the patient usually needs access to palliative home care as well as access to municipal care at home [10]. Above all, the patients and the relatives need to have been properly informed about the prognosis and have the possibility to make their own choice about hospital admissions and place of death, when possible.

The indicators developed and used in this study can of course be questioned from a clinical perspective. Some of the indicators used do not necessarily imply overtreatment – instead they may be adequate actions of symptom relief. One such indicator used was ‘surgical interventions’ the last month of life. This included ascites drainage and pleural drainage that often give effective symptom relief also in patients with short survival time. In cancer types leading to bowel obstruction a percutaneous endoscopic gastrostomy or naso-gastric tubes for relieving purposes (i.e., not for feeding) may be highly adequate also in the late parts of the disease trajectory. Gastrointestinal cancers and gynecological cancers, ovarian cancer in particular, have a high prevalence of bowel obstruction. In addition, these cancer types often lead to a need of parenteral nutrition and intravenous delivery of drugs due to impaired absorption from the gut. Thus, the high degree of overtreatment reported for these cancer types might be overestimated in the study. Notably, GI-cancer was excluded from the indicator ‘parenteral nutrition’, whereas ovarian cancer was not – although this type of cancer is probably the most common cancer type leading to bowel obstruction. Moreover, some of the medications listed as indicators for overtreatment can be given for the purpose of alleviating symptoms, even with a short expected survival time.

To answer the questions of treatment intentions and whether they are in alignment or opposition with the patient’s wishes, additional studies are needed, e.g., requirements for medical record reviews and prospective observational study designs.

Importantly, the indicators presented by Szilcz et al. provides an easy and cheap way to monitor and evaluate the quality of end-of-life care on a nation-wide level. Although some of the indicators might be somewhat ‘blunt’ in some cases they are still useful, and several important questions can be answered. For example, does a region with high accessibility to palliative care apply less overtreatment than those with low access to palliative care? Or has a region with high access to highly specialized healthcare more often overtreatment in end-of-life care than regions where healthcare resources are more limited? Or has a region with high access to palliative home care a higher prevalence of deaths at

home? The data provided in such studies could be used for the improvement of the care across regions and nations and evaluating the care over time.

But how should overtreatment be avoided? An important part of preventing overtreatment is to improve prognostication. However, it is often difficult to know when a patient is approaching death and prognostication in end-of-life care can be challenging. Even if there are many different tools available, the accuracy of the different methods may vary in different clinical settings [11–15].

Although prognostication is difficult it is perhaps even more difficult for healthcare professionals to accept the *consequences* of prognostication, i.e., to inform the patient and relatives about limited survival time. This means that the goal of the care has to be changed into a palliative care approach where symptom relief and maintained QoL is the overall aim. This is preferably performed by making a care plan together with the patients and his/her relatives. An important part of the care plan is to decide which actions that should and should not be taken when the patients deteriorate. Importantly, the patient should be able to choose how and in which way the time left should be spent. Should the time be spent by unnecessary investigations or distressing treatments and endless hours in the hospital – or should it be spent with the loved ones, in a peaceful surrounding with adequate access to palliative care? Still, for some patients the most prioritized thing to do is to have ‘tried everything possible’ when it comes to treatments and interventions – but at least it should be the patient’s choice and they should be well informed about the prognosis.

In conclusion, the study by Szilcz et al. defines potentially valuable tools for investigating overtreatment in cancer care. It also reminds us of the importance of considering the need for and impact of examinations and treatments we recommend to our patients. Is the recommendation considering a holistic patient perspective and is it in the best interests of the patient? Even in the absence of accurate prognostication of survival time – which might be difficult – there is still an easy way to reduce overtreatment: Ask the patient what he/she wants and which examinations and treatments he/she wishes to go through and for what purpose. Just asking these questions somewhat more often can make a major difference and has the potential to reduce overtreatment in future end-of-life cancer care.

Disclosure statement

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