

EDITORIAL



Timely treatment initiation; a reminder about efforts to reduce system-related lead times

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Delays in cancer diagnosis and treatment initiation is a global problem that has gained increasing actuality during the Covid-19 pandemic due to deferred treatments and altered treatment patterns in many health care systems [1]. Studies that have assessed the impact of treatment delays on cancer survival have reached mixed conclusions, though meta-analyses provide more consistent support for an adverse correlation [2–4]. Methodological variability in design and data capture likely explain some of the differences observed, for example, related to whether data is based on questionnaires, clinical files, or registries, how time intervals are reported, and which outcomes are considered [5].

Head and neck cancers are among the diagnoses where diagnostic delays and prolonged time to treatment have been linked to poor outcomes [4,6,7]. In this issue of *Acta Oncologica*, Lauritzen et al. present a systematic review on the impact of diagnostic and treatment-initiating delays in cancer of the oral cavity [8]. The authors have included 16 global studies with 45,000 patients, of which 1460 provided information on diagnostic delays and 43,541 provided information on treatment delays. Of the six studies that provide information on patient delay and stage at diagnosis, three studies, all of which derived from Asia, showed a significant correlation between the delay and more advanced diagnosis. Professional delays and total diagnostic delays were, however, not found to be significantly correlated to the stage at diagnosis. The impact on survival showed heterogeneous results and varied between studies, with three studies suggesting a significant correlation between time from diagnosis to start of treatment, whereas two studies could not support a significant impact. Hanna et al. showed an increased risk for mortality after delayed curative surgery (HR 1.06) and radiotherapy (HR 1.09) in head and neck cancer [4].

A recent meta-analysis based on 1,272,681 patients showed significant associations between treatment delays and increased mortality [4]. The analysis included 7 cancer types – bladder cancer, breast cancer, colon cancer, rectal cancer, lung cancer, cervical cancer, and head and neck cancer – and revealed increased hazard ratios (HRs) for mortality related to each four-week delay of surgery (HR 1.06–1.08), systemic treatment (HR 1.01–1.28) and radiotherapy (HR

1.05–1.14) [4]. In cancer care, multiple factors influence lead times and outcomes, for example, access to health care, screening programs, principles for diagnostics, treatment, and follow-up. In head and neck cancer also cancer awareness, socioeconomic factors and comorbidity, and have been demonstrated to impact diagnostic delays [9–11]. Comorbidities and suboptimal performance status may require optimization for the patient to be fit for the treatment planned or reconsideration of treatment plans, which motivate extended pretreatment procedures. However, neither Hanna et al. nor Lauritzen et al. could distinguish between treatment delays caused by patient-related factors, disease-related factors, and system-related factors [4,8].

Current data suggest that minimized time to start of treatment translates to survival benefits across several cancer types, whereas the effect on other endpoints such as stage, local control, complication rates, functional outcomes, quality of life, patient satisfaction, and economic burden largely remain to be defined and may vary between cancer types. Future studies should thus optimally be designed to collect detailed, high-quality data on lead times for standardized and comparable analyses and to obtain evidence from various cancer types and in relation to various outcomes [5,12]. To grant timely treatment and reduce lead times, several Nordic countries have developed and implemented cancer pathways that define maximal lead times from suspected diagnosis to the start of treatment. The demonstration of a survival impact from lead times serves as a reminder to prioritize efforts to reduce system-related lead times and support timely treatment initiation to ensure the best possible outcomes in cancer treatment.

Disclosure statement

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