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Cancer pathways may be too rushed

PERSPECTIVES

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Are care pathways really a gift, or are they a dangerous jack-in-the-box ready to explode? Are hasty diagnostics and surgery doing our cancer patients a disservice?

Illustration: Skinkeape

We recently read how Norway's former Prime Minister, Erna Solberg, said the Conservative Party will 'build on the success of cancer pathways' and expand the provision to other patient groups (1). Her reference to the 'success' of cancer pathways made us wonder what exactly she meant by that. If she meant swiftly guiding patients through diagnosis and treatment, she may well be right. But if she meant 'success' in terms of 'in the patient's best interests', the situation becomes more complicated. Is faster always better for patients? Might it be wise to take a bit more time?

Prehabilitation can have an impact

In 2023, Molenaar et al. published results from the PREHAB Randomised Clinical Trial (2), which found that a four-week supervised lifestyle intervention for patients diagnosed with colorectal cancer could reduce postoperative complications by almost 50 %. However, this four-week timeframe is two weeks longer than that outlined in the patient pathway for colorectal cancer in Norway (3). The results from the study raise the concern that a singular focus on throughput times and the timing of the surgery may have caused avoidable postoperative complications in many patients that could have been avoided if the time had been taken to implement a personalised prehabilitation programme. But complications were hardly what Solberg had in mind when she referred to the care pathways as a 'success'.

Prehabilitation is a term that has only gained traction in Norway in the last few years, although it was first mentioned in connection with the development of the enhanced recovery after surgery (ERAS) protocol back in 1997 (4). It refers to a lifestyle intervention that serves as preparation for treatment, as opposed to rehabilitation, which involves recovery after treatment. Prehabilitation also

differs from preventive medicine in that it refers to a treatment intervention following a diagnosis, while preventive medicine denotes a lifestyle that specifically prevents the onset of disease.

A multimodal prehabilitation programme consists of four 'pillars': physical exercise to strengthen the heart and build muscle, optimisation of diet (primarily to ensure adequate protein intake), psychological support to mentally prepare patients for the upcoming process, and smoking cessation (5). The aim is to empower patients to take an active role in their treatment, thereby enhancing their sense of control and improving their tolerance for cancer surgery (6). This, in turn, will lead to a better quality of life (7), fewer complications (8) and faster recovery (9, 10). Prehabilitation can also provide long-term benefits in the form of a sustainable healthier lifestyle after treatment is completed (11).

One weakness in the available evidence, however, is the lack of standardised prehabilitation programmes. The length, content and outcome measures of the programmes vary, but most document some kind of health benefit (12–14). In the study by Molenaar et al., patients were offered three hours of supervised exercise per week for four weeks, which is a relatively short programme, but it nevertheless had a striking effect on the complication rate (2). Shorter periods in hospital have been reported among patients who receive prehabilitation, possibly by up to two days (15), which is also consistent with a quality improvement project by Akershus University Hospital (16). Different levels of cost savings associated with prehabilitation have also been reported, but further studies are needed to estimate national savings (17).

No two patients are alike

Can prehabilitation be standardised? Is it possible to devise a programme that is suitable for all patients with the same diagnosis? We know that the vulnerability of patients varies. Some are physically fit, while others have never set foot in a gym. Some patients are overweight, while others are severely undernourished. Some have never been sick before, while others have a variety of illnesses and conditions. Some have a strong support network, while others are lonely and alone. Some are young, while others are old. Additionally, the population is ageing, and as people age, they tend to become more frail (18). Sixteen per cent of the population is currently over the age of 67 (19), and this figure is expected to rise to over 20 % by 2050 (20), which will increase the number of cancer patients and those requiring surgery. Cancer surgery is constantly evolving, and the boundaries are continually being pushed. Advanced surgical techniques are increasingly available to more vulnerable patient groups and the growing elderly segment of the population (21).

> ***«We must listen to patients and involve them in the decision-making process, rather than focusing solely on the fastest treatment possible»***

It is reasonable to believe that prehabilitation programmes need to be tailored to individual patients to a far greater extent than they are today, and that it is not possible to devise one programme that is suitable for all patients within a diagnostic group. Patients' preferences will also vary widely, depending on their stage in life. A young patient will likely prioritise survival above all else, while a very elderly patient may place greater value on living at home independently than additional years in a nursing home where they depend on help with their daily routine. A young patient has a long life expectancy and wants the lowest possible risk of recurrence and metastasis. In contrast, an older patient may accept a higher risk of recurrence and metastasis in exchange for a lower surgical risk and a quicker postoperative recovery.

These diverse individual perspectives are not factored into the standardised care pathways, which have focused solely on providing the fastest possible treatment. In Norway, patients with colorectal cancer are supposed to undergo surgery within 14 calendar days, but research shows that prehabilitation programmes should last three to four weeks, if advisable, in order to increase functional capacity by 5–10 % (22). We therefore believe that many patients' care pathways are too rushed. Lifestyle and vulnerability need to be assessed, and personalised prehabilitation programmes need to be based on patients' individual preferences and needs. We must listen to patients and involve them in the decision-making process, rather than focusing solely on the fastest treatment possible.

Decentralised, national provision

In Norway, the population is highly dispersed, and in some areas the nearest hospital is several hours away. Patients requiring advanced cancer treatment need to travel to a regional cancer centre, which further increases travel time. For some, such a journey can take one or even two days. For patients living in such areas, a prehabilitation programme carried out at the hospital would require a lengthy stay in the hospital or in a nearby hotel. Even for patients living nearby, daily travel to the hospital can be a challenge.

One solution to this problem is to offer patients prehabilitation at home. The few studies conducted during the COVID-19 pandemic indicate that this solution is feasible and possibly also cost-effective (23–25). In Norway, the *Aktiv mot kreft* foundation, set up to incorporate personalised training into cancer treatment, has developed and established 21 training rooms at Norwegian hospitals, several of which provide remote training. In line with the Norwegian Health Directorate's objectives for remote follow-up from home (26), Bærum Hospital has implemented this solution and is currently conducting a randomised controlled trial to compare the effects of a hospital-based prehabilitation programme with those of a remote home-based programme (27). The hypothesis is that the remote home-based programme is no less effective than the hospital-based programme. So far, patients on the remote programme have reported a high level of satisfaction and feel they have

derived considerable benefit from the treatment. Thus, the remote solution enables decentralised prehabilitation for cancer patients in the period between diagnosis and surgery, regardless of where they live.

«Incorporating personalised prehabilitation into care pathways is in the patient's best interests»

Arendal Week 2024

During Arendal week 2024, an event to discuss societal issues, Sissy Leyell Espetvedt, head of oncology at the Norwegian Directorate of Health, stated that prehabilitation has been proposed as part of the new cancer strategy (28). It is encouraging news that the importance of restorative exercise is finally being acknowledged, but we believe there is a need to go even further. Given the available evidence on the benefits of prehabilitation in reducing complications, shortening hospital stays, improving health economics and increasing patient satisfaction, a new evaluation of care pathways is now needed. Rapid treatment is not necessarily good treatment, and the current one size fits all approach is no longer a viable option.

Incorporating personalised prehabilitation into care pathways is in the patient's best interests and should be regarded as an integral part of cancer treatment, beginning at the time of diagnosis. Surgery duration and the period leading up to an operation must be tailored to each patient's preferences and needs in order to ensure that those with the greatest need receive the most support, as well as optimal distribution of already limited healthcare resources. This approach will facilitate a complication-free flow of patients throughout the care pathway, rather than simply providing rapid treatment. Only then can cancer pathways be considered a success.

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