
Unwarranted variation – warranted change

PERSPECTIVES

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The National Operational Reassessment Group aims to reduce low-value health care and unwarranted variations.

Doctors strive to provide patients with the best possible treatment in accordance with current clinical guidelines. It would therefore be reasonable to expect consistency in the diagnostic evaluation and treatment of similar illnesses. While the distribution of most medical conditions is relatively similar throughout the population in Norway, the Norwegian Health Atlas from the Centre for Clinical Documentation and Evaluation (SKDE) reveals surprisingly large geographic variation in evaluation and treatment ([1](#)). For example, more than twice as many bunions are corrected surgically in the county of Møre og Romsdal compared to Østfold, and twice as many children in Nord-Trøndelag receive ear tubes compared to the neighbouring county of Nordland. These are just two examples among many.

«The Norwegian Health Atlas reveals surprisingly large geographic variation in evaluation and treatment»

If the variation cannot be attributed to differences in morbidity, it suggests that parts of the population are being under- or overtreated. Both are classified as unwarranted variation and are a cause for concern, especially since inappropriate methods and incorrect indications are the main factors behind compensation paid by the Norwegian System of Patient Injury Compensation [\(2\)](#), and because patient harm occurs in approximately 12 % of hospital stays in Norway [\(3\)](#).

Globally, it is estimated that 60 % of evaluations and treatments in the specialist health service have a substantial benefit relative to cost and risk, 30 % have an uncertain or limited benefit, while 10 % expose patients to risk without having any demonstrable benefit [\(4\)](#). Very little is known about the 'risk-benefit distribution' in Norway.

National Operational Reassessment Group

In 2019, the Norwegian Ministry of Health and Care Services tasked the regional health authorities with phasing out treatment methods with no documented effect. As part of this work, an investigation was conducted to determine whether the 'New Methods' framework was equally suitable for reassessing and phasing out existing treatment options as it was for evaluating and introducing new ones [\(5\)](#). Due to uncertainty regarding this, the regional health authorities decided in 2023 to establish a separate interregional mandate for identifying, reassessing and phasing out low-value health care.

Low-value health care is defined as health services (e.g. diagnostic and treatment interventions) for which the anticipated health benefit does not justify the associated risks and costs [\(6\)](#). Some argue that environmental costs should also be included in this calculation.

SKDE was commissioned to coordinate and lead the newly established National Operational Reassessment (NOR) group, consisting of representatives from the regional health authorities, with the regional medical directors serving as the steering committee.

The reassessment criteria for relevant health services are risk, patient volume and cost. Reassessments draw on data from the Norwegian Health Atlas and clinical dashboards, which show the geographic distribution of utilisation rates across Norway for various health services [\(1\)](#). NOR is also informed by international programmes aimed at reducing low-value health care [\(6–9\)](#), medical literature and the Norwegian Medical Association's Choosing Wisely Norway campaign [\(10\)](#).

When health services with uncertain or presumed limited health benefits are identified, they are presented to the steering committee for a decision on which services should be reassessed. National expert panels are then established with specialists from all regions with secretariat support from SKDE.

The goal is for the expert panels to use their expertise to assess the health service in light of the latest research and current best practice. This process should culminate in a recommendation and an action plan, which are submitted to the regional service user committees before the steering committee makes the final decision on implementation. This ensures a shared understanding and support from both the medical community and management.

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The initial focus areas are (i) acromion resection for shoulder impingement and suturing of degenerative rotator cuff tears [\(11\)](#), (ii) gastroscopy in patients under 45 years without additional symptoms, and (iii) invasive investigation and treatment of patients with chronic myocardial ischemia.

Knowledge alone does not change practice

It is reasonable to assume that healthcare personnel and hospitals would be concerned if their practices deviated from the norm. However, even when recommendations are supported by both the medical community and management, studies show that such measures often fail to achieve the expected impact [\(12, 13\)](#). Raising awareness alone is therefore not enough to effect change, and it remains unclear which measures can do this effectively [\(14\)](#). Evaluations of various campaigns have shown that devising recommendations to reduce low-value health care is not enough to change clinical practice [\(15, 16\)](#). Consequently, it is not clear how NOR can best tackle the reassessment challenge, but we have some ideas we would like to present.

NOR's primary task is to reduce low-value health care and promote best practice. In this context, it is important to recognise that variation in health service utilisation tends to indicate a lack of clinical consensus or differences in treatment capacity [\(17\)](#). Moreover, the absence of variation does not in itself rule out either under- or overtreatment [\(18\)](#). For many conditions, there are no clear guidelines for best practice, and it is also unclear what the appropriate treatment rates should be. This leads to what is known as preference-sensitive variation [\(17\)](#). NOR seeks to reduce this by establishing expert panels that devise clear, evidence-based recommendations around which consensus can be built. Shared resources like metodebok.no, or clear recommendations such as those in the Choosing Wisely Norway campaign, are intended to contribute to a common standard for good practice.

Where knowledge about variation in a particular service is limited, two principles can guide a preliminary, pragmatic approach: (i) all variation in the capacity and quality of necessary health services is, in principle, unwarranted, and (ii) the average – or in some cases, the lowest – utilisation rate in Norway can serve as a benchmark.

Rudolfson et al. demonstrated an interesting approach to calculating the 'optimal' treatment rate (19). By combining clinical outcome measures from the Norwegian Registry for Spine Surgery with published surgery rates in the corresponding catchment areas, they showed that the dose-response curve had a breakpoint where increasing treatment rates were associated with reduced treatment effectiveness. We believe this approach can be applied to other health services to estimate the marginal effect of different health services' utilisation rates. It is important to understand that such rates are a guide as opposed to a 'quota', since the wrong patients might still be selected. In all cases, and especially where there is disagreement about best practice, the patient's preference should be respected through the shared decision-making process (20).

How can unwarranted practices be stamped out?

The extent of evaluation and treatment in hospitals also depends on the role of general practitioners (GPs) as gatekeepers. This function works best when GPs know their patients well (21). Roczniowska et al. recently showed that GPs in Sweden were inclined to comply with patients' requests for low-value examinations or treatment provided they were not resource-intensive and the doctor had no obvious objections (22). Fear of overlooking a serious illness was cited as the most common reason for the increase in testing. However, increased testing is not without its problems: it can lead to false-positive results and incidental findings, which are resource-intensive for the public health service and stressful for the patient. Apparently 'innocent' examinations can thus trigger unfortunate cascades ending in overdiagnosis, waiting lists and overtreatment. However, an unnecessary referral can be difficult to reject, and a typical pragmatic solution is to set a long treatment deadline, which then increases hospital waiting times (23). Clinical guidelines and protocols should therefore be kept up to date and provide unambiguous, consistent recommendations.

«The extent of evaluation and treatment in hospitals also depends on the role of GPs as gatekeepers»

It may seem logical that discontinuing low-value health care would reduce costs and thereby improve hospital finances. However, according to Kroon et al., initiatives aimed solely at cutting costs often fail, because around 80 % of hospital operating expenses are essentially fixed costs, and as such are unaffected by activity levels (24). While it is certainly possible to reduce fixed costs, doing so is time-consuming. Outpatient clinics, operating theatres and other health services should therefore aim to replace low-value services with ones that offer demonstrably greater value (24). Subspecialist services at small local hospitals, where patient volumes are low, are likely to pose a challenge in such a restructuring process.

The Health Personnel Commission points to a growing future mismatch between the number of healthcare personnel and the increasing needs of an ageing population (25). Current practice is not sustainable in the long term, and reducing low-value health care must be given a high priority. Financial incentives also play an important role in this work, and reimbursement rates for low-value health care may need to be lowered in order to encourage more appropriate prioritisation.

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