

Health care systems are increasingly subject to economization. Patients are viewed as consumers who are free to choose their health services. Health-related information is often influenced by the interests. Early detection and screening tests, laboratory analyses, imaging techniques, new pharmaceuticals, as well as expert recommendations and specialist knowledge, are overestimated. Possible harm or insufficient evidence are rarely addressed. These guidelines summarize the most important guideline recommendations on the overuse and underuse of health care. The goal of this guideline is to support the practice of better, fairer, safer and more humane medicine.

Definitions

Conditions requiring care are those for which treatment is expected to provide health benefits to patients.

Overuse is defined as healthcare use that goes beyond the coverage of needs. The services provided are usually without sufficient benefit or are not indicated. Underuse occurs if healthcare is not provided or only provided partially when there is a recognized need, even though it is available with sufficiently proven benefits and efficiency.

Overdiagnosis refers to diagnostic measures that are superfluous to the detection of a disease or for therapy decisions, or for which the benefits are accompanied or outweighed by harm (i.e., overuse). The harm caused by excessive diagnostic procedures also includes overdiagnosis and its consequences, particularly overtreatment.

Frequency of the overuse and underuse of health care

Differences in health care delivery (e.g. between hospitals or regions) and changes in frequency of health care utilization may be indicators of overuse or underuse; however, these do not provide sufficient evidence to draw conclusions. To enable data collection, the abstract terms defined above must be reformulated in a concrete way that enables the objective measurement of overuse and underuse of health care. Ideally, this requires the following: a clear definition of the disease, valid diagnostic procedures for objective detection of the disease, valid information about which therapies hold promise as well as the nature and probability of potential benefits and harms. However, such a level of clarity is rarely present in published data. Research results are often missing, or they are unclear and misleading due to deficiencies in study methodology. There is also only a certain degree of probability that diagnoses and prognoses will be correct in individual cases, and an intervention will not necessarily have the same effect on all patients. Therefore, the overuse and underuse of health care cannot be fully quantified or completely avoided. These phenomena can, however, be minimized; this is one of the goals of this guideline.

Selection of recommendations

General practitioners have a mediating role between patients and other specialists. Ideally, they have an overview of the patient as a whole and are therefore best able to assess their needs on an individual basis. These guidelines are intended to assist in this context and draw attention to areas where the overuse and underuse of health care are very likely to occur to the best of current judgement. To this end, all the strong recommendations from relevant guidelines (DEGAM, NVL) were evaluated by a panel of clinically active general practitioners. The selection and prioritization criteria included the assessment of relevance for the overuse and underuse of health care, the quality of the evidence, the strength of recommendations and the classification with regard to overarching health care goals. High-priority recommendations have been included in these guidelines. The recommendations should support general practitioners in the provision of medical services which are as relevant as possible. The recommendations in this short version are taken from the German guidelines, „Protection against the overuse and underuse of health care“. Explanations for the following recommendations are provided in this and the respective cited guidelines.

Table: Prioritized guideline recommendations to protect against the overuse (■) and underuse of health care (□)

DEGAM or NVL Guideline	Recommendation	
	Prevention	
Cough	All patients with cough should be asked about their tobacco consumption. Smoker status should be documented regularly.	□
Cardiovascular prevention*	In primary prevention, the global, absolute cardiovascular risk should serve as the primary basis for decision-making. A validated, evidence-based algorithm should be used to calculate the cardiovascular risk. A drug-induced reduction of HbA1c below 6.5 % does not yield a net benefit and should therefore not be used for cardiovascular prevention.	■ □ ■ □
Stroke**	A comprehensive evaluation for potential home hazards should be completed for stroke patients at high risk for falls. Patients and family members should be counseled on the recognition and removal of potential hazards.	□

DEGAM or NVL Guideline	Recommendation	
Caregivers of adult relatives**	Caregivers of adult relatives should be given the opportunity (e.g., during health visits for their relative) to express their needs. Decisions regarding measures taken as a result of these needs should be made together with the treating physician. General practitioners should counsel caregivers on the use of available resources and services for support.	□ □
	Screening	
Prevention of skin cancer	The German College of General Practitioners and Family Physicians (DEGAM) regards the evidence for the benefit of a general skin cancer screening as insufficient. In individual cases, skin cancer screening can be carried out after a balanced explanation of the advantages and disadvantages.	■
Alcohol related disorders	DEGAM does not recommend screening for harmful alcohol use in the primary care sector, but rather a case finding process, i.e. the identification of persons with special risks, taking into account the individual situation of the patients. DEGAM believes that the evidence for screening is insufficient.	■
Prostate cancer	Screening for prostate cancer by means of prostate specific antigen (PSA) should not be actively addressed in men who do not explicitly express the wish for this examination. Men who do request screening on their own initiative should be informed about the advantages and disadvantages without prejudice to the outcome. The possible benefits and risks (e.g., overdiagnosis and overtreatment) should be presented graphically and as natural numbers. The significance of positive and negative test results should also be presented.	■
	Diagnostics	
Sore throat	In patients with 0 to 2 Centor criteria (McIsaac score <3), the probability of group A streptococcal (GAS) pharyngitis (strep throat) is low. Even in the case of a positive throat swab, pharyngitis of a different etiology with an asymptomatic GAS carrier status is currently assumed to be more likely in most cases. A throat swab for a rapid test or culture should therefore not be performed in these patients and antibiotics should not be prescribed.	■
Fatigue	In cases of unclear fatigue, screening questions should be used to determine whether the patient is suffering from depression or an anxiety disorder, as well as to assess for recent infections. Further laboratory or diagnostic examinations should only be carried out in the case of abnormal preliminary findings/specific indications in the recommended basic diagnostics.	□ ■
Chest pain	For every patient with chest pain, the probability (low, medium, or high) of coronary heart disease (CHD) should be estimated. We recommend using the Marburger Heart Score, which was especially developed for the general medical care sector, to specifically stratify the probability. Only recommend coronary angiography to the patient if a defined diagnostic and/or therapeutic benefit can be expected.	■ ■
Dementia	If there are signs of a treatable dementia, the option of diagnostic imaging should be discussed with the patient or their legal representative.	■
Lower back pain	If the history and physical examination of patients with lower back pain on first contact do not reveal evidence of dangerous progression or any other serious pathology, no further diagnostic measures should be taken for the time being. In acute and recurrent lower back pain, no imaging diagnosis should be performed without relevant evidence of dangerous progression or other serious pathologies in the patient's medical history and physical examination.	■ ■
Unipolar depression	As depressive patients rarely spontaneously report typical depressive core symptoms and tend to indicate unspecific complaints instead, such as sleep disorders with early morning awakening, loss of appetite, generalized weakness, persistent pain and/or physical complaints, the presence of a depressive disorder or other symptoms of a depressive disorder should be explored actively.	□ ■
Acute dizziness in the family practice*	Only a small proportion of patients with acute symptoms of dizziness in family practice are given a specific diagnosis. Acute dizziness often cannot be assigned to a specific diagnosis despite adequate primary clarification, including consideration of avoidable life-threatening conditions. It often goes away spontaneously, so that an approach of „wait and see“/watchful waiting after the exclusion of an avoidable life-threatening conditions is often advisable.	□

DEGAM or NVL Guideline	Recommendation	
	Therapy	
Sore throat	The family physician should clearly explain that most sore throats are caused by a virus and that antibiotics do not help with viral infections.	■
Cough	In cases of community-acquired pneumonia and in the absence of risk factors, empirical oral antibiotic therapy over 5-7 days with an aminopenicillin, alternatively with a tetracycline or a macrolide, should be administered. ■ Uncomplicated acute bronchitis should not be treated with antibiotics. ■ Neuraminidase inhibitors for the treatment of seasonal influenza should only be used in specific cases. ■ An acute cough due to an infection should not be treated with expectorants (secretolytic and mucolytic agents). ■	■ ■ ■ ■
Dementia	The Drug Directive permits the prescription of anti-dementia drugs at the expense of the statutory health insurance (GKV/SHI) system only if follow-up examinations are carried out and these examinations do not show clear clinical deterioration. Before treatment, the affected persons and, if necessary, their relatives should therefore be informed that a follow-up examination is planned and may lead to an interruption of treatment. ■	■
Lower back pain	Transdermal opioids should not be used for the treatment of acute and subacute non-specific lower back pain. ■ NSAIDs should not be administered parenterally. ■ Analgesic therapy using intravenous, intramuscular or subcutaneous administration, local anesthetics, glucocorticoids and mixed infusions should not be used to treat non-specific lower back pain. ■	■ ■ ■
CKD**	The kidney function of adult patients taking long-term, potentially nephrotoxic medications should be examined at least once a year. □ When prescribing new medications for patients with CKD (GFR < 60 ml/min/1,73m ²), the necessity of dose adjustment or the presence of a contraindication based on kidney function should be evaluated. □	□ □
	Long-term primary care of	
Dementia	A case of dementia in the family usually affects the whole family. Relatives often suffer more as a result of the index person's dementia than does the affected individual. In the primary care of persons with dementia, a special focus should be placed on the specific risks of other family members as a particularly vulnerable group. □	□
Lower back pain	Opioid therapy should be re-evaluated regularly for acute, non-specific lower back pain after four weeks at the latest, and after three months at the latest for chronic lower back pain. ■ Opioid therapy should be discontinued if the agreed treatment goal is not achieved. ■ A physician should take on the role of a so-called gatekeeper for the entire care process. This physician is the first point of contact for the patient and coordinates all the treatment steps. □	■ ■ □
Multimorbidity*	The following aspects should be addressed when determining patient preferences and values: □ Patients should be encouraged to express their personal goals and priorities. This includes ■ Clarifying the importance of: ■ Maintaining the social role: professionally/at work, participation in social activities, family life; ■ Prevention of specific events (e.g. stroke); ■ Minimization of drug side effects; ■ Reduction of the burden of treatments; ■ Prolongation of life. The patient's attitude towards their therapy and its possible benefits should be explored. Expert consensus: Together with the patient, a decision should be made as to whether partners, relatives or caregivers should be involved in important care decisions and to what extent. If several health care professions are involved in the treatment of patients with multimorbidity, the parties involved (patient, specialists, family physician, relatives, nursing staff) should consult each other with regard to diagnostics and therapy. □	□ ■ ■ ■ ■ ■ □ ■

DEGAM or NVL Guideline	Recommendation	
Caregivers of adult relatives**	General practitioners should take initiative during any type of clinical encounter (e.g. sick visits, follow-ups) to gather additional medical history and to (re-)assess the care situation and caregiver burden. □ Medical assistants should forward observations and information gained from informal discussions with the patient and caregiver to the general practitioner. □	□ □
CKD**	A critical review of the long-term medication should be conducted in patients with CKD (GFR < 60 ml/min/1,73m ²) at least once a year. □	□

* This recommendation is derived from the 1st update of the Living Guideline, status 01/2020

** This recommendation is derived from the 2nd update of the Living Guideline, status 03/2021