Protection against the overuse and underuse of health care – choosing together

Short version

Health care systems are increasingly subject to economization. Patients are viewed as consumers who are free to choose which health services they receive. Information related to health that is relayed to patients and providers is often influenced by third-party interests. The benefits of early detection and screening tests, laboratory analyses, imaging techniques, new pharmaceuticals, as well as the accuracy of expert recommendations and specialist knowledge tend to be overestimated. Aspects such as potential harm resulting from recommended tests or therapies and lack of evidence basis are rarely addressed. This guideline summarizes key recommendations regarding the over- and underuse of health care with the goal of achieving better, fairer, safer and more patient-centered care.

Definitions

Health care needs are defined as conditions for which treatment can be expected to provide health benefits to patients.
Overuse of health care is defined as usage that goes beyond the coverage of needs. The services provided usually lack sufficient benefit and/or indication. Underuse of health care occurs if treatment for a recognized need is not provided or only insufficiently provided, despite availability, efficiency and proven benefits of the treatment in question.
Overdiagnosis is defined as any diagnostic measure that is superfluous for disease detection or therapy decisions. The benefits of overdiagnosis are outweighed by harms to patient or system (i.e., overuse). The harm caused by excessive diagnostic procedures includes overdiagnosis and subsequent overtreatment.

Frequency of the overuse and underuse of health care

Differences in health care patterns between hospitals or regions and changes in frequency of care over time may be an indication of over- or underuse; however, this is not conclusive evidence. The above abstract definitions must be formulated in a way that enables the objective measurement of over- and underuse of health care. Ideally, such a formulation would contain a clear definition of the disease in question, valid diagnostic procedures for the objective detection of the disease and valid information about which therapies are promising, which benefits and harms accompany them and the probability thereof. However, such clarity is rarely present in published data. Research results are often unclear, incomplete and/or misleading due to deficiencies in study methodology. There is also an inherent degree of uncertainty: Diagnoses and prognoses are not always correct in individual cases and an intervention does not necessarily have the same effect on all patients. Therefore, the over- and underuse of health care cannot be fully quantified and cannot be completely avoided. However, it can be minimized – this is one of the aims of this guideline.

Selection of recommendations

General practitioners have the role of mediator between patients and specialists. They view the patient as a whole and are therefore best able to assess their individual needs. This guideline intends to assist general practitioners and draw attention to areas in which, to the best of current judgement, over- and underuse of health care are likely to occur. To accomplish this, all 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 over- and underuse of health care, the quality of the available evidence and the strength of recommendations. The classification with regard to overarching health care goals (e.g., prevention, screening, therapy of diseases). This guideline summarizes the high-priority recommendations which were identified and should support general practitioners in the provision of health care services that are as relevant as possible.
The recommendations in this short version of the guideline are taken from the German guideline „Protection against the overuse and underuse of health care". Explanations for the following recommendations are provided in this and other cited guidelines.

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

Guideline	Recommendation	
	Prevention	
Sore throat*	The most common infectious cause of sore throat varies according to age and is usually a self-limiting viral infection of the pharynx.	■
	Dangerous complications of sore throat are very rare in countries such as Germany, the USA and the Netherlands.	■
Cough*	Adult patients without red flags should be counseled on the self-limiting nature of acute cough due to a respiratory infection as well as methods of self-management of cough.	■
	All patients with chronic cough should be asked about their tobacco consumption.	□
Cardiovascular prevention	In primary prevention, the global, absolute cardiovascular risk should serve as the primary basis for decision-making.	■ □
	An evaluated risk 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.	□
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.	□
	The consultation on the use of available resources and support services for caregivers should take place in an empathetic and timely manner.	□
	The general practice team should have an overview of the local/regional offerings for support services and resources.	□
	Screening	
Prevention of skin cancer	The German College of General Practitioners and Family Physicians (DEGAM) and the German Society of Oto-Rhino-Laryngology, Head and Neck Surgery (DGHNO) agree with international institutions in regarding the evidence for the benefit of general skin cancer screening compared to opportunistic screening as insufficient. Skin cancer mortality has not decreased in the time since the introduction of general skin cancer screening in Germany. Therefore, skin cancer screening without a specific indication should not be offered. In individual and especially high-risk cases, skin cancer screening can be carried out after a balanced explanation of the advantages and disadvantages.	■
	Diagnostics	
Sore throat*	Laboratory diagnostics such as leucocyte count, C-reactive protein, erythrocyte sedimentation rate and procalcitonin should not be ordered as part of the routine workup of patients with sore throat for < 14 days without red flags.	■
	The measurement of anti-streptolysin-O titers and other streptococcal antibodies should not be carried out in acute and recurring tonsillopharyngitis.	■
	Neither microbiological cultures nor rapid tests can definitively differentiate between infection and carrier status.	■
	Antibiotic therapy should be avoided in children and adolescents (age < 15 years) with acute sore throat without red flags and with a negative rapid test for Group-A-Strep.	■
Cough*	A detailed clinical history and symptom-oriented clinical examination are sufficient for diagnosis in adult patients with acute cough without red flags.	■
	The most common cause of acute cough in adult patients is a self-limiting viral infection of the respiratory tract.	■
	Blood and sputum diagnostics as well as chest x-rays should be avoided in adult patients with clinical diagnoses of a cold or acute bronchitis without red flags.	■
	The common cold and acute bronchitis in adult patients without red flags should not be treated with antibiotics.	■
	A pneumonia is very unlikely in adult patients with an acute upper respiratory tract infection and normal vital parameters (temperature, respiratory rate, heart rate) and unremarkable auscultatory findings.	■
	When used for decision-making regarding referral for hospital admission, the CRB-65 Score appears to overestimate the risk of patients with community acquired pneumonia. An individual risk estimation is therefore reasonable.	■

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Chronic coronary artery disease*	An invasive coronary angiography should not be carried out: ■ When there is a low probability of coronary artery disease with luminal narrowing ■ When there is a moderate probability of coronary artery disease with luminal narrowing and noninvasive diagnostics have shown no evidence of myocardial ischemia ■ In multimorbid patients for whom the risks of coronary angiography exceed the benefits of confirming the diagnosis of coronary artery disease and any resulting therapeutic measures ■ In patients without symptoms that constitute an indication for coronary angiography, who have been counseled using the informational brochure "Suspected coronary artery disease: Do I need a cardiac catheter examination?" and would decline a coronary bypass operation, if this were to be indicated. (Brochure currently in revision.) ■ In patients who have undergone an intervention (coronary bypass or PCI) without new-onset angina pectoris, for whom noninvasive diagnostic testing shows either no signs of myocardial ischemia or no change in findings compared to pre-intervention results.	■
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.	■
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 initial findings from the history and physical examination of patients with lower back pain do not reveal evidence of dangerous progression or serious pathology, no further immediate diagnostic measures should be taken.	■
	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	Because patients with depression rarely spontaneously report typical core symptoms of depression and tend to report unspecific complaints 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 actively explored.	□ ■
Patients with 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 work-up, including consideration of life-threatening conditions. The condition often resolves spontaneously, so that watchful waiting after ruling out life-threatening conditions is advisable.	
	Therapy	
Sore throat*	An immediate referral for hospital admission should take place if the following conditions are present in addition to sore throat: ■ Stridor or difficulty breathing (suspected epiglottitis, infectious mononucleosis) ■ Signs of a serious systemic illness (such as meningitis, diphtheria, Kawasaki Syndrome, Lemierre Syndrome) ■ Signs of infectious complications (peritonsillar, parapharyngeal or retropharyngeal abscess) ■ Signs of decreased ability to take in fluids or exsiccosis	□
	Medical lozenges with local antiseptic properties or antibiotics should not be recommended for local pain relief.	■
	Corticosteroids should not be used for analgesic therapy for sore throat.	■
Cough*	Acute cough due to a respiratory infection in adults typically resolves spontaneously without medical treatment.	■
Type 2 Diabetes*	Individual treatment goals for hemoglobin A1c in patients with type 2 diabetes should be set, keeping in mind the factors mentioned in Figure 8 of the long version of the guideline.	■ □

Guideline	Recommendation	
Chronic coronary artery disease*	PCSK9 inhibitors should not be routinely prescribed to patients with coronary artery disease unless PCSK9 inhibitors are implemented to avoid lipid apheresis.	■
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.	■
Chronic kidney disease (CKD)	The kidney function of adult patients taking long-term, potentially nephrotoxic medicaitons should be examined at least once a year.	□
	When prescribing new medications for patients with CKD (GFR < 60 ml/min/1,73m²), the necessity of dose adjustment or the presence of a contraindication based on kidney function should be evaluated.	□
	Long-term primary care	
Sore throat*	An antibiotic therapy for bacterial tonsillopharyngitis that does not show any effect after 3-4 days can be discontinued (after re-evaluation and consideration of differential diagnoses) to decrease the risk of development of bacterial resistance or side effects.	■
	Routine follow-ups with a physician after successful treatment of sore throat are not necessary.	■
	A follow-up and re-evaluation should take place if a patient with sore throat experiences a worsening of symptoms or lack of improvement after 3-4 days. The following should be considered: ■ Differential diagnoses such as infectious mononucleosis ■ Symptoms or signs of a serious systemic illness ■ Previous treatment with antibiotics that could have led to development of resistance	□
Type 2 Diabetes*	Individual therapy goals and priorities should be arranged in the initial visit with patients with type 2 diabetes and regularly addressed at follow-up visits.	■
	Individual therapy goals and priorities should be regularly re-evaluated and changed as needed.	□
	Individual therapy goals and priorities should be reviewed before escalation of therapy.	■
	A de-escalation or change in therapeutic strategy in patients with type 2 diabetes should be regularly re-evaluated, especially in the following circumstances: ■ When the negative effects of the therapy impede the safety and/or quality of life of the patient ■ In individual situations in which preservation of current quality of life outweighs potential prognostic benefits of therapy ■ In situations in which current treatment fails to achieve therapy goals ■ In multimorbid patients with polypharmacy ■ At the emergence of new acute disease.	■
	The de-escalation of insulin therapy in patients with type 2 diabetes should be re-evaluated in the following situations: ■ In situations in which the indication for therapy change (such as acute illness, instable hyper- or hypoglycemia, worsening of kidney function) no longer exists ■ In situations in which individual therapy goals have been achieved or exceeded ■ When hypoglycemic episodes occur ■ In situations in which the individual therapy goal has changed (e.g., due to multimorbidity).	■
Chronic coronary artery disease*	Specialized cardiological diagnostics such as exercise testing and echocardiography should not routinely take place for disease monitoring in asymptomatic patients with coronary artery disease.	■

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Polypharmacy*	Patient medication should be evaluated in a structured way, e.g. by using an instrument such as the modified appropriateness index*, while considering the following: ■ Lists of medications that are potentially inappropriate for elderly patients, such as the "Priscus-List"; medications which lengthen the QTc interval ■ Underuse of health care ■ Therapy adherence.	■
	It should be clarified at every evaluation of patient medications whether medications are missing, were discontinued or underwent a change in dosage.	□ ■
	Patient medication plans should always be complete and up to date; in Germany, it is recommended to use the national format (BMP). It is the responsibility of the general practitioner/primary provider to coordinate the updates of medication plans. These plans should be presented by patients at every visit at the doctor's office and at the pharmacy.	■
	The coordinating/primary doctor should ensure that every patient has an up-to-date list of his or her medications.	□ ■
Dementia	A case of dementia in the family usually affects the whole family. Relatives often suffer more subjectively from patient's dementia than does the affected individual. In the primary care of patients with dementia, a special focus should be placed on the specific risks other family members face 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.	□ ■
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.	□
Chronic kidney disease (CKD)	A critical review of the long-term medication should be conducted in patients with CKD (GFR < 60 ml/min/1,73m²) at least once a year.	□

* Recommendation derived from the third update of the Living Guideline, status as of 03/2022
All other recommendations were re-evaluated in the year 2022.
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