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

Short version

Health systems are subject to increasing profit orientation. Patients are seen as consumers who are free to make their own decisions. Health-related information is often interest-driven. Early detection and screening tests, laboratory analyses, imaging techniques, new pharmaceuticals as well as experts and specialist expertise are overestimated. Potential harm or lack of evidence is rarely addressed. This guideline summarizes the most important guideline recommendations on the overuse and underuse of health care. The aim is to achieve better, fairer, safer and more people-friendly medicine.

Definitions

A need for healthcare refers to a condition, the treatment of which is expected to provide health benefits.
Overuse refers to a use that goes beyond satisfying needs. The services provided are usually without sufficient benefit or not indicated. Underuse occurs if healthcare is not provided, or only provided partially when there is an acknowledged need, even though it is available with sufficiently proven benefits and efficiency.
Overdiagnosis refers to diagnostic measures that are not needed to detect a disease or take a decision on therapy, or where the benefits do not outweigh the resulting harm. This constitutes 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 care (e.g. between hospitals or regionally) and changes in care frequency over time may be an indication of overuse or underuse, but do not suffice as evidence. In a specific case of healthcare, the above abstract definitions must be formulated in such a way that it is possible to objectively measure the overuse and underuse of health care. Ideally, this requires: A clear definition of the disease, valid diagnostic procedures for objective detection of the disease and valid information about which therapies are promising and which benefits and harm accompany them, and with what probability. However, this clarity is rarely present. Research results are often missing or unclear and misleading due to methodologically flawed studies. Uncertainty also means that there is only a certain degree of probability that diagnoses and prognoses will be correct in individual cases and that an intervention will not necessarily have the same effect on everyone and to the same extent. This makes it impossible to obtain a comprehensive picture of the overuse and underuse of health care and thus fully avoid them. However, they can be minimized – and that is an aim of this guideline.

Selection of recommendations

Primary care physicians have a mediating role between patients and other specialists. They view the individual as a whole and are therefore best able to assess his or her needs in an individual case. This guideline is intended to assist in this context and draw attention to areas where, to the best of current judgement, the overuse and underuse of health care is very likely to occur. To this end, all the strong recommendations from the 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 base, the strength of recommendations and the classification with regard to overarching health care goals. High-priority recommendations were included in this guideline. The recommendations should help to reflect one's own medical actions in relation to services that are as relevant as possible.
The recommendations in this short version are from the German guideline, "Protection against the overuse and underuse of health care". They are explained and justified there and in the guidelines mentioned there.

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

DEGAM or NVL Guideline	Recommendation	
	Prevention	
Sore throat	Self-limiting viral infections of the pharynx are the most common, infectious cause of sore throat (independent of age).	■
	Dangerous complications due to a sore throat are very rare in countries such as Germany, the United Kingdom and the Netherlands.	■
Cough	Adult patients without red flags should be educated about the spontaneous course of an acute cough in the setting of a respiratory infection and about self-management options.	■
	Smoking history should be obtained in every adult patient with chronic cough.	□
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 provide any net benefit and should therefore not be used for cardiovascular prevention.	■
Stroke	A comprehensive assessment of fall hazards in the home environment should be performed for stroke patients at high risk for falls. Patients and their relatives should be counseled to eliminate sources of danger.	□
Caregiving family members/ relatives of adults	Caregiving family members/relatives should be given the opportunity to express their needs during possible medical history discussions or assessments of the family members/relatives. Decisions on measures derived from these should be made jointly.	□
	Caregiving family members/relatives should be informed about support and relief services.	□
	The primary care physician should have an appreciative consultation with caregiving family members/ relatives at an early stage about the use of help and support services.	□
	The primary care team should have an overview of the local/regional range of services.	□
	Screening	
Prevention of skin cancer	In agreement with international institutions, the German College of General Practitioners and Family Physicians (DEGAM) and the German Society of Oto-Rhino-Laryngology, Head and Neck Surgery (DGHNO) continue to assess the evidence for the benefit of general skin cancer screening compared to opportunistic screening as insufficient. Since the introduction of skin cancer screening, skin cancer mortality in Germany has not decreased. Therefore, no-cause skin cancer screening should not be offered. In individual cases, screening for skin cancer can be performed after a balanced explanation of the advantages and disadvantages, particularly in people at increased risk.	■
	Diagnostics	
Sore throat	The determination of laboratory parameters such as leukocytes, C-reactive protein, erythrocyte sedimentation rate and procalcitonin should not be routinely performed as part of the diagnostic work-up in patients with acute sore throat (< 14 days duration) without RED FLAGS.	■
	Determination of the antistreptolysin titer (ASL titer) and other streptococcal antibody titers should not be performed in acute and recurrent tonsillopharyngitis.	■
	Reliable differentiation between an infection and carrier status is not possible by microbiological cultures or rapid tests.	■
	In children and adolescents (age ≤ 15 years) with acute sore throat without RED FLAGS, antibiotic therapy should be omitted if the rapid test result for group A streptococci is negative.	■
Cough	In adult patients with acute cough without red flags, a thorough medical history and symptom-oriented clinical examination are sufficient to establish the diagnosis.	■
	The most common cause of acute cough in adult patients is a self-limiting respiratory viral infection.	■
	When a clinical diagnosis of cold or acute bronchitis is made, blood tests, sputum diagnosis and chest X-rays should be omitted in adult patients without red flags.	■
	Colds and acute bronchitis in adult patients without red flags should not be treated with antibiotics.	■
	In adult patients with an acute respiratory tract infection, pneumonia is very unlikely if the vital signs (temperature, respiratory rate and heart rate) are normal and pulmonary auscultation is unremarkable.	■
	In the decision-making process for the hospitalization of a patient with community-acquired pneumonia, the CRB-65 score appears to overestimate risk in primary care. Supplementary individual risk assessment is therefore useful in this context.	■
Chronic Coronary Heart Disease (CHD) Chapter on Revascularization*	Patients with a strong suspicion of stenosing CHD after a non-invasive diagnostic work-up (see Chapter 4 Diagnostic Work-Ups in (Suspected) CHD (2016)) should be advised using "Decision-making aid: Protection against coronary heart disease – do I need cardiac catheterization?" (see Figure 4). The counselling should be documented.	■
	Patients who are not willing to undergo bypass surgery with the aim of prolonging their life or who have a contraindication for the surgery should not receive an invasive diagnostic work-up to resolve the diagnosis of coronary morphology.	■
	Patients should be informed that there is no evidence from randomized trials for a possible survival benefit of percutaneous coronary intervention (PCI) (see "Decision-making aid: suspected coronary artery disease - do I need cardiac catheterization?").	■
	In the case of multivessel disease or main stem stenosis, patients should be counselled using "Decision-making aid: narrowed coronary vessels - a stent or bypass?" (see Figure 4). The counselling should be documented.	■

Authors M. Scherer, D. Lühmann, G. Egidi, T. Kühlein, D. Abiry, A. Barzel, C. Muche-Borowski

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Chronic coronary heart disease (CHD)	Invasive coronary angiography should not be performed ■ If there is a low probability of stenosing CHD; ■ If there is a moderate probability of stenosing CAD and no evidence of ischemia after a noninvasive diagnostic work-up; ■ In cases of high comorbidity, where the risk of coronary angiography is greater than the benefit from confirming the diagnosis and resulting therapeutic measures; ■ In patients without a symptomatic indication who are not willing to have bypass surgery based on a prognostic indication after being advised using the patient sheet, "Suspected coronary artery disease: Do I need cardiac catheterization?" (the patient sheet is being revised); ■ After intervention (bypass surgery or PCI) without recurrence of angina and without evidence of ischemia in the noninvasive diagnostic work-up or without a change in the results of noninvasive imaging compared to the status before the intervention.	■
Fatigue*	In cases of primarily unexplained fatigue, screening questions should be used to determine a depression or anxiety disorder.	□
	Further laboratory or instrumental examinations should only be performed in the case of abnormal previous findings/specific indications in the recommended basic diagnostic work-up.	■
Dementia	If there is evidence of dementia that can be treated, the option of imaging diagnostics should be discussed with the patient or their legal representative.	■
Lower back pain	If the medical history and physical examination of patients with lower back pain on first contact do not reveal any 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 diagnostic imaging should be performed without relevant evidence of dangerous progression or other serious pathologies in the patient's medical history and physical examination.	■
Acute dizziness in the primary care physician's practice	When looking at patients with the symptom of dizziness in the primary care physician's practice, often only a relatively small share of the patients are given a specific diagnosis. Acute dizziness cannot be assigned to a specific diagnosis despite adequate primary clarification, including consideration of avoidable dangerous courses. It often disappears spontaneously, so that an approach of "wait and see"/watchful waiting after the exclusion of an avoidable dangerous condition is often advisable.	□
	Therapy	
Unipolar depression*	Patients with mild depressive symptoms should be offered psychotherapy ■ If the symptoms persist despite the use of low-intensity interventions and/or ■ If they have responded well to psychotherapy in the past, and/or ■ If they are at risk for chronicity or the development of moderate or major depression (e.g., previous depressive episodes, psychosocial risk factors) and/or ■ If they reject low-threshold methods or have not responded well to them in the past.	■
	Internet- and mobile-based interventions can be offered to patients with moderate depressive episodes in addition to treatment with antidepressants or psychotherapy.	■
Sore throat	The patient should immediately be referred to a clinic if, in addition to the symptom of sore throat, the following conditions or "AGV" (preventable dangerous courses) are present: ■ Stridor or respiratory impairment (due to suspected epiglottitis, infectious mononucleosis) ■ Evidence of a severe systemic disease (e.g., meningitis, diphtheria, Kawasaki disease, Lemierre syndrome) ■ Evidence of severe suppurative complications (peritonsillar, parapharyngeal or retro-pharyngeal abscess) ■ Signs of impaired fluid intake with the threat of dehydration	□
	Sucking medicated lozenges containing local antiseptics and/or antibiotics for local pain relief should not be recommended.	■
	Corticosteroids should not be used for analgesic therapy for sore throat.	■
Cough	Acute cough in the context of respiratory tract infection in adult patients subsides, even without drug therapy.	■
Type 2 diabetes	Individualized therapy targets for HbA1c should be agreed for individuals with type 2 diabetes. In these cases, the aspects according to Figure 8 (see LL) should be considered.	■ □

DEGAM or NVL Guideline	Recommendation	
Chronic coronary heart disease (CHD)	PCSK9 inhibitors should not be used routinely in patients with CHD unless the PCSK9 inhibitors are used to avoid lipid apheresis (in accordance with the German Drug Directive, AMRiLi).	■
Dementia	The Drug Directive only permits the prescription of anti-dementia drugs at the expense of the statutory health insurance (GKV/SHI) system if follow-up examinations are carried out and these examinations do not show clear deterioration. Before treatment, the affected persons and, if necessary, their family members/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.	■
Care of Patients with Chronic kidney disease (CKD)	In adult patients who are permanently taking potentially nephrotoxic medications, kidney function should be checked at least once a year.	□
	In patients with CKD (GFR < 60 ml/min/1.73 m2), an evaluation of whether the dosage should be adjusted or if there is a contraindication should be performed before prescribing any new medication.	□
	Long-term primary care	
Sore throat	If antibiotic therapy for the treatment of bacterial tonsillopharyngitis is ineffective after 3-4 days, it may be discontinued (after medical re-evaluation and consideration of differential diagnoses) to minimize the risk of a development of resistance and undesirable side effects.	■
	There is no need for a routine follow-up visit with a physician and follow-up examinations after successful treatment of sore throat.	■
	Re-evaluation should be performed if the condition of a patient with sore throat deteriorates or does not improve after 3-4 days. The following should be considered: ■ Differential diagnoses such as infectious mononucleosis ■ Symptoms or signs indicating a more serious or systemic disease ■ Previous treatment with antibiotics that can lead to resistance	□
Type 2 Diabetes*	People with type 2 diabetes and their physician should jointly agree and prioritize individual therapy goals initially and repeatedly during the course of the disease.	■
	Therapy goals agreed individually with the patient should be evaluated regularly and as needed during the course of treatment and followed up or adjusted according to the results.	□ ■
	Prior to any escalation of therapy, the reasons for non-achievement of previously agreed therapy goals should be evaluated and considered.	■
	In people with type 2 diabetes, therapy de-escalation or a change in the therapy strategy should be regularly assessed, especially: ■ If the negative effects of the therapy on the safety and quality of life of the person concerned outweigh the positive effects; ■ If the individual situation suggests that prognostic aspects play a lesser role than current quality of life; ■ If the individual therapy target was not achieved; ■ in cases of multimorbidity and polymedication; ■ If acute illnesses occur.	■
	De-escalation of insulin therapy should be evaluated in individuals with type 2 diabetes in the following situations: ■ If the indication (e.g. acute illness, metabolic dysfunction, deterioration of renal function) no longer exists; ■ The target values of glucose metabolism are reached or if the values are lower than the target values; ■ Hypoglycemia occurs; ■ The individual therapy goal changes (e.g. as a result of multimorbidity).	■
Chronic coronary heart disease (CHD)	In asymptomatic patients, no specific cardiac diagnostic work-up (including ergometry, echocardiography) should take place to resolve the diagnosis of stenosing CHD.	■

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Multimedication	The medication should be assessed in a structured manner, e.g. using an instrument such as the modified Medication Appropriateness Index (MAI)*, with special consideration of ■ PIM lists/anticholinergic load, QTc time prolonging drugs, ■ Underuse, ■ Adherence.	■
	Each medication review should clarify whether medications are missing or whether they can be discontinued or the dose adjusted.	□ ■
	The medication plan should always be complete and up to date, with the standardised German medication plan (BMP) being the preferred format. Coordination is the responsibility of the primary care physician/physician primarily responsible for the patient's care. The medication plan must be presented at each consultation and at the pharmacy.	■
	The coordinating physician should ensure that each patient with multi-medication has an up-to-date medication plan.	□ ■
Dementia	If one person in the family has dementia, this usually affects the whole family. The subjective suffering of relatives, friends and acquaintances as a result of the index person person's dementia is often greater than that of the affected person. In the primary care of persons with dementia, a special focus should be placed on the specific risks of the 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 for chronic lower back pain after three months at the latest.	■
	The 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 overall care process. That 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: in professional and work activities, participation in social activities, family life; ■ Prevention of specific events (e.g. stroke); ■ Minimizing drug side effects; ■ Reducing the burden of treatments; ■ Life extension. 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 their partner, family members/relatives or caregivers should be involved in important care decisions and to what extent.	□ ■
	If multiple health care professions are involved in the treatment of patients with multimorbidity, the parties involved (the patient, specialists, primary care physician, family members/relatives, the nursing staff) should consult each other with regard to diagnostics and therapy.	□ ■
Caregiving Family Members/ Relatives of Adults	Primary care physicians should take the initiative and organize various occasions and matters of concern to the patient or use perceptions from the medical history in order to conduct an interview with regard to the medical history or arrange a (repeated) assessment of the care situation and burden.	□
	Medical assistants should share observations and information obtained in informal conversations with the primary care physician.	□
Care of Patients with Chronic kidney disease (CKD)	Patients with chronic kidney disease (CKD) (glomerular filtration rate (GFR) < 60 ml/min) should have a medication review of the long-term medication carried out at least once a year.	□

* The recommendations are from the 4th update of the Living Guideline (LG) in 02/2023
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