

Anhang A – Leitliniensynopsis

Leitfragen akuter Husten (AHF)	Synopsis der Quell-Leitlinien	Evidenz/ Empfehlungs- grad
<p>AHF1: Welche Aspekte der Anamnese und der körperlichen Untersuchung sind beim Beratungsanlass akuter Husten in der Hausarztpraxis beim erwachsenen Patienten hilfreich?</p>	<p><u>#19: Classification of Cough as a Symptom in Adults and Management Algorithms: CHEST Guideline and Expert Panel Report</u></p> <p>Empfehlungen:</p> <p>For adult patients complaining of cough, we suggest that acute cough be defined as being < 3 weeks in duration</p> <p>For adult patients complaining of cough, we suggest that subacute cough be defined as being between 3 and 8 weeks in duration</p> <p>Freitexte und Kommentare:</p> <p><i>History and physical examination, ask about environmental and occupational factors and travel exposures ± investigations, a history should be sought for hemoptysis or other potential life- threatening symptoms and, if present, immediately addressed and evaluated, environmental and occupational exposures be considered and addressed if present, as they are in the acute cough algorithm; and patients be routinely followed up</i></p> <p><i>The most common causes of acute cough were respiratory infections, most likely of viral cause, followed by exacerbations of underlying diseases such as asthma and COPD, and pneumonia</i></p>	<p>Grade 2C*</p> <p>Grade 2C*</p>
<p>AHF2: Welche abwendbar gefährlichen Verläufe des akuten Hustens bei erwachsenen Patienten sollten bedacht und ggf. ausgeschlossen werden und wie?</p>	<p><u>#19: Classification of Cough as a Symptom in Adults and Management Algorithms: CHEST Guideline and Expert Panel Report</u></p> <p>Freitexte und Kommentare:</p> <p><i>acute cough: (1) tuberculosis, as a specific infection, be considered in all patients complaining of cough in endemic areas, regardless of cough duration, and in high-risk populations, regardless of cough duration, even if chest radiographs are normal; (2) a history should be sought for hemoptysis or other potential life- threatening symptoms and, if present, immediately addressed and evaluated (ie, red flags); (3) a validated cough severity tool be routinely used to assess the outcome of therapy</i></p> <p><i>Red Flags: Hemoptysis, Smoker > 45 years of age with a new cough, change in cough, or coexisting voice disturbance Adults aged 55-80 years who have a 30 pack-year smoking history and currently smoke or who</i></p>	

	<p><i>have quit within the past 15 years</i></p> <p><i>Prominent dyspnea, especially at rest or at night Hoarseness Systemic symptoms</i></p> <ul style="list-style-type: none"> • <i>Fever</i> • <i>Weight loss</i> • <i>Peripheral Edema with weight gain</i> <p><i>Trouble swallowing when eating or drinking Vomiting</i></p> <p><i>Recurrent pneumonia</i></p> <p><i>Abnormal respiratory exam and/or abnormal chest radiograph coinciding with duration of cough</i></p> <p><i>Subacute cough: include the suggestions that (1) history should be sought for hemoptysis or other potential life-threatening symptoms and, if present, should be immediately addressed and evaluated (ie, red flags); (2) a validated cough severity or quality of life tool be routinely used to assess the outcome of therapy; (3) environmental and occupational exposures be considered and addressed if present,16,17 as they are in the acute cough algorithm; and (3) patients be routinely followed up</i></p>	
<p>AHF3: Welche diagnostischen Instrumente (Scores, Labor etc.) sind bei erwachsenen Patienten hilfreich zum Ausschluss/ Diagnose einer bakteriellen Pneumonie?</p>	<p>Nicht thematisiert</p>	
<p>AHF4: Welche weiterführende Diagnostik (z. B. Bildgebung, Laboruntersuchung) sollte bei erwachsenen Patienten mit akuten Husten in der Hausarztpraxis veranlasst werden?</p>	<p><u>#19: Classification of Cough as a Symptom in Adults and Management Algorithms: CHEST Guideline and Expert Panel Report</u></p> <p>Freitext und Kommentar:</p> <p><i>A validated cough severity tool be routinely used to assess the outcome of therapy</i></p>	

<p>AHF5: Gibt es wirksame medikamentöse therapeutischen Optionen für erwachsene Patienten mit akutem Husten im Rahmen einer Infektion der oberen Atemwege oder einer akuten Bronchitis?</p>	<p>#23: Pharmacologic and Nonpharmacologic Treatment for Acute Cough Associated With the Common Cold: CHEST Expert Panel Report</p> <p>Empfehlungen:</p> <p><i>For adult and pediatric patients with cough due to the common cold, we suggest against the use of over the counter cough and cold medicines until they have been shown to make cough less severe or resolve sooner</i></p> <p><i>In adult patients with cough due to the common cold, we suggest against the use of nonsteroidal anti-inflammatory agents until they have been shown to make cough less severe or resolve sooner.</i></p> <p><i>In pediatric patients (aged < 18 years) with cough due to the common cold, we suggest avoiding use of codeine-containing medications because of the potential for serious side effects including respiratory distress.</i></p> <p>Freitexte und Kommentare:</p> <p><i>We could make no specific recommendation regarding the use of acetylcysteine or carbocysteine for key clinical question, no specific recommendation can be made based on the role of decongestants and antihistamines, we found no evidence to support the use of nonsteroidal anti-inflammatory agents, we found no evidence to support or refute the use of OTC antitussive agents, expectorants, mucolytic agents, antihistamines, or combination products, In addition, concerns about medication safety have led to recommendations regarding the use of some products in specific populations. we reviewed evidence on the use of zinc lozenges in healthy adults and children > 2 years of age; some evidence indicates that when administered within 24 hours of symptoms, they may reduce cough duration.</i></p>	<p>Ungraded Consensus-Based Statements*</p>
<p>AHF6: Gibt es nicht-medikamentöse therapeutischen Optionen für erwachsene Patienten mit akutem Husten im Rahmen einer Infektion der oberen Atemwege oder einer akuten Bronchitis?</p>	<p>#23: Pharmacologic and Nonpharmacologic Treatment for Acute Cough Associated With the Common Cold: CHEST Expert Panel Report</p> <p>Empfehlungen:</p> <p><i>In pediatric patients (aged 1-18 years) with cough due to the common cold, we suggest honey may offer more relief for cough symptoms than no treatment, diphenhydramine, or placebo, but it is not better than dextromethorphan (Ungraded Consensus-Based Statement).</i></p> <p>Freitexte und Kommentare:</p> <p><i>We suggested that honey may offer more relief than diphenhydramine, no treatment, or placebo; however, honey is not more effective than dextromethorphan for adults and children.</i></p>	<p>Ungraded Consensus-Based Statement*</p>

Leitfragen chronischer Husten (CHF)	Synopsis der Quell-Leitlinien	Evidenz/ Empfehlungs- grad
<p>CHF1: Welche Aspekte der Anamnese und der körperlichen Untersuchung sind beim Beratungsanlass chronischer Husten in der Hausarztpraxis beim erwachsenen Patienten hilfreich?</p>	<p>#19: Classification of Cough as a Symptom in Adults and Management Algorithms: CHEST Guideline and Expert Panel Report</p> <p>Empfehlung:</p> <p><i>For adult patients complaining of cough, we suggest that chronic cough be defined as being > 8 weeks in duration</i></p> <p>Freitext und Kommentare:</p> <p><i>History to include</i></p> <ul style="list-style-type: none"> • Red flags • Occupational / Environmental Issues • Travel Exposures <p><i>Physical Exam Chest radiograph AND to include the suggestions that (1) history should be sought for hemoptysis or other potential life-threatening symptom and, if present, should be immediately addressed and evaluated (ie, red flags); (2) a validated cough severity tool be routinely used to assess outcome of therapy; (3) environmental and occupational exposures be considered and addressed if present, as they are in the acute cough algorithm; (4) recognition that acid suppression alone is no longer recommended for treating cough due to gastroesophageal reflux disease²⁹; (5) sitagliptin,³⁰ as well as angiotensin-converting enzyme inhibitors, be discontinued to see if the drug is responsible for the cough; (6) patients be routinely followed in the clinic within 4 to 6 weeks after the initial evaluation</i></p> <p><i>Upper Airway Cough Syndrome (UACS) secondary to rhinosinus diseases</i></p> <p><i>Consider:</i></p> <ul style="list-style-type: none"> • Sinus imaging • Nasopharyngoscopy <p><i>Allergy evaluation or empiric treatment Asthma</i></p> <p><i>Ideally evaluate:</i></p> <ul style="list-style-type: none"> • Spirometry • Bronchodilator reversibility • Bronchoprovocation challenge • Allergy evaluation or empiric treatment <p><i>Non-asthmatic Eosinophilic Bronchitis (NAEB)</i></p>	<p>Grade 2C*</p>

Ideally evaluate:

- *Sputum eosinophilia*
- *Fraction exhaled nitric oxide (FENO)*
- *Allergy evaluation or empiric treatment*

Gastroesophageal Reflux Disease (GERD)

Physiologic testing for refractory patients

Initial treatment to include:

- *More than acid suppression*

The most common causes of chronic cough were UACS from a variety of rhinosinus conditions, asthma, gastroesophageal reflux disease, nonasthmatic eosinophilic bronchitis, combinations of these four conditions, and less commonly, a variety of miscellaneous conditions and atopic cough in Asian countries.

#11: Treatment of unexplained chronic cough: CHEST guideline and expert panel report

Empfehlung:

In adult patients with chronic cough, we suggest that unexplained chronic cough be defined as a cough that persists longer than 8 weeks, and remains unexplained after investigation, and supervised therapeutic trial(s) conducted according to published best-practice guidelines

Freitexte und Kommentare:

Unexplained or refractory or idiopathic or intractable cough: Patients were required to have an assessment for associated diseases that could cause chronic cough (eg, chronic lung disease) and diseases commonly associated with cough (eg, asthma, rhinosinusitis, GERD, ACEI use). The assessment could involve physician assessment; relevant investigations that were negative, leading to a diagnosis of unexplained or idiopathic cough; or relevant treatment trials that were negative or the cough was refractory to the treatment trial, leading to a diagnosis of refractory cough or intractable cough

#36: ERS guidelines on the diagnosis and treatment of chronic cough in adults and children 2020

Freitexte und Kommentare:

History taking and physical examination on presentation:

Cough duration

Cough impact and triggers

Family history

Ungraded
Consensus-
Based
Statement*

Cough score (using VAS or verbal out of 10)

HARQ

Associated symptoms: throat, chest, gastrointestinal

Risk factors: ACE inhibitor, smoking, sleep apnoea

Physical examination: throat, chest, ear

Routine evaluation

Chest radiography

Pulmonary function test, (FeNO, Blood count for eosinophils)

Initial management:

Stop risk factors, Initiate corticosteroids (oral or inhaled) or LTRA, particularly when FeNO or blood eosinophils high, Initiate PPI only when peptic symptoms or evidence of acid reflux are present.

CHF2: Welche weiterführende Diagnostik sollte bei erwachsenen Patienten mit chronischen Husten in der Hausarztpraxis veranlasst werden?

#19: Classification of Cough as a Symptom in Adults and Management Algorithms: CHEST Guideline and Expert Panel Report

Freitexte und Kommentare:

Radiologische Untersuchung des Thorax DANN je nach DD:

Upper Airway Cough Syndrome (UACS) secondary to rhinosinus diseases

Consider:

- *Sinus imaging*
- *Nasopharyngoscopy*
- *Allergy evaluation or empiric treatment*

Asthma, Ideally evaluate:

- *Spirometry*
- *Bronchodilator reversibility*
- *Bronchoprovocation challenge*
- *Allergy evaluation or empiric treatment*

Non-asthmatic Eosinophilic Bronchitis (NAEB), Ideally evaluate:

- *Sputum eosinophilia*
- *Fraction exhaled nitric oxide (FeNO)*
- *Allergy evaluation or empiric treatment*

Gastroesophageal Reflux Disease (GERD), Physiologic testing for refractory patients

Initial treatment to include:

- *More than acid suppression*

Further Examinations:

- 24h esophageal pH / Impedance monitoring
- Endoscopic and/or video uroscopic swallow evaluation • Barium esophagram / Modified barium swallow
- Sinus Imaging
- HRCT
- Bronchoscopy
- Cardiac Work-up (ECG, Holter Monitoring, Echo)
- Environmental / Occupational Assessment
- Consider uncommon causes

#23: Treatment of unexplained chronic cough: CHEST guideline and expert panel report

Empfehlung:

In adult patients with chronic cough, we suggest that patients with chronic cough undergo a guideline/ protocol based assessment process that includes objective testing for bronchial hyperresponsiveness and eosinophilic bronchitis, or a therapeutic corticosteroid trial

Freitexte und Kommentare:

Unexplained or refractory or idiopathic or intractable cough: Patients were required to have an assessment for associated diseases that could cause chronic cough (eg, chronic lung disease) and diseases commonly associated with cough (eg, asthma, rhinosinusitis, GERD, ACEI use). The assessment could involve physician assessment; relevant investigations that were negative, leading to a diagnosis of unexplained or idiopathic cough; or relevant treatment trials that were negative or the cough was refractory to the treatment trial, leading to a diagnosis of refractory cough or intractable cough

#36: ERS guidelines on the diagnosis and treatment of chronic cough in adults and children 2020

Empfehlung:

We suggest that clinicians do not routinely perform a chest CT scan in patients with chronic cough who have a normal chest radiograph and physical examination.

Freitexte und Kommentare:

Further investigations for asthma, eosinophilic bronchitis, reflux and oesophageal dysmotility and rhinosinusitis should be considered, depending on the clinical history (figure 1). Additional evaluation where indicated High-

Ungraded
Consensus-
Based
Statement*

Very low**

resolution oesophageal manometry, Induced sputum for eosinophils, Sputum AAFB, Laryngoscope, Methacholine challenge, Chest CT, Bronchoscopy

CHF3: Welche abwendbar gefährlichen Verläufe sollten bei erwachsenen Patienten mit chronischen Husten bedacht und ggf. ausgeschlossen werden und wie?

#19: Classification of Cough as a Symptom in Adults and Management Algorithms: CHEST Guideline and Expert Panel Report

Freitexte und Kommentare:

Red Flags:

*Hemoptysis, Smoker > 45 years of age with a new cough, change in cough, or coexisting voice disturbance
Adults aged 55-80 years who have a 30 pack-year smoking history and currently smoke or who have quit within the past 15 years*

Prominent dyspnea, especially at rest or at night Hoarseness

Systemic symptoms

- *Fever*
- *Weight loss*
- *Peripheral Edema with weight gain*

Trouble swallowing when eating or drinking Vomiting, Recurrent pneumonia, Abnormal respiratory exam and/or abnormal chest radiograph coinciding with duration of cough

AND to include the suggestions that (1) history should be sought for hemoptysis or other potential life-threatening symptom and, if present, should be immediately addressed and evaluated (ie, red flags); (2) a validated cough severity tool be routinely used to assess outcome of therapy; (3) environmental and occupational exposures be considered and addressed if present, as they are in the acute cough algorithm; (4) recognition that acid suppression alone is no longer recommended for treating cough due to gastroesophageal reflux disease²⁹; (5) sitagliptin,³⁰ as well as angiotensin-converting enzyme inhibitors, be discontinued to see if the drug is responsible for the cough; (6) patients be routinely followed in the clinic within 4 to 6 weeks after the initial evaluation

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Freitexte und Kommentare:

The consequence of chronic cough is a wide range of complications of coughing. Most impactful on health-related quality of life (HRQoL) are stress urinary incontinence, interference with speech, and depression. However, there are many others that can be equally bothersome, such as syncope. Individuals report, on average, eight adverse symptoms associated with cough.

	<p><i>Stress urinary incontinence is particularly impactful, as cough affects females disproportionately compared to males. Female patients with cough and urinary incontinence have worse HRQoL compared to those without incontinence. In a quarter of patients, the incontinence is severe but rarely discussed. Thus incontinence should be enquired about during a consultation.</i></p>	
<p>CHF4: Wann sollten erwachsene Patienten mit chronischen Husten an Spezialisten überwiesen werden?</p>	<p><u>#19: Classification of Cough as a Symptom in Adults and Management Algorithms: CHEST Guideline and Expert Panel Report</u></p> <p>Freitexte und Kommentare:</p> <p><i>Patients should be routinely followed in the clinic within 4 to 6 weeks after the initial evaluation; and referral to a well-recognized cough clinic should be considered for the refractory unexplained chronic cough.</i></p>	
<p>CHF5: Was kann erwachsenen Patienten mit chronischem Husten angeboten werden, wenn keine Ursache gefunden wird?</p>	<p><u>#19: Classification of Cough as a Symptom in Adults and Management Algorithms: CHEST Guideline and Expert Panel Report</u></p> <p>Freitexte und Kommentare:</p> <p><i>Reminders:</i></p> <ul style="list-style-type: none"> • <i>Check for red flags and address them – see Red Flags box</i> • <i>Optimize therapy for each diagnosis</i> • <i>Check compliance during regularly scheduled and frequent follow ups (assess for patient barriers to enactment or receipt of instructions)</i> • <i>Due to the possibility of multiple causes, maintain all partially effective treatment</i> • <i>Routinely assess for environmental and occupational factors</i> • <i>Routinely assess cough severity & quality of life with validated tools</i> • <i>Routinely follow up with patient in 4-6 weeks</i> • <i>Consider a referral to a Cough Clinic for refractory cough</i> <p><u>#11: Treatment of unexplained chronic cough: CHEST guideline and expert panel report</u></p> <p>Empfehlungen:</p> <p><i>In adult patients with unexplained chronic cough, we suggest a therapeutic trial of gabapentin as long as the potential side effects and the risk-benefit profile are discussed with patients before use of the medication, and there is a reassessment of the risk- benefit profile at 6 months before continuing the drug.</i></p>	<p>Grade 2C*</p>

In adult patients with unexplained chronic cough and a negative workup for acid gastroesophageal reflux disease, we suggest that proton pump inhibitor therapy not be prescribed.

Grade 2C*

Freitexte und Kommentare:

Although gabapentin and morphine exhibited positive effects on cough-related quality of life, only gabapentin was supported as a treatment recommendation. Studies of inhaled corticosteroids (ICS) were affected by intervention fidelity bias; when this factor was addressed, ICS were found to be ineffective for UCC. Esomeprazole was ineffective for UCC without features of gastroesophageal acid reflux. Speech pathology-based cough suppression is suggested as a treatment option for UCC.

Nonpharmacologic therapies: a multimodality speech pathology-therapy based intervention was identified.

Inhaled corticosteroids (ICS): this strategy targets airway inflammation, predominantly eosinophilic inflammation that occurs in asthma, rhinitis, and nonasthmatic eosinophilic bronchitis.

Neuromodulatory therapies: this group included therapies with known action on neural pathways, such as amitriptyline, gabapentin, and morphine. Neuromodulatory agents are believed to act on the enhanced neural sensitization that is a key component of unexplained cough. Each of the centrally acting neuromodulators (amitriptyline, gabapentin, and morphine) had positive effects on cough-specific quality of life.

Other therapies: esomeprazole, erythro- mycin, ibuprofen, and ipratropium. Erythromycin: macrolides did not improve quality of life in patients with UCC. Placebo: There can be a significant placebo effect in cough trials.

Neue Therapien: There are now numerous targets for novel therapeutic agents in UCC. These include peripheral targets, as well as the brainstem and cerebral cortex. The optimal site to target with intervention is not known.

A RCT of a TRPV1 antagonist observed a significant reduction in capsaicin cough reflex sensitivity.²⁴ No changes in cough severity or quality of life were observed

#36: ERS guidelines on the diagnosis and treatment of chronic cough in adults and children 2020

Empfehlungen:

We recommend a trial of low-dose morphine (5–10 mg twice daily) in adult patients with chronic refractory cough.

Moderate**

We suggest a trial of gabapentin or pregabalin in adult patients with chronic refractory cough.

Low**

We suggest a trial of cough control therapy in adult patients with chronic cough. Level of Evidence: Moderate

Moderate**

We suggest a trial of antibiotics in children with chronic wet cough with normal chest radiographs, normal spirometry and no warning signs.

Low**

***American College of Chest Physicians classification scheme for grading evidence in clinical guidelines:** 1A: Strong recommendation, high-quality evidence, 1B: Strong recommendation, moderate-quality evidence, 1C: Strong recommendation, low-quality or very low-quality evidence 2A Weak recommendation, high-quality evidence, 2B: Weak recommendation, moderate-quality evidence, 2C: Weak recommendation, low-quality or very low-quality evidence

**** The Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach:** High: We are very confident that the true effect lies close to that of the estimate of the effect, Moderate: We are moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different, Low : Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect, Very low: We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect