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# DHA TELEHEALTH CLINICAL GUIDELINES

## FOR VIRTUAL MANAGEMENT OF

### COMMON COLD - 03

**Issue date:** 27/07/2021

**Effective date:** 27/07/2021

Health Policies and Standards Department  
Health Regulation Sector (2021)

## INTRODUCTION

Dubai Health Authority (DHA) is the responsible entity for regulating, licensing and monitoring health facilities and healthcare professionals in the Emirate of Dubai. The Health Regulation Sector (HRS) is an integral part of DHA and was founded to fulfil the following overarching strategic objectives:

Objective #1: Regulate the Health Sector and assure appropriate controls are in place for safe, effective and high-quality care.

Objective #2: Position Dubai as a global medical destination by introducing a value-based, comprehensive, integrated and high-quality service delivery system.

Objective #3: Direct resources to ensure happy, healthy and safe environment for Dubai population.

## ACKNOWLEDGMENT

This document was developed for the Virtual Management of Common Cold in collaboration with Subject Matter Experts. The Health Policy and Standards Department would like to acknowledge and thank these professionals for their dedication toward improving the quality and safety of healthcare services.

### The Health Regulation Sector

### Dubai Health Authority

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## EXECUTIVE SUMMARY

Telehealth is based on Evidence Based Practice (EBP) which is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patient.

It means integrating individual clinical expertise with the best available external clinical evidence and guidelines from systematic research.

EBP is important because it aims to provide the most effective care virtually, with the aim of improving patient outcomes. As health professionals, part of providing a professional service is ensuring that practice is informed by the best available evidence.

This guideline is presented in the format comprising of clinical history/symptoms, differential diagnosis, investigations and management. Identification of 'Red Flags' or serious conditions associated with the disease is an essential part of this telehealth guideline as it aids the physician to manage patients safely and appropriately by referrals to ER, family physicians or specialists for a face to face management.

Common cold or acute nasopharyngitis is a very common viral infection most commonly caused by Rhinovirus involving the upper respiratory tract and spreads by coughing sneezing and close contact. It is a self-limiting condition which normally settles within 1-2 weeks. It should be noted that the term "common cold" refers to a mild upper respiratory viral illness. The common cold is a separate and distinctly different entity than influenza, pharyngitis, acute bronchitis, acute bacterial rhinosinusitis, allergic rhinitis, and pertussis.

## DEFINITIONS/ABBREVIATIONS

**Virtual Clinical Assessment:** Is the evaluation of the patient's medical condition virtually via telephone or video call consultations, which may include one or more of the following: patient medical history, physical examination and diagnostic investigations.

**Patient:** The person who receives the healthcare services or the medical investigation or treatment provided by a DHA licensed healthcare professional.

## ABBREVIATIONS

<b>DHA</b>	:	Dubai Health Authority
<b>EBP</b>	:	Evidence Based Practice
<b>ER</b>	:	Emergency Room
<b>NSAIDs</b>	:	Nonsteroidal Anti-Inflammatory Drugs
<b>RSV</b>	:	Respiratory Syncytial Virus

## 1. BACKGROUND

1.1. The risk factors to develop common cold are as follows:

1.1.1. Anyone can develop common cold when exposed to the viruses and the symptoms depend upon the age, co-morbidities and immune status of patients. A normal healthy person might develop mild symptoms for few days but on the other hand, neonates and old age people with long term conditions could have severe symptoms needing quick medical treatment.

1.1.2. Psychological stress increases the risk of colds

1.1.3. Moderate physical exercise decreases the risk

1.1.4. Individuals who have less sleep and pre-existing sleep disturbances may have an increased susceptibility to cold virus infection

1.1.5. There is no scientific basis for the popular notion that a cold climate increases susceptibility to respiratory illness

1.2. Risk factors for increased severity of upper respiratory infection (URI) include:

1.2.1. Underlying chronic diseases

1.2.2. Congenital immunodeficiency disorders

1.2.3. Malnutrition

1.2.4. Cigarette smoking

## 2. SCOPE

2.1. Telehealth services in DHA licensed Health Facilities.

### 3. PURPOSE

- 3.1. To support the implementation of Telehealth services for patients with complaints of Common Cold in Dubai Health Authority (DHA) licensed Health Facilities

### 4. APPLICABILITY

- 4.1. DHA licensed physicians and health facilities providing Telehealth services.
- 4.2. Exclusion for Telehealth services are as follows
  - 4.2.1. Emergency cases where immediate intervention or referral is required.
  - 4.2.2. Prescribe Narcotics, Controlled or Semi-Controlled medications.

### 5. RECOMMENDATIONS

- 5.1. Virtual Clinical Assessment
  - 5.1.1. The intensity and type of symptoms of the common cold may be related to host factors including age, underlying illnesses, and prior immunological experience, as well as to the type of infecting virus
  - 5.1.2. However, as compared to Influenza, common cold symptoms are less severe and develop gradually over few days whereas in Influenza the symptoms are severe and rapid in onset.
  - 5.1.3. Symptoms (which may substantially vary from patient to patient) include:
    - a. Rhinitis and nasal congestion are most common. In fact, colored nasal discharge is a normal self-limited phase of the uncomplicated common

cold. The presence of purulence alone cannot distinguish between a cold or sinus infection

- b. Cough is common and tends to appear after the onset of nasal discharge and obstruction. When present, cough often persists past the time that nasal and throat symptoms resolve. Although cough may be prominent and prolonged in some patients, rales and signs of lower respiratory tract involvement typically are not present in adults.
  - c. sneezing
  - d. dry or "scratchy throat"
  - e. malaise
  - f. headache
  - g. pressure or discomfort in their ears and face
  - h. loss of taste and smell
  - i. Fever is uncommon in adults with a cold but may be present in children. Fever, when present, tends to be low grade.
  - j. Video call - may reveal conjunctival injection and pharyngeal erythema. Adenopathy is typically absent or minimal and, in the absence of secondary bronchospasm, the lung examination is typically clear.
- The above symptoms are the same in adults & children. Symptoms may last longer in children.



## 6. RED FLAGS

- 6.1. Cough < 2 weeks
- 6.2. Persistent cough in a smoker
- 6.3. Hemoptysis
- 6.4. Persistent hoarseness >2 weeks
- 6.5. Persistent sore throat
- 6.6. Persistent palpable neck lumps
- 6.7. Persistent unilateral enlarged tonsil
- 6.8. Difficulty completing sentences
- 6.9. Difficulty swallowing (particularly own saliva)
- 6.10. Shortness of breath
- 6.11. Pleuritic chest pain
- 6.12. Headache, photophobia and neck stiffness
- 6.13. Non-blanching rash
- 6.14. Nasal flaring/grunting in babies
- 6.15. Recession of intercostal muscles in young children

## 7. DIFFERENTIAL DIAGNOSIS

Although the common cold is usually diagnosed clinically and readily identified by symptoms, several other conditions may mimic the common cold:

- 7.1. Allergic or seasonal rhinitis

Allergic rhinitis is inflammation of the inside of the nose caused by an allergen, such as pollen, dust, molds or flakes of skin from certain animals. It's a very common condition. Allergic rhinitis typically causes sneezing, itchiness and a blocked or runny nose with watery nasal discharge. These symptoms usually start soon after being exposed to an allergen. Normally there is no fever, muscle aches and body pains. Systemic antihistamines and intranasal corticosteroids are the mainstay of treatment

#### 7.2. Bacterial pharyngitis or tonsillitis

The common cold can be differentiated from bacterial tonsillitis or Pharyngitis by the presence of prominent rhinorrhea and nasal stuffiness.

Majority of these infections are caused by viruses but some of them are caused by bacteria like streptococci and antibiotics are needed for them. When there is strong suspicion of bacterial pharyngitis or tonsillitis like high fever absence of cough, and positive anterior cervical lymph nodes enlargement, then patient should be treated with antibiotics prescription after getting throat swab for rapid antigen test and culture sensitivity test.

#### 7.3. Acute bacterial rhinosinusitis

Patients with the common cold may also develop acute rhinosinusitis. Viral sinusitis occurs far more frequently than secondary bacterial sinusitis. Patients with acute rhinosinusitis have purulent nasal discharge and nasal obstruction or facial pain/pressure/fullness or both. However, these symptoms may also occur to a

variable degree in patients with a simple common cold. Acute bacterial rhinosinusitis is diagnosed with X-ray of sinuses and sinus lavage and treated with antibiotics and nasal decongestants along with fever and pain medicines.

#### 7.4. Influenza

Seasonal influenza is an acute respiratory illness caused by influenza A or B viruses. Influenza occurs in outbreaks and epidemics worldwide, mainly during the winter season. Although acutely debilitating, influenza is usually a self-limited infection. However, it is associated with increased morbidity and mortality in certain high-risk populations. Treatment involves lab tests, isolation and antiviral medications like Oseltamivir.

#### 7.5. Pertussis

Pertussis, also known as "whooping cough," is a highly contagious acute respiratory illness caused by *Bordetella pertussis*. In the pre-vaccine era, the disease predominantly affected children <10 years of age and usually manifested as a prolonged cough illness with one or more of the classical symptoms including inspiratory whoop, paroxysmal cough, and posttussive emesis. Since the introduction of pertussis vaccines, the epidemiology of reported pertussis infections has changed. Treatment involves referral to clinic for appropriate face to face assessment and antibiotic treatment which reduces the symptoms and spread of infection to healthy population.

## 8. COMPLICATIONS

8.1. Lower respiratory tract disease — Most patients with common colds do not have lower respiratory tract signs or symptoms. However, certain pathogens that cause the common cold, particularly respiratory syncytial virus (RSV) and parainfluenza virus, can also produce lower respiratory tract findings. These findings can range from bronchitis, to bronchiolitis, to pneumonia. For example, RSV is an important cause of lower respiratory tract disease among children, older adults, and immunocompromised patients in addition to its ability to trigger symptoms of the common cold.

8.2. Asthma exacerbation — Viral upper respiratory infections (URIs) have also been linked to up to 40% of acute asthma attacks in adults. It is uncertain whether increased airway hyperreactivity is the result of local inflammation caused by viral infection of lower airway epithelial cells, or if infection is limited to the upper airway with inflammatory mediators acting distantly in the lower airways. Rhinovirus has emerged as the most frequent common cold virus associated with asthma exacerbations. Rhinovirus-induced changes in airway reactivity may persist for up to four weeks following infection. These changes in airway reactivity may explain why some individuals develop a persistent cough following upper respiratory tract infections. However, other

causes of cough, such as pertussis, should be considered when individuals develop persistent cough following a presumed viral respiratory tract infection.

- 8.3. Acute otitis media — Viral URI often causes eustachian tube dysfunction; impaired clearance and pressure regulation of the middle ear may then lead to acute otitis media. Although otitis media following URI is more common in children than adults, according to several studies 50 to 80% of normal adults developed eustachian tube dysfunction after they were experimentally exposed to rhinovirus or influenza A virus. In addition to inducing eustachian tube disturbance, respiratory viruses can be isolated directly from middle-ear fluid, suggesting that viruses may also actively invade the middle ear and cause acute otitis media.

## 9. INVESTIGATIONS

- 9.1. The diagnosis of the common cold is clinical, based on reported symptoms and/or the observed signs.
- 9.2. Radiologic studies are not routinely indicated. Chest radiograph is mandatory if symptoms or signs are suggestive of lower respiratory tract infection
- 9.3. Viral or bacterial cultures from nasal swabs or washings are not indicated.

## 10. MANAGEMENT

- 10.1. Refer to APPENDIX 1 for the Virtual Management of Common Cold Algorithm
- 10.2. Symptomatic therapy remains the mainstay of common cold treatment. Patients with moderate to severe symptoms may use a variety of therapies to relieve symptoms.

Commonly considered interventions with sufficient data available for evaluation are discussed below.

10.3. Therapies that may be effective: The following therapies may be effective and are options for patients with moderate to severe symptoms. Choice of therapy will depend on what symptoms predominate and patient preference. We do not favor any one of the following treatments over others.

10.3.1. Analgesics — Available data suggest that paracetamol and nonsteroidal anti-inflammatory drugs (NSAIDs) are roughly equivalent at relieving some symptoms (e.g., headache, ear pain, muscle and joint pains and malaise) associated with common cold, and that short courses of standard doses in this setting are generally safe and well-tolerated. A meta-analysis found that NSAIDS did not improve cough or nasal discharge and did not significantly reduce the total symptom score or duration of colds. Examples include Ibuprofen 400 mg TDS (or 600 mg BID) Naproxen 250 – 500 mg BID

10.3.2. Antihistamine/decongestant combinations — The combination of antihistamines and decongestants may be more beneficial than either component alone. Antihistamine use alone in patients with the common cold, however, is of minimal benefit and frequently results in troublesome

side effects such as drowsiness, dry mouth, insomnia, and dizziness.

Examples includes Pseudoephedrine / Loratadine 5mg 1tab BID

10.3.3. Intranasal/inhaled cromolyn sodium — Cromolyn sodium administered intranasally and/or by inhalation may improve cold symptoms. Dosage to be used Sodium cromoglycate dry powder (20 mg per inhalation in spincaps) QDS Sodium cromoglycate aqueous nasal spray (5.2 mg per dose) QDS

10.3.4. Intranasal ipratropium bromide — Symptoms of rhinorrhea and sneezing may be improved by the use of intranasal ipratropium bromide, though nasal congestion is not affected. Dose include: Nasal spray 20 mcg, 2 sprays per nostril up to 4 times a day

10.4. Therapies with minimal or uncertain benefits: It is recommended to start treatment with therapies that may be effective. Treatments for which the balance of benefits to harms seems small or uncertain may be reasonable options in some patients who are not able to tolerate the more effective therapies.

10.4.1. Decongestants—Topical and oral decongestants, such as pseudoephedrine, may offer mild relief of nasal congestion associated with the common cold when used alone. A 2007 metaanalysis suggested a net 6% decrease in subjective symptoms after a single dose of decongestant compared with use of a placebo. Repeated doses of nasal decongestants

produced a small and probably clinically insignificant benefit (approximately 4%) over 3 to 5 days.

- a. Oral – Phenylephrine is less effective than pseudoephedrine for treatment of rhinitis symptoms. Most studies suggest that 10 mg of phenylephrine (the dose commonly used in most cold products) is not more effective than placebo.
- b. Topical – Topical decongestant use should be limited to 2 to 3 days because rebound rhinitis can occur after 72 hours of use. The use of topical decongestants may occasionally be complicated by nosebleeds, agitation, insomnia, and worsened hypertensive control in patients with pre-existing hypertension.

10.4.2. Saline nasal spray — Saline nasal sprays may help nasal symptoms of the common cold. A 2015 systematic review of saline nasal irrigation for acute upper respiratory infections concluded that there may be symptomatic benefits, but there was limited evidence to support this conclusion, as the available trials were small and had a high risk of bias.

10.4.3. Expectorants — The expectorant guaifenesin had a marginal effect compared with placebo in one randomized trial. However, a 2014 systematic review concluded that there was no good evidence for or



against the effectiveness of over-the-counter medications (including guaifenesin, mucolytics, and combination medications) for acute cough.

10.4.4. Herbal products — A herbal preparation derived from the roots of *Pelargonium sidoides* (EPs 7630) has been evaluated in two randomized trials and reported to reduce symptom severity in the common cold, as well as in acute bronchitis. However, further studies are indicated before this preparation can be recommended.

10.4.5. Zinc — Although zinc sulfate lozenges and syrup may decrease cold symptom severity and duration, it is recommended not to use zinc preparations because of uncertain benefits and known toxicities, including irreversible anosmia when administered intranasally. Systematic reviews have found that zinc intake is associated with a reduction in the duration and severity of cold symptoms.

## 10.5. Ineffective Therapies

10.5.1. Evidence does not support the use of these therapies for treatment of the common cold.

- a. Antibiotic therapy
- b. Antihistamines
- c. Vitamins and herbal remedies - Vitamin C – is often touted as a natural remedy for the common cold. A 2013 meta-analysis showed that

vitamin C given therapeutically after symptom onset did not reduce symptom duration or severity.

- d. Intranasal glucocorticoids
- e. Heated, humidified air

## 11. REFERRAL CRITERIA

### 11.1. Refer to Family Physician/ Specialist

11.1.1. Cough >2 weeks

11.1.2. Symptoms do not improve after 1 week

11.1.3. Persistent sore throat

11.1.4. Persistent hoarseness >2 weeks

11.1.5. Persistent cough in a smoker

11.1.6. Immune compromised patients receiving chemotherapy or systemic corticosteroids

11.1.7. Symptoms unresponsive to OTC medicines, or new symptoms suggesting complications (e.g. otitis media, sinusitis, chronic bronchitis, exacerbations of reactive airway disease)

11.1.8. If presenting symptoms/condition require imaging based on clinical decision

11.1.9. Persistent palpable neck lumps

### 11.2. Refer to ER

- 11.2.1. Difficulty completing sentences
  - 11.2.2. Difficulty swallowing (particularly own saliva)
  - 11.2.3. Shortness of breath
  - 11.2.4. Pleuritic chest pain
  - 11.2.5. Headache associated with photophobia and neck stiffness
  - 11.2.6. Non-blanching rash
  - 11.2.7. Very high temperature or rigors
  - 11.2.8. Nasal flaring/grunting in babies
  - 11.2.9. Severe dehydration
  - 11.2.10. Hemoptysis
  - 11.2.11. Severe lethargy, fits or focal neurological findings
  - 11.2.12. Recession of intercostal muscles in young children (during video consultation)
- 11.3. Consider referral if:
- 11.3.1. People with nasal allergies and chronic conditions like sinusitis, nasal polyps and defects of nasal septum
  - 11.3.2. If the patient is having long-term medical condition – for example, diabetes, or a heart, lung, kidney or neurological disease

## 12. PREVENTION

12.1. Most prevention strategies for the common cold have focused on the use of vitamins, minerals, herbs, and lifestyle changes. However, no vitamin or herbal product has been shown conclusively to impact the incidence of the common cold.

12.2. Hand hygiene — Hygienic techniques such as handwashing have been shown to prevent the spread of respiratory viruses, especially from younger children.

12.3. Ineffective or uncertain preventive therapies

12.3.1. Probiotics — Higher-quality, specific trials are needed before concluding whether probiotics have a role in the prevention of respiratory tract infections in adults.

12.4. Exercise — There have been conflicting reports regarding the efficacy of exercise in preventing the common cold. There was no effect of exercise on the incidence of acute respiratory illness, severity of symptoms, or missed work days, although there were trends toward a positive effect; meditation was associated with self-reported decreased global symptom severity and fewer missed days.

12.5. Sleep — There are some data suggesting that duration of sleep influences overall risk of developing the common cold. However, this data is not proven.

12.6. Vitamins

12.6.1. Vitamins like Vitamin C, D, E - studies have shown conflicting reports on their efficacy

- 12.7. Face masks — Health care workers in Asia often wear surgical-type face masks to prevent their acquisition of respiratory tract infections. Such masks are increasingly used by travelers for the same purpose. A randomized trial of the use of these masks by health care workers in a hospital in Japan found no difference in the self-reported frequency of colds between groups assigned to the mask or no mask. Subjects assigned to wear masks were significantly more likely to experience headaches during the study period.
- 12.8. Herbal products — No herbal product has been conclusively shown to significantly impact the incidence of the common cold.
- 12.9. Gargling – A randomized trial in 387 healthy adults compared self-reported symptoms of upper respiratory infection over 60 days in three groups: usual care (controls), gargling with water three times daily, and gargling with povidone-iodine. Patients who gargled with water, compared with controls, reported fewer incidents of cold symptoms (hazard ratio [HR] 0.64, 95% CI 0.41-0.99) while no effect was seen for those who gargled with povidone. The subjective outcome in this unblinded trial call into question the validity of these findings.

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## APPENDIX 1 – VIRTUAL MANAGEMENT OF COMMON COLD ALGORITHM

