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# DHA TELEHEALTH CLINICAL GUIDELINES

## FOR VIRTUAL MANAGEMENT

### OF ALLERGIC RHINITIS - 01

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## 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 Allergic Rhinitis 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

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>4</b>
<b>DEFINITIONS/ABBREVIATIONS</b>	<b>5</b>
<b>1. BACKGROUND</b>	<b>6</b>
<b>2. SCOPE</b>	<b>6</b>
<b>3. PURPOSE</b>	<b>7</b>
<b>4. APPLICABILITY</b>	<b>7</b>
<b>5. RECOMMENDATION</b>	<b>7</b>
<b>6. CLINICAL HISTORY/SYMPTOMS</b>	<b>8</b>
<b>7. RED FLAGS</b>	<b>9</b>
<b>8. DIFFERENTIAL DIAGNOSIS</b>	<b>10</b>
<b>9. INVESTIGATIONS</b>	<b>11</b>
<b>10. MANAGEMENT</b>	<b>11</b>
<b>11. COMPLICATIONS</b>	<b>14</b>
<b>12. REFERRAL CRITERIA</b>	<b>14</b>
<b>REFERENCES</b>	<b>16</b>
<b>APPENDIX – VIRTUAL MANAGEMENT OF ALLERGIC RHINITIS ALGORITHM</b>	<b>17</b>

## 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, if indicated during virtual telehealth assessment, to ER, family physicians or specialists for a face to face management.

Rhinitis is defined as inflammation of the nasal mucous membranes and is characterized by a symptom complex that consists of any combination of sneezing, nasal congestion, nasal itching, and rhinorrhoea. The eyes, ears, sinuses, and throat can also be involved. Allergic rhinitis is the most common cause of rhinitis. It is an extremely common condition affecting adults and children worldwide.

Although allergic rhinitis is not a life-threatening condition, complications can occur and the condition can significantly impair quality of life.

## DEFINITIONS

**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>RM</b>	:	Rhinitis Medicamentosa

## 1. BACKGROUND

### 1.1. Risk Factors & Causes

1.1.1. The causes of allergic rhinitis may differ depending on whether the symptoms are seasonal, perennial, or sporadic/episodic. Some patients are sensitive to multiple allergens and can have perennial allergic rhinitis with seasonal exacerbations.

- a. Seasonal allergic rhinitis is caused by allergy to seasonal pollens and outdoor moulds.
- b. Pollens (tree, grass, and weed)
- c. Perennial allergic rhinitis is typically caused by allergens within the home but can also be caused by outdoor allergens that are present year-round.  
House dust mites
- d. Pets like cats and dogs
- e. Cockroaches
- f. Rodents
- g. Rodent infestation may be associated with allergic sensitization.
- h. Sporadic allergic rhinitis
- i. Occupational allergic rhinitis

## 2. SCOPE

2.1. Telehealth services in DHA licensed Health Facilities.

### 3. PURPOSE

- 3.1. To support the implementation of best practice in Telehealth services for patients with complaints of Allergic Rhinitis 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. RECOMMENDATION

- 5.1. Virtual Clinical Assessment
- 5.1.1. The following symptoms are suggestive of allergic rhinitis on history:
- a. Sneezing
  - b. Itching: Nose, eyes, ears, palate
  - c. Rhinorrhoea
  - d. Postnasal drip
  - e. Congestion
  - f. Anosmia
  - g. Headache
  - h. Earache

- i. Tearing
- j. Red eyes
- k. Eye swelling
- l. Fatigue • Drowsiness
- m. Malaise
- n. Allergic conjunctivitis may also be present

5.1.2. It should be noted that symptoms can arise within minutes of allergen exposure and may last for a couple of hours. A careful history should include when symptoms start and whether there are factors that precede the onset of symptoms. This may identify triggers for allergic rhinitis in the home or the workplace. Pets and house dust mites may be factors at home, and at work there may be occupational allergens.

5.1.3. If occupational rhinitis is suspected, it may be possible to prevent progression to occupational asthma. Resolution of symptoms while the patient is on holiday may suggest an environmental cause for allergic rhinitis. Rhinitis symptoms may also be attributable to Wegener's granulomatosis and sarcoidosis, so systemic review and clinical examination is important.

## 6. CLINICAL HISTORY/SYMPTOMS

The following symptoms are suggestive of allergic rhinitis on history:

### 6.1. Sneezing



- 6.2. Itching: Nose, eyes, ears, palate
- 6.3. Rhinorrhoea
- 6.4. Postnasal drip
- 6.5. Congestion
- 6.6. Anosmia
- 6.7. Headache
- 6.8. Earache
- 6.9. Tearing
- 6.10. Red eyes
- 6.11. Eye swelling
- 6.12. Fatigue
- 6.13. Drowsiness
- 6.14. Malaise
- 6.15. Allergic conjunctivitis may also be present

## 7. RED FLAGS

- 7.1. Unilateral symptoms, +/- visual changes, lack of nasal itch and lack of sneezing may suggest nasal tumour.
- 7.2. Epistaxis, recurrent sinusitis, pulmonary involvement, haematuria and systemic symptom may suggest Wegener's Granulomatosis.

- 7.3. Nasal obstruction, fever, facial pain and worsening of symptoms without treatment (chronic) may suggest of bacterial rhinosinusitis.
- 7.4. Unilateral rhinorrhoea, which would necessitate to rule out a cerebrospinal fluid leak.
- 7.5. Bloody, purulent discharge, pain and nasal blockage which may indicate an underlying malignancy.
- 7.6. Suspected occupational rhinitis or asthma.

## 8. DIFFERENTIAL DIAGNOSIS

Although Allergic Rhinitis is usually diagnosed clinically and readily identified by symptoms, several other conditions may mimic Allergic Rhinitis.

- 8.1. Acute Nasopharyngitis
- 8.2. Acute bacterial rhinosinusitis
- 8.3. Influenza
- 8.4. Nasal tumours
- 8.5. Wegener's granulomatosis
- 8.6. Sarcoidosis
- 8.7. Viral rhinitis
- 8.8. Vasomotor rhinitis or non-allergic rhinitis
- 8.9. Rhinitis medicamentosa
- 8.10. Hormonal or Drug Induced rhinitis
- 8.11. Occupational Rhinitis when exposed to different industrial gases and chemicals

8.12. Structural or mechanical conditions causing obstruction

## 9. INVESTIGATIONS

The diagnosis may be confirmed by detecting specific IgE to airborne allergens, through skinprick testing or on serum. This is particularly relevant if allergen-specific immunotherapy is being considered. Allergic rhinitis is often related to house dust mites as well as grass and tree pollens.

## 10. MANAGEMENT

10.1. Refer to APPENDIX 1 for the Virtual Management of Allergic Rhinitis Algorithm

10.2. Non-Pharmacological

Allergen avoidance is helpful and should be recommended, although it may not be practical or achievable. Avoiding walking in grassy open spaces in the early morning and evening as well as keeping windows shut in cars and buildings can help to reduce the risk of pollen exposure. There may be nasal hyperactivity to non-specific stimuli such as changes in temperature, exposure to cigarette smoke and pollution. Patient education is important in relation to these factors as well as the risk of disease progression and available treatments.

10.3. Pharmacological

10.3.1. Intranasal corticosteroids

Intranasal corticosteroids are the mainstay of treatment. They may be used for moderate to severe allergic rhinitis and are the most effective agents

(more effective than antihistamines used with an anti-leukotriene). Intranasal corticosteroids are helpful where the predominant symptom is nasal blockage and congestion, but they may improve conjunctival symptoms as well. Commonly used preparations include fluticasone and mometasone.

The recommended dosage in adults is 2 sprays into each nostril once daily; when control is achieved, reduce to minimum effective dose, 1 spray into each nostril once daily may be sufficient.

#### 10.3.2. Intranasal antihistamines

- a. Intranasal antihistamines like azelastine may help with sneezing, itching and rhinorrhoea. There is a rapid onset of action that may last up to 4 hours.
- b. Adverse effects include epistaxis, nasal irritation and sedation.
- c. Intranasal antihistamines are less effective than intranasal corticosteroids.
- d. Dosage of Azelastine (1 mg/ml liquid for nasal spray) for adults. For children 12 years of age is 1 or 2 sprays into each nostril two times a day.

#### 10.3.3. Sodium cromoglycate

Sodium cromoglycate and nedocromil sodium may help with nasal symptoms but are considered less effective than intranasal corticosteroid. Cromolyn

sodium administered intranasally and/or by inhalation may improve cold symptoms.

Dosage of Cromonlyn sodium (intranasally and/or by inhalation) is 20 mg/ml nose spray 15 ml, 1 Spray 2-4 times a day, into each nostril.

#### 10.3.4. Anticholinergics

Anticholinergics such as ipratropium bromide may help with rhinorrhoea.

Dosage: Adult and child over 12 years, 42 micrograms (2 sprays) into each nostril 2-3 times daily.

#### 10.3.5. Decongestants

Decongestants such as ephedrine and xylometazoline may help with nasal congestion but are associated with rhinitis medicamentosa if used inappropriately.

Dosage: 1 spray into each nostril 1-2 times daily when required; maximum duration of 7 days – not recommended for children under 12 years.

#### 10.3.6. Anti-leukotriene Montelukast

The anti-leukotriene montelukast is approved by NICE for the treatment of Allergic Rhinitis with Brochial Asthma.

Dosage for adults is 10 mg OD.

#### 10.3.7. Oral Steroids

Oral steroids like prednisolone may be considered if symptoms are severe.

Example: 10-20 mg daily preferably in the morning after breakfast. In severe disease: initially up to 60 mg daily.

- 10.3.8. In selected cases, if symptomatic control is not achieved, patient should be referred to be considered for sublingual or subcutaneous immunotherapy. This can reduce symptoms of allergic rhinitis and prevent asthma. Repeated injections with allergen extract are required for subcutaneous immunotherapy. Medical management is guided by the frequency and severity of symptoms as well as the impact on quality of life.

## 11. COMPLICATIONS

Complications of allergic rhinitis include the following:

- 11.1. Acute or chronic sinusitis
- 11.2. Otitis media
- 11.3. Sleep disturbance or apnoea
- 11.4. Dental problems
- 11.5. Palatal abnormalities
- 11.6. Eustachian tube dysfunction
- 11.7. Low self-esteem and depression if symptoms are associated with sleep apnoea

## 12. REFERRAL CRITERIA

- 12.1. Refer to Family Physician/Specialist
  - 12.1.1. Structural or mechanical conditions causing obstruction

- 12.1.2. If patients are unresponsive to conventional treatment
- 12.1.3. If presenting symptoms/condition require imaging based on clinical decision
- 12.1.4. Suspected diagnosis of Wegener's granulomatosis which may present with nasal pain, nasal congestion, rhinitis, crusting and epistaxis
- 12.1.5. Patients with suspected occupational rhinitis or asthma should be referred to secondary care
- 12.1.6. Children who have asthma with possible IgE-mediated food allergy
- 12.1.7. Symptoms suggestive of
  - a. Sarcoidosis
- 12.1.8. Rhinitis medicamentosa (RM), also known as rebound rhinitis
- 12.1.9. Hormonal or Drug Induced rhinitis
- 12.2. Refer to ER
  - 12.2.1. Mechanical conditions causing obstruction
  - 12.2.2. If there is a unilateral clear rhinorrhoea, which raises a suspicion of a cerebrospinal fluid leak (unilateral rhinorrhoea may signify the presence of a malignancy, a polyp or a foreign body, or simply septal deviation).

## REFERENCES

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## APPENDIX 1 – VIRTUAL MANAGEMENT OF ALLERGIC RHINITIS ALGORITHM

