DHA TELEHEALTH CLINICAL GUIDELINES

FOR VIRTUAL MANAGEMENT

OF DYSPEPSIA – 16

Version 1

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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 Dyspepsia. 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

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.

Dyspepsia also known as Indigestion is a general term that describes a group of gastrointestinal symptoms that occur together, including pain, a burning feeling, or discomfort in the upper abdomen; feeling full too soon while eating and feeling uncomfortably full after eating. Indigestion may be:

- Occasional — happening occasionally
- Chronic — happening regularly for a few weeks or months
- Functional — Functional indigestion (previously called non-ulcer dyspepsia) is indigestion "without evidence of an organic disease that is likely to explain the symptoms".

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

DHA	:	Dubai Health Authority
EBP	:	Evidence Based Practice
ER	:	Emergency Room
GERD	:	Gastroesophageal Reflux Disease
H2RAs	:	H2 Receptor Antagonists
PPIs	:	Proton Pump Inhibitors

1. BACKGROUND

1.1. Causes

1.1.1. 25% of patients have an underlying organic cause

1.1.2. 75% of patients have functional (idiopathic or non-ulcer) dyspepsia with no underlying cause on diagnostic evaluation

1.2. Peptic ulcer disease

Upper abdominal pain or discomfort is the most prominent symptom in patients with peptic ulcers. Although discomfort from ulcers is usually centered in the epigastrium, it may occasionally localize to the right or left upper quadrants. While classic symptoms of duodenal ulcer occur when acid is secreted in the absence of a food buffer (i.e., two to five hours after meals or on an empty stomach), peptic ulcers can be associated with food-provoked symptoms. It is associated with postprandial belching, epigastric fullness, early satiation, fatty food intolerance, nausea, and occasional vomiting.

1.3. Gastroesophageal malignancy

Gastroesophageal malignancy is an uncommon cause of chronic dyspepsia in the Western hemisphere, but the incidence is higher in patients of Asian, Hispanic, or Afro-Caribbean extraction. The incidence of gastroesophageal malignancy increases with age. When present, abdominal pain tends to be epigastric, vague, and mild early in the disease but more severe and constant as the disease

progresses. In addition, other symptoms and signs typically evolve with disease progression (e.g., anemia, fatigue, weight loss).

1.4. Biliary pain

Classic biliary pain is characterized by episodic intense dull pain located in the right upper quadrant, epigastrium, or (less often) substernal area that may radiate to the back (particularly the right shoulder blade). The pain is often associated with diaphoresis, nausea, and vomiting. The pain is constant and not colicky. It is not exacerbated by movement and is not relieved by squatting, bowel movements, or passage of flatus. The pain typically lasts at least 30 minutes, plateauing within an hour. The pain then starts to subside, with an entire attack usually lasting less than six hours.

1.5. Drug-induced dyspepsia

NSAIDs can cause dyspepsia even in the absence of peptic ulcer disease. Other drugs that have been implicated in drug-induced dyspepsia include calcium channel blockers, methylxanthines, alendronate, orlistat, potassium supplements, acarbose, dabigatran, and certain antibiotics, including erythromycin.

1.6. Other causes

Celiac disease and chronic pancreatitis may rarely present with dyspepsia alone. H.Pylori has been considered as a possible cause. Other rare causes for dyspepsia include infiltrative diseases of the stomach (e.g., eosinophilic gastroenteritis, Crohn

disease, sarcoidosis, lymphoma, and amyloidosis), diabetic radiculopathy, metabolic disturbances (e.g., hypercalcemia, heavy metal toxicity), hepatoma, steatohepatitis, celiac artery compression syndrome, superior mesenteric artery syndrome, abdominal wall pain, and intestinal angina.

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 Dyspepsia 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. Clinical History

A detailed virtual history and laboratory evaluation are the first steps in the evaluation of a patient with new onset of dyspepsia History — A detailed history is necessary to determine the underlying cause and to identify patients with alarm features.

5.1.1. A dominant history of heartburn or regurgitation (suggestive of gastroesophageal reflux disease)

5.1.2. Use of Aspirin and other NSAID (raises the possibility of NSAID dyspepsia and peptic ulcer disease)

5.1.3. Weight loss, anorexia, vomiting, dysphagia, odynophagia (suggest the presence of an underlying gastroesophageal malignancy)

5.1.4. Radiation of pain to the back or personal or family history of pancreatitis (may be indicative of underlying chronic pancreatitis)

5.1.5. Family history of gastrointestinal cancers

5.1.6. The presence of severe episodic epigastric or right upper quadrant abdominal pain lasting at least 30 minutes (suggestive of symptomatic cholelithiasis)

6. RED FLAGS

6.1. Severe acute abdominal pain

6.2. Unintentional weight loss

6.3. Progressive dysphagia

6.4. Odynophagia

6.5. History of unexplained iron deficiency anemia

6.6. Persistent vomiting

6.7. If the patient has noted any palpable mass

6.8. Family history of upper gastrointestinal cancer

6.9. Symptoms suggesting heart attacks. Including

6.9.1. Shortness of breath, sweating or chest pain radiating to the jaw, neck or arm

6.9.2. Chest pain on exertion or with stress

7. DIFFERENTIAL DIAGNOSIS

7.1. Functional dyspepsia

7.2. Peptic Ulcer diseases

7.3. Gastroesophageal reflux disease (GERD)

7.4. Biliary pain

7.5. Chronic abdominal wall pain

7.6. Gastric or esophageal cancer

7.7. Gastroparesis

7.8. Pancreatitis

7.9. Medications (including potassium supplements, Digitalis, Iron, Theophylline, Oral antibiotic (especially ampicillin and erythromycin, nonsteroidal anti-inflammatory drugs (NSAID), glucocorticoids, niacin, gemfibrozil, narcotics, colchicine, quinidine, estrogens, levodopa)

7.10. Infiltrative diseases of the stomach (e.g., Crohn disease, sarcoidosis)

7.11. Metabolic disturbances (hypercalcemia, hyperkalemia)

7.12. Hepatocellular carcinoma 13. Ischemic bowel disease, celiac artery compression syndrome, superior mesenteric artery syndrome 14. Systemic disorders (diabetes mellitus, thyroid and parathyroid disorders, connective tissue disease)

7.13. Intestinal parasites (Giardia, Strongyloides)

7.14. Abdominal cancer, especially pancreatic cancer

8. INVESTIGATIONS

The approach to and extent of diagnostic evaluation of a patient with dyspepsia is based on the clinical presentation, the patient's age, and the presence of alarm features. An approach to the evaluation of a patient with dyspepsia is outlined in the algorithm.

The American Gastroenterological Association guidelines suggest that it may be reasonable in some resource-rich countries to consider the age of 60 or 65 years as the threshold age at which endoscopy should be offered to all new dyspeptic patients. These recommendations highlight the fact that diagnostic evaluation of the patient with dyspepsia need to be individualized based on symptoms, age, ethnic background, family history and regional incidence of gastric cancer.

It is recommended that patient with dyspepsia should offer the following routine lab test:

8.1. Full blood count

8.2. Urea and electrolytes

8.3. Liver function tests

8.4. Test for H.Pylori - Urea Breath Test, stool antigen test or blood antigen test

8.5. Serum lipase, and amylase

9. MANAGEMENT

9.1. Refer to APPENDIX 1 for the Virtual Management of Dyspepsia Algorithm

9.2. Non-Pharmacological Treatment

The best way to prevent indigestion is to avoid the foods and situations that seem to cause it. Keeping a food diary is helpful in identifying foods that cause indigestion. Here are some other suggestions:

9.2.1. Eat small meals so the stomach does not have to work as hard or as long

9.2.2. Eat slowly

9.2.3. Avoid foods that contain high amounts of acids, such as citrus fruits and tomatoes

9.2.4. Reduce or avoid foods and beverages that contain caffeine

9.2.5. If stress is a trigger for the indigestion, learn new methods for managing stress, such as relaxation therapy or yoga

9.2.6. If patient smokes, advise to quit. Smoking can irritate the lining of the stomach

9.2.7. Cut back on alcohol consumption, because alcohol can also irritate the stomach lining

9.2.8. Avoid wearing tight-fitting garments, because they tend to compress the stomach, which can cause its contents to enter the esophagus

9.2.9. Don't exercise with a full stomach. Rather, exercise before a meal or at least one hour after eating a meal

9.2.10. Don't lie down right after eating

9.2.11. Wait at least three hours after your last meal of the day before going to bed

9.2.12. Sleep with head elevated (at least 6 inches) above feet and use pillows to prop yourself up. This will help allow digestive juices to flow into the intestines rather than to the esophagus

9.2.13. Eating a balanced diet that excludes spicy or greasy foods is key

9.2.14. Fruits, nuts, legumes, and wholegrain foods are packed with fiber and an excellent choice for protecting against indigestion. Many yogurts and cereals have also been fortified with fiber.

9.3. Pharmacological Treatment

9.3.1. Antacids

Maalox suspension, Gaviscon suspension 5 to 10ml 20 to 60 minutes after meals and at bed time or as required, are usually the first drugs recommended to relieve symptoms of indigestion. Many brands on the market use different combinations of three basic salts—magnesium, calcium, and aluminum—with hydroxide or bicarbonate ions to neutralize the acid in the stomach.

Antacids, however, can have side effects. Magnesium salt can lead to diarrhea, and aluminum salt may cause constipation. Aluminum and magnesium salts are often combined in a single product to balance these effects.

9.3.2. H2 receptor antagonists (H2RAs)

Include ranitidine, famotidine and nizatidine which are available by prescription - 150mg once or twice to 300mg once daily for a duration based on the condition. H2RAs treat symptoms of indigestion by reducing stomach acid. They work longer than but not as quickly as antacids.

Side effects of H2RAs may include headache, nausea, vomiting, constipation, diarrhea, and unusual bleeding or bruising.

9.3.3. Proton pump inhibitors (PPIs)

Include omeprazole, lansoprazole, pantoprazole, rabeprazole and esomeprazole (Nexium) 20 to 40mg once daily for a duration based on diagnosis. PPIs, which are stronger than H2RAs, also treat indigestion symptoms by reducing stomach acid. PPIs are most effective in treating symptoms of indigestion in people who also have GERD.

Side effects of PPIs may include back pain, aching, cough, headache, dizziness, abdominal pain, gas, nausea, vomiting, constipation, and diarrhea.

9.3.4. Prokinetics

Such as metoclopramide 10 to 15 mg oral 30 minutes before each meal and at bed time, may be helpful for people who have a problem with the stomach emptying too slowly for a duration depend on the symptoms being treated and clinical response. Metoclopramide also improves muscle action in the digestive tract.

Prokinetics have frequent side effects that limit their usefulness, including fatigue, sleepiness, depression, anxiety, and involuntary muscle spasms or movements.

H. Pylori positive treatment includes triple therapy o PPI 20 to 40 mg twice daily for 14 days of Clarithromycin (500 mg) twice daily for 14 days of Amoxicillin (1 gram) twice daily or Metronidazole (500 mg) three times daily for 14 days.

10. REFERRAL CRITERIA

10.1. Referral Criteria to Family Physician/ Specialist

10.1.1. Any age with gastro-oesophageal symptoms that are non-responsive to treatment

10.1.2. With history of H. Pylori and persistent symptoms that have not responded to eradication therapy

10.1.3. Fatigue or weakness, which may indicate anemia

10.1.4. Unintentional weight loss or loss of appetite

10.1.5. If the patient has noted any palpable mass

10.1.6. Family history of upper gastrointestinal cancer

10.2. Referral to ER

10.2.1. Severe acute abdominal pain

10.2.2. Repeated vomiting or vomiting with blood

10.2.3. Black, tarry stools

10.2.4. Trouble swallowing that gets progressively worse

10.2.5. Symptoms similar to indigestion may be caused by heart attacks. If indigestion is unusual and accompanied by

a. Shortness of breath, sweating or chest pain radiating to the jaw, neck or arm

b. Chest pain on exertion or with stress

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APPENDIX 1 – VIRTUAL MANAGEMENT OF DYSPEPSIA ALGORITHM