DHA TELEHEALTH CLINICAL

GUIDELINES FOR VIRTUAL

MANAGEMENT OF HYPEREMESIS – 39

Version 2

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Health Policies and Standards Department

Health Regulation Sector (2024)

INTRODUCTION

Health Regulation Sector (HRS) forms an integral part of Dubai Health Authority (DHA) and is mandated by DHA Law No. (14) of the year (2021) amending some clauses of law No. (6) of 2018 pertaining to the Dubai Health Authority (DHA), to undertake several functions including but not limited to:

- Developing regulation, policy, standards, guidelines to improve quality and patient safety and promote the growth and development of the health sector;
- Licensure and inspection of health facilities as well as healthcare professionals and ensuring compliance to best practice;
- Managing patient complaints and assuring patient and physician rights are upheld;
- Governing the use of narcotics, controlled and semi-controlled medications;
- Strengthening health tourism and assuring ongoing growth; and
- Assuring management of health informatics, e-health and promoting innovation.

The DHA Telehealth Clinical Guidelines aim to fulfil the following overarching DHA Strategic Priorities (2026):

- Pioneering Human-centered health system to promote trust, safety, quality and care for patients and their families.
- Make Dubai a lighthouse for healthcare governance, integration and regulation.

- Leading global efforts to combat epidemics and infectious diseases and prepare for disasters.
- Pioneering prevention efforts against non-communicable diseases.
- Become a global digital health hub.
- Foster healthcare education, research and innovation.

ACKNOWLEDGMENT

The Health Policy and Standards Department (HPSD) developed this Guideline in collaboration with Subject Matter Experts and would like to acknowledge and thank these health professionals for their dedication toward improving quality and safety of healthcare services in the Emirate of Dubai.

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.

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

ABG	:	Arterial Blood Gas
DHA	:	Dubai Health Authority
EBP	:	Evidence Based Practice
ER	:	Emergency Room
HRS	:	Health Regulation Sector
LFT	:	Liver Function Test
MSU	:	Midstream Urine
TFT	:	Thyroid Function Test

1. BACKGROUND

1.1. Nausea and vomiting during pregnancy are a common symptom in early pregnancy. Onset is in the first trimester and if the initial onset is after 10+6 weeks of gestation, other causes need to be considered. It typically starts between the 4th and 7th weeks of gestation, peaks in approximately the 9th week and resolves by the 20th week in 90% of women.

1.2. Hyperemesis Gravidarum (HG) is the medical term for severe nausea and vomiting in pregnancy. HG begins between the 4th and 6th week of pregnancy. It usually improves by the 15th to 20th week, although for some women it may continue on and off throughout pregnancy.

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 Hyperemesis 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. RISK FACTORS

5.1. The following are known risk factors:

5.1.1. Hyperemesis gravidarum during a previous pregnancy

5.1.2. Having a family history of hyperemesis gravidarum

5.1.3. Being overweight

5.1.4. Being a first-time mother

5.1.5. Having a multiple pregnancy (twins, triplets etc)

5.1.6. The presence of trophoblastic disease (an extremely rare condition that involves abnormal growth of cells inside a woman's uterus)

6. SIGNS AND SYMPTOMS

6.1. Nausea

6.2. Vomiting

6.3. Excessive saliva and spitting

6.4. Fatigue

6.5. Weight loss

6.6. Symptoms of dehydration including: low blood pressure, racing heartbeat, headache and confusion

6.7. Anxiety

6.8. Mood changes

6.9. Depression

6.10. Sleep disturbance

6.11. Irritability

6.12. Loss of appetite

7. HISTORY TAKING

7.1. Other important aspects in the history taking:

7.1.1. Previous history of Nausea and Vomiting in Pregnancy/HG

7.1.2. Quantify severity using Pregnancy-Unique Quantification of Emesis (PUQE) score:

7.1.3. Refer to APPENDIX 1 for the Pregnancy Unique-Quantification of Emesis (PUQE) Score Table

7.1.4. Scores:

a. Total score 4 to 6: mild nausea and vomiting of pregnancy.

b. Total score 7 to 12: moderate nausea and vomiting of pregnancy.

c. Total score ≥13: severe nausea and vomiting of pregnancy

7.1.5. History to exclude other causes:

a. abdominal pain

b. urinary symptoms

c. infection

d. drug history

e. chronic Helicobacter pylori infection

8. DIAGNOSTIC CRITERIA

8.1. It is diagnosed when there is severe, protracted nausea and vomiting, with a triad of

8.1.1. weight loss of more than 5% of pre-pregnancy weight

8.1.2. dehydration

8.1.3. electrolyte imbalances

9. RED FLAGS

9.1. Blurred vision

9.2. Unsteadiness and confusion/memory problems/drowsiness

9.3. Haematemesis

9.4. Severe epigastric pain

9.5. Abdominal pain accompanied by fever

9.6. Reduced urine output

9.7. Irritability

10. DIFFERENTIAL DIAGNOSIS

10.1. Gastrointestinal causes:

10.1.1. Appendicitis

10.1.2. Diaphragmatic Hernia

10.1.3. Hepatic or cholecystic disorders

10.1.4. Hepatitis

10.1.5. Ileus and subileus

10.1.6. Pancreatitis

10.1.7. Stomach cancer

10.1.8. Stomach ulcer or duodenal ulcer

10.2. Metabolic causes:

10.2.1. Addison's disease

10.2.2. Diabetic ketoacidosis

10.2.3. Hyperthyroidism

10.2.4. Porphyria

10.2.5. Thyrotoxicosis

10.3. Neurological causes:

10.3.1. Korsakoff's psychosis

10.3.2. Migraine

10.3.3. Vestibular disorders

10.3.4. Wernickes's encephalopathy

11. POTENTIAL COMPLICATIONS

11.1. Electrolyte abnormalities

11.2. Metabolic alkalosis

11.3. Mallory Weiss tear

11.4. Reflux esophagitis

11.5. Psychological effects, including depression

11.6. Wernickes encephalopathy and Central pontine myelinolysis (rare but documented)

11.7. Esophageal rupture (rare)

11.8. Thrombogenesis (With continued and untreated vomiting)

12. INVESTIGATIONS

12.1. For simple and self-limiting nausea and vomiting very few investigations may be required includes:

12.1.1. Urine dipstick

12.1.2. MSU

12.1.3. Urea and electrolytes

12.1.4. Full blood count:

12.1.5. Blood glucose monitoring

12.2. A referral to a specialist will be required if Ultrasound scan is needed.

12.2.1. In refractory cases or history of previous admissions, check:

a. TFTs

b. LFTs

c. calcium and phosphate

d. amylase

e. ABG

13. MANAGEMENT

Management of condition will depend on evaluation with a detailed history via teleconsultation and possible underlying cause.

Treatment of hyperemesis gravidarum involves medications and health education, only severe cases require hospitalization.

13.1. Dietary changes

13.1.1. Meals and snacks

a. Women with nausea should eat before, or as soon as, they feel hungry to avoid an empty stomach, which can aggravate nausea

b. A snack before getting out of bed in the morning may be helpful.

c. Meals and snacks should be eaten slowly and in small amounts every one to two hours to avoid an overly full stomach, which can also aggravate nausea for some women.

d. Foods high in sugar may exacerbate symptom

e. Women should determine what foods they tolerate best and try to eat those foods.

f. Dietary manipulations that help some women include eliminating coffee and spicy, odorous, high-fat, acidic, or very sweet foods, and instead consuming snacks/meals that are protein-dominant, salty, low-fat, bland, and/or dry (eg, nuts, pretzels, crackers, cereal, toast).

g. Drinking peppermint tea or sucking peppermint candies may reduce postprandial nausea.

13.2. Fluids

13.2.1. Fluids should be consumed at least 30 minutes before or after solid food to minimize the effect of a full stomach.

13.2.2. Fluids are better tolerated if cold, clear, and carbonated or sour (eg, ginger ale, lemonade, popsicles) and taken in small amounts; using a straw or very small cup sometimes helps.

13.2.3. Some women find aromatic liquids, such as lemon or mint tea, more tolerable. Small volumes of electrolyte-replacement sports drinks can be used to replace both fluids and electrolytes, if tolerated

13.3. Avoidance of triggers

13.3.1. Along with dietary changes, avoidance of environmental triggers is a key intervention for reducing nausea and vomiting of pregnancy. Examples of some triggers include stuffy rooms, odors (eg, perfume, chemicals, food, smoke), heat, humidity, noise, and visual or physical motion (eg, flickering lights, driving).

13.3.2. Quickly changing position and not getting enough rest/sleep, may also aggravate symptoms. Lying down soon after eating and lying on the left side are additional potentially aggravating factors because these actions may delay gastric emptying.

13.3.3. Cold solid foods are tolerated better than hot solid foods because they have less odor and require less preparation time (ie, shorter exposure to the trigger if the woman is preparing her own meal).

13.3.4. Brushing teeth after a meal, spitting out saliva, and frequently washing out the mouth can also be helpful. Switching to a different toothpaste may help women for whom strong mint-flavored toothpaste is a trigger.

13.3.5. Supplements containing iron should be avoided until symptoms resolve, as iron causes gastric irritation and can provoke nausea and vomiting. Taking prenatal vitamins before bed with a snack, instead of in the morning or on an empty stomach, may also be helpful. Some women may

better tolerate chewable prenatal vitamins. If prenatal vitamins are stopped, a supplement containing folic acid (400 to 800 mcg daily) is recommended until prenatal vitamins are again tolerated.

13.4. Ginger

13.4.1. Ginger-containing foods (eg, ginger lollipops, ginger tea, foods or drinks containing ginger root or syrup) for women with nausea.

13.5. Medication

13.5.1. Antiemetic: Used to control nausea and vomiting.

13.5.2. Antihistamines: Used to control allergic reactions triggering the condition.

13.5.3. Dietary supplements: Vitamin that has natural property of controlling nausea are prescribed.

13.5.4. In severe cases anti-emetics are administered intravenously for quicker and better effects.

13.6. Refer to APPENDIX 2 for the Virtual Management of Hyperemesis Algorithm

14. REFERRAL CRITERIA

14.1. Refer to Family Physician/Specialist

14.1.1. For examination and investigations to rule out other underlying medical condition

14.1.2. Vomiting not responding to supportive measures

14.1.3. Any known comorbidities or risk factor

14.2. Refer to ER

14.2.1. Inability to retain even small amounts food or liquids

14.2.2. Severe dehydration, reduced urine output

14.2.3. Evidence of ketosis

14.2.4. Headache, confusion, instability

14.2.5. Blurred vision

14.2.6. Irritability

14.2.7. Blood or bile in the vomiting

14.2.8. Haematemesis

14.2.9. Severe epigastric pain

14.2.10. Abdominal pain accompanied by fever

14.2.11. Symptoms are severe despite 24 hours of medication

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APPENDICES

APPENDIX 1 – PREGNANCY UNIQUE-QUANTIFICATION OF EMESIS (PUQE) SCORE

	1 point	2 points	3 points	4 points	5 points
Duration of nausea in the past 12 hours	0	≤1 hour	2 to 3 hours	4 to 6 hours	>6 hours
Number of vomiting episodes in the past 12 hours	0	1 to 2 hours	3 to 4 hours	5 to 6 hours	≥7 hours
Number of episodes of dry heaves in the past 12 hours	0	1 to 2 hours	3 to 4 hours	5 to 6 hours	≥7 hours

APPENDIX 2 - VIRTUAL MANAGEMENT OF HYPEREMESIS ALGORITHM