DHA TELEHEALTH CLINICAL GUIDELINES FOR LABORATORY MONITORING OF VARIOUS CHRONIC CONDITIONS/ DISEASES – 21

Version 2

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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.

Monitoring of chronic conditions accounts for a significant proportion of blood testing in DHA primary care; not all of this is based on evidence or guidelines. This guideline attempts to set out to standardize the blood tests used for monitoring of some chronic conditions, and to reduce the harms of unwarranted testing.

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

ACE	:	Angiotensin-Converting Enzyme
ACR	:	Albumin Creatinine Ratio
AF	:	Atrial fibrillation
ARB	:	Angiotensin-II Receptor Blocker
CHD	:	Coronary Heart Disease
CKD	:	Chronic Kidney Disease
CVA	:	Cerebrovascular Accident
CVD	:	Cardiovascular Disease
DHA	:	Dubai Health Authority
DM	:	Diabetes Mellitus
EBP	:	Evidence Based Practice
ER	:	Emergency Room

FBC	:	Full Blood Count
GORD	:	Gastro-Oesophageal Reflux Disease
HbA1c	:	Haemoglobin A1c
HDL	:	High-Density Lipoprotein
HT	:	Hypertension
IBD	:	Inflammatory Bowel Disease
IHD	:	Ischaemic Heart Disease
IFG	:	Impaired Fasting Glucose
IGT	:	Impaired Glucose Tolerance
KPI	:	Key Performance Indicator
LDL	:	Low-Density Lipoprotein
LFT	:	Liver Function Test
NICE	:	National Insitiute for Health and Care Excellent
PVD	:	Peripheral Vascular Disease
TIA	:	Transient Ischemic Attack
U&Es	:	Urea and Electrolytes

1. BACKGROUND

1.1. This guideline outlines the type of laboratory tests that need to be done for some chronic conditions before doctors prescribe and/or adjust the dosages of patients' chronic medications.

1.2. It should be noted that Chronic/Repeat Medications only to be prescribed after a video-consultation with a patient. Doctors must ascertain that the precise list of patients' medications, including dosage, frequency and duration are known before issuing the prescription. Patients' medical reports and/or evidence of prescription should always be sought out by doctors.

1.3. Doctors must also consider if further blood tests or other investigations need to be done before prescribing the same medication or adjusting the dosages. If doctors have any doubt about patient's exact medication or dosage, then patient should be referred to his/her usual doctor.

2. SCOPE

2.1. Telehealth services in DHA licensed Health Facilities.

3. PURPOSE

3.1. To support the implementation of laboratory monitoring of various chronic conditions/diseases.

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. Chronic conditions that could be managed virtually

Some of the chronic diseases/ conditions that could be managed virtually include (but are not limited to) the following:

5.1.1. Hypertensions

5.1.2. Hypothyroidism

5.1.3. Hyperthyroidism

5.1.4. Type 2 Diabetes

5.1.5. IGR/IFG/Gestational DM

5.1.6. Hypercholesterolemia/hyperlipidaemia

5.1.7. Ischaemic Heart Disease

5.1.8. Heart Failure

5.1.9. AF

5.1.10. Asthma

5.1.11. COPD

5.1.12. Irritable Bowel Syndrome

5.1.13. Chronic Constipation

5.1.14. Dyspepsia (Gastritis/duodenitis)/GORD

5.1.15. IBD (Ulcerative Colitis or Chon's Disease)

5.1.16. Chronic back pain

5.1.17. Vitamin D deficiency

5.1.18. Osteoporosis

5.1.19. Peripheral Vascular Disease (PVD)

5.1.20. Chronic Kidney Disease (CKD)

5.1.21. Old Stroke

5.1.22. Other conditions to be managed and repeat medications to be prescribed on doctor's discretion on case-by-case (note: doctors to request lab tests if indicated/as deemed necessary)

5.2. Laboratory monitoring of Chronic Conditions

Chronic diseases would require regular monitoring in most cases. The monitoring decision and the type of lab tests required would depend on the following six phases:

5.2.1. Pre-treatment monitoring/lab test to determine if a disease or a stage of disease is present

5.2.2. After the initiation of treatment.

5.2.3. After the disease is treated and stable

5.2.4. After a significant change in the disease process or treatment has occurred; or

5.2.5. To determine if it is possible to stop treatment

5.2.6. Based on doctor's clinical judgment

5.3. Refer to APPENDIX 1 for Required Laboratory Tests.

5.4. Refer to APPENDIX 2 for Drugs Monitoring and Tests to be done before issuing Repeat Prescriptions.

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APPENDICES

APPENDIX 1 – REQUIRED LABORATORY TESTS: TYPES AND FREQUENCY OF BLOOD TESTS THAT NEED TO BE DONE BEFORE PRESCRIBING MEDICATION FOR CHRONIC DISEASES

Chronic Condition	Baseline Blood tests to be done (or at the time of first diagnosis)	3 Monthly Review	6 Monthly and Annually Review
Hypertension	FBS, Total Cholesterol / HDL. U/E*, urine ACR.	N/A (Provided the baseline lab results were normal)	U/E (only if on ACEi, ARB or Thiazide)
CVA, CHD, PVD	FBS, Total Cholesterol / HDL. U/E*, If urine dip pos protein then send for ACR.	N/A (Provided the baseline lab results were satisfactory/normal)	CBC, cholesterol U/E,
CKD3a (eGFR 45-59)	FBS, Total Cholesterol / HDL, ACR	U/E*, Urine ACR til stable	U/E*, ACR
CKD3b (eGFR 30-44)	FBS, Total Cholesterol / HDL, ACR	U/E, Urine ACR til stable	U/E*, ACR, CBC
CKD4 (eGFR 15-29)	FBS, Total Cholesterol / HDL, ACR, Calcium, Phosphate, PTH	U/E *, Urine ACR	U/E*, ACR, CBC
Diabetes	HbA1C, U/E*, Fasting lipids, ALT, Urine ACR.	HbA1C, Urine ACR,	HbA1C, U/E*, Cholesterol, Urine ACR
IFG, IGT, Gestational Diabetes	HbA1C, U/E*, Fasting glucose and total cholesterol. If urine dip pos protein, then send for ACR	N/A (Provided the baseline lab results were satisfactory/normal)	HbA1C, U/E, Fasting glucose and total cholesterol. Urine ACR,
Gastritis /GORD/	Consider testing for H. pylori if patient has not had this test done despite having a history of chronic gastritis. Also consider checking CBC to check		

	for Hb (to rule out anaemia) if patient had a chronic history of gastritis /GORD.

Note: If baseline results are unknown (e.g. if patient's previous lab reports are unavailable and chronic medications need to be prescribed) then new lab tests need to be ordered before prescribing chronic medications. Consider repeating U/E within 2 weeks if starting patient on or increasing dosage of ACEi/ARB/Diuretics.

APPENDIX 2 – DRUGS MONITORING AND TESTS TO BE DONE BEFORE ISSUING REPEAT PRESCRIPTIONS

Name of Drug	Type of tests to be done + Frequency
Statin (e.g. Atorvastatin,	ALT at 3 month and then 12 month and then no more monitoring is needed, and the same medication can be prescribed provided that the ALT is the same. However, ensure that the latest/last cholesterol/lipid level was normal before continuing the same dose. If cholesterol level was high, then the statin dose should be increased and lipid/cholesterol level should have repeated in 3 months' time.
Methotrexate	Refills based on established diagnosis of disease by specialist only. Mandatory tests required are: LFT, U&E, ESR, CBC EVERY 2 WEEKS FOR 6 WEEKS THEN MONTHLY FOR A YEAR AND THEN EVERY 2-3MONTHLY
Sulfasalazine	Refills based on established diagnosis of disease by specialist only. Mandatory tests required are: LFT, ESR, CBC – Monthly for 3months for first year. Then 6monthly for 2 yearly. Can stop monitoring if stable at 2 years.
Azathioprine	Refills based on established diagnosis of disease by specialist only. Mandatory tests required are: LFT, ESR, CBC – Weekly for 6 weeks then monthly. After 6month if stable to these tests 3 monthly
Lithium (only through face to face consultation)	Refills based on established diagnosis of disease by specialist only. 3 monthly lithium levels. Instruct the lab technician / nurse (who takes the blood sample) to mark the form with time of sample and time of last dose. Also do U&E and TFT 6monthly
Amiodarone	6 monthly TFT AND LFT

Antithyroid Drug Therapy (for treatment of Thyrotoxicosis). Antithyroid drugs include: Carbimazole and propylthiouracil	It is recommended that thyroid function (TSH, Free T4, T3) is tested every 1-3 months after initiation of antithyroid drug therapy until stable and annually if used as a long-term treatment option
Thyroxine Therapy (e.g. for patients who are known to have hypothyroidism and are taking levothyroxine)	Check TFTs (TSH, T4 + T3) every 4-6 weekly until levels are stable (normal) and then check TFT at least annually once stable (but test can be done sooner if patient is not compliant or has symptoms of hypothyroidism or on discretion of the prescribing doctor).