DUBAI PERIODIC HEALTH SCREENING GUIDELINE

Version: 1.0

Issue Date: 11/03/2024

Effective Date: 11/05/2024

Public Health Protection Department

Dubai Health Authority (2024)

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date:** 11/03/2029   **Page 1 of 54**

ACKNOWLEDGMENT

The Public Health Protection Department developed this guideline in collaboration with subject matter experts and would like to acknowledge and thank these health professionals for their dedication toward improving health in the Emirate of Dubai.

Public Health Protection Department

Dubai Health Authority.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 2 of 54**

TABLE OF CONTENTS

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 3 of 54**

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 4 of 54**

INTRODUCTION

Public Health Protection Department (PHPD) 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 and monitoring early screening programs for chronic disease such as diabetes, high blood pressure, cardiovascular diseases, cancer and mental health diseases.

- Develop public health policies and strategies and give them priority.

- Monitor and estimate population health, and prepare periodic reports about the health situation in the Emirate of Dubai.

- Develop surveillance systems for communicable and non-communicable diseases.

- Develop and update public health indicators with the coordination of the concerned stakeholders, taking into consideration social, economic, cultural and biological factors.

- Design and implement public health programs and activate the community role through community participation in these programs.

- Connect the population of Dubai with the necessary health promotion services through social network/media channels, prepare and implement health-promoting health campaigns, projects and initiatives aligned with the strategic vision of DHA.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date:** 11/03/2029 **Page 5 of 54**

- Participate actively in educating the community about disease prevention and empower the community to follow healthy lifestyles and control the risk factors for disease.

- Develop guidelines through publications, announcements, brochures, workshops and conferences aimed at promoting public health.

- Evaluate the results of interventions programs and monitoring the general health situation of the Emirate of Dubai.

The Dubai Periodic Health Screening Guideline aims to fulfil the following overarching Dubai Health Sector Strategy 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.

- Promote the healthiest lifestyle for the people of Dubai.

- Leading global efforts to combat epidemics and infectious diseases and prepare for disasters.

- Pioneering prevention efforts against non-communicable diseases.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 6 of 54**

EXECUTIVE SUMMARY

Noncommunicable diseases (NCD's), also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioral factors. The main types of NCD are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.

Annually, 17 million people die prematurely from an NCD before the age of 70 years. Cardiovascular diseases account for most NCD deaths, or 17.9 million people annually, followed by cancers (9.3 million), chronic respiratory diseases (4.1 million), and diabetes (2.0 million including kidney disease deaths caused by diabetes). In the UAE, NCD's account for nearly 77% of all deaths. Modifiable behavioral risk factors such as tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets all increase the risk of premature death from a NCD. Changing modifiable risk factors, early detection, screening and treatment of NCD's, are key components for prevention and control.

Dubai Periodic Health Screening Guideline is aligned with the Ministry of Health and Prevention (MOHAP), National Periodic Health Screening Manual and WHO Global Action Plan for NCD prevention. The screening guideline is part of prevention efforts to address the burden of NCD's in the community. It sets out to screen adults above 18 years at, 3-year intervals (unless otherwise indicated). The screening health checks aim to detect the early signs of cardiovascular

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 7 of 54**

disease, kidney disease, type diabetes and cancer. Individuals with pre–existing diseases are not required to undergo screening but to continue their management plan with the treating physician.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029   **Page 8 of 54**

DEFINITIONS/ABBREVIATIONS

Cholesterol: Cholesterol is a sterol, an alcohol derivative of a steroid, which is present in the blood and most cell membranes. It is a type of lipid. High cholesterol (total blood cholesterol ≥ 200 mg/dL, 5.26.2 mmol/L) contributes to a higher risk of cardiovascular diseases, such as heart disease and stroke. Two types of lipoproteins carry cholesterol throughout the body: LDL (low-density lipoprotein) cholesterol, makes up most of the body's cholesterol. High levels of LDL cholesterol raise the risk of heart disease and stroke. HDL (high-density lipoprotein) cholesterol, absorbs cholesterol in the blood and carries it back to the liver. High levels of HDL cholesterol can lower risk for heart disease and stroke.

Colonoscopy: a procedure in which a flexible fiber-optic instrument is inserted through the anus in order to examine the colon. A colonoscopy is an examination used to look for changes — such as inflammation, polyps or cancer in the colon and rectum.

Depression: Depression (major depressive disorder) is a common, but treatable serious mental illness that negatively affects the way an individual feels, the way they think and how they act. Depression causes feelings of sadness and/or a loss of interest in activities the individual once enjoyed. It can lead to a variety of emotional and physical problems and can decrease the ability to function at work and at home.

Diabetes Mellitus (Type 2 Diabetes): Diabetes is a chronic, metabolic disease characterized by elevated levels of blood glucose. Type 2 diabetes, usually occurs in adults, when the body

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 9 of 54**

becomes resistant to insulin or doesn't make enough insulin. A HbA1c level of ≥6.5% or fasting blood sugar ≥126mg/dl (≥48 mmol/mol) or more indicates diabetes. High blood sugar levels can eventually lead to disorders of the circulatory, nervous and immune systems.

Eating Disorders: are behavioural conditions characterized by severe and persistent disturbance in eating behaviours and associated distressing thoughts and emotions. They can be very serious conditions affecting physical, psychological and social function. Types of eating disorders include anorexia nervosa, bulimia nervosa, binge eating disorder, avoidant restrictive food intake disorder, other specified feeding and eating disorder, pica and rumination disorder.

Familial hypercholesterolemia: Familial hypercholesterolemia (FH) is a common genetic disease caused by mutation of one or more of the genes critical for low-density lipoprotein cholesterol (LDL-C) catabolism. The clinical syndrome is characterized by extremely elevated levels of LDL-C and a propensity to early onset atherosclerotic cardiovascular disease.

Fecal Immunochemical Test (FIT): The FIT is a screening test for colon cancer. It tests for blood in the stool, which can be an early sign of colon cancer. FIT only detects human blood from the lower intestines.

General Anxiety Disorder (GAD): is one of a range of anxiety disorders that includes panic disorder (with and without agoraphobia), post-traumatic stress disorder, obsessive-compulsive disorder, social phobia, specific phobias (for example, of spiders) and acute stress disorder.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 10 of 54**

Anxiety disorders can exist in isolation but more commonly occur with other anxiety and depressive disorders.

GAD is a common disorder, of which the central feature is excessive worry about a number of different events associated with heightened tension.

HbA1c test: Haemoglobin A1c, also known as glycated haemoglobin test measures the amount of plasma glucose concentration that is being carried by the red blood cells in the body, over a prolonged period of time. A HbA1c test is a simple blood test that measures average blood sugar levels over the past 3 months and is one of the most commonly used tests to diagnose prediabetes and diabetes. Higher A1c levels are linked to diabetic complications.

Healthcare Professional: DHA licensed healthcare professionals working in a DHA licensed health facility and required to be licensed as per the applicable laws in the United Arab Emirates.

Hypertension: Hypertension/High blood pressure is a common condition that affects the body's arteries. High blood pressure results in the force of the blood pushing against the artery walls being consistently too high and the heart working harder to pump blood. Hypertension is a blood pressure reading of 140/90mmHg or higher.

Mammogram: Specialized X-rays of the breast to aid in the screening and early detection of breast cancer.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 11 of 54**

Non-Communicable Disease (NCD's): also known as chronic diseases, these tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioral factors. The main types of NCD are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.

PAP smear: A procedure to test for cervical cancer in women. It involves collecting cells from the cervix to detect early signs of cervical cancer. A Pap smear can also detect changes in cervical cells that suggest cancer may develop in the future.

PHQ-9: The Patient Health Questionnaire (PHQ-9) is a self-administered tool for screening, diagnosing, monitoring and measuring the severity of depression in primary care patients.

Pre-diabetes: is a condition where blood sugar levels are higher than normal, but not yet high enough to be diagnosed as diabetes. People with prediabetes are at greater risk of developing diabetes and other serious health problems and requires lifestyle changes to avoid developing diabetes. An HbA1c level of 5.7- 6.4% indicates prediabetes.

SCOFF: The SCOFF Questionnaire is a five-question screening tool designed to clarify suspicion that an eating disorder might exist rather than to make a diagnosis.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 12 of 54**

ABBREVIATIONS:

DEXA: Dual Energy x-ray Absorptiometry

DHA: Dubai Health Authority

FIT: Fecal Immunochemical Test

GAD: General Anxiety Disorder

HDL: High Density lipoprotein

HIS: Health Insurance Sector

HRS: Health Regulation Sector

LDL: Low Density lipoprotein

MOHAP: Ministry of Health & Prevention

NCD's: Non-communicable Diseases

PHPD: Public Health and Protection Department

PHQ-9: Patient Health Questionnaire-9

SCOFF: Sick, Control, One, Fat, Food

TG: Triglyceride

UAE: United Arab Emirates.

WHO: World Health Organization

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 13 of 54**

1. BACKGROUND

Noncommunicable diseases (NCD's), also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioral factors. The main types of NCD are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes. NCD's kill 41 million people each year, equivalent to 74% of all deaths globally, in the UAE, NCD's account for nearly 77% of all deaths. Further, NCD's result in long-term health consequences and often create a need for long-term treatment and care. Annually, 17 million people die prematurely from an NCD before 70 years of age. Cardiovascular diseases account for most NCD deaths, or 17.9 million people annually, followed by cancers (9.3 million), chronic respiratory diseases (4.1 million), and diabetes (2.0 million including kidney disease deaths caused by diabetes).

In Dubai data from the Dubai Household Survey 2019 reported the prevalence of at least one NCD to be 15.0%. The prevalence of diabetes was 13.7% and 16.2% of respondents were pre-diabetics.

Adult weight disorders, including obesity (BMI of 25 kg/m² or greater) prevalence reached 62.1% with 32.5% of the adult individuals surveyed in Dubai reported having hypertension.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 14 of 54**

NCD's can affect all age groups, but the risk of developing a NCD increases with age. Modifiable behavioral risk factors such as tobacco use, physical inactivity, harmful use of alcohol and unhealthy diets all increase the risk of dying from an NCD. Changing modifiable risk factors, early detection, screening and treatment of NCD's, are key components for prevention and control of NCD's.

Simple Public Health interventions such as promoting healthy diet, physical activity, reduced alcohol use and tobacco smoking cessation are simple and cost-effective measures to reduce premature death and disability from NCD's. Prevention strategies are not only effective for those who don't have NCD's, but also for mitigating and reducing the burden of various NCD's and the risk of developing co-morbidities alongside existing chronic illness.

Healthcare professionals play an important role in supporting the community with evidence-based risk reduction interventions such as accessing behavioural programs and pharmacological treatments, which will support them to lower or manage their risk of premature death and ill health. An individually oriented strategy relies on healthcare professionals intervening to promote healthy lifestyles such as, dietary advice for people with obesity, counselling for tobacco cessation or motivational interviewing to promote physical activity.

Internationally, many countries offer preventive early screening health checks for early detection of diseases and management of risk factors. These screening tests are available

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029   **Page 15 of 54**

to the healthy adult population, with type and frequency of testing depending on age and personal risk factors.

In the UAE, The Ministry of health and Prevention (MOHAP) has developed a preventative program, called "Periodic Health Screening" initiative, which aims to support the overall efforts in combating the high burden of NCD's and lessen the impacts on community health by improving preventative services. The Dubai Periodic Health Screening Guideline is aligned with MOHAP Periodic health screening initiative and the WHO Global Action Plan for NCD prevention.

The screening guideline includes risk assessment, early detection, awareness and management for adults aged 18 years and above and aims to detect the early signs of cardiovascular diseases, kidney disease, type 2 diabetes, and cancer. DHA advises residents of Dubai aged 18 years and above, without preexisting morbidities to perform regular screening checks (at 3-year intervals unless otherwise indicated). Individuals with pre–existing disease are not required to conduct screening but to continue with their treating physicians.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 16 of 54**

2. SCOPE

2.1. Periodic Health Screening tests for the healthy population of Dubai who are aged 18 years & above.

2.2. This guideline does not apply to the following:

2.2.1. People with existing chronic conditions currently undergoing medical treatment including heart diseases, chronic kidney diseases, diabetes, high blood pressure (hypertension), atrial fibrillation, transient ischemic attack, inherited high cholesterol (familial hypercholesterolemia), heart failure, peripheral arterial disease, stroke, known cancer patients, those, currently being prescribed statins to lower cholesterol.

2.2.2. Pregnant women.

3. PURPOSE

3.1. The Dubai Periodic Health Screening Guideline aims to fulfil the following overarching Dubai Health Sector Strategy 2026:

3.1.1. Promote the healthiest lifestyle for the people of Dubai.

3.1.2. Pioneering prevention efforts against NCD's.

3.1.3. Promote and enhance the expansion of early detection services for NCD's.

3.1.4. Pioneering Human-centered health system to promote trust, safety, quality and care for patients and their families.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 17 of 54**

3.1.5. Make Dubai a model for accessible value-based health care.

4. APPLICABILITY

4.1. This guideline is intended to be used by all healthcare providers, with relevant specialty, training

and privileges as per DHA Clinical Privileging Policy.

5. RECOMMENDATION ONE: PERIODIC HEALTH SCREENING

5.1. Periodic health screening is advised for all adults aged 18+ years without any existing chronic disease in the Emirate of Dubai. It is recommended once every 3 years for individuals if they remain eligible OR unless one or more of the risk factors necessitate earlier or later screening according to the timeline outlined in (Appendix 1) (as per DHA & MOHAP guidelines).

5.2. Periodic health screening checks may be offered at outpatient healthcare facilities which provide general/primary health care services, or with any treating physician with the relevant specialty training in the Emirate of Dubai.

5.3. It is recommended Periodic Health Screening checks involve a risk assessment, examination and investigations to identify early signs of hypertension, cardiovascular disease, type 2 diabetes, osteoporosis and depression amongst others. Guidance on

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 18 of 54**

cancer screening for breast, cervix and colon depending on age and risk is also recommended. The patient journey is outlined in **(Appendix 2).**

5.4. This extent of insurance coverage will depend on the respective insurance policies. It is recommended individuals check eligibility of the coverage for Periodic Health screening in their insurance policies.

6. RECOMMENDATION TWO: INITIAL CONSULTATION.

6.1. Individuals undergoing the Periodic Health Screening check may be evaluated by the nurse using a standard risk assessment tool **(Appendix 3).** It is recommended that the facility integrate the risk assessment tool within their electronic medical records system. The tool will cover a comprehensive collection of data and medical history **(Appendix 4)** from individuals to help in assessing their risk. The risk assessment tool includes, but is not limited to, evaluation of the following:

6.1.1. Personal data – medical & family history of NCD's. (Biopsychosocial history)

6.1.2. Lifestyle Information: For example, tobacco use, physical activity and diet.

6.1.3. Cardiovascular risk factors and disease assessment:

a. Overweight and obesity (Biometrics: height, weight, BMI, waist circumference / waist hip ratio).

b. High cholesterol - lipid profile (total cholesterol, LDL, HDL and TG).

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 19 of 54**

  c. Hypertension.

  d. Diabetes. (Blood tests: fasting/non-fasting blood sugar, HbA1c level, s. creatinine)

6.1.4. Common cancers – history of screening and family history

  a. Breast cancer.

  b. Cervical cancer.

  c. Colorectal cancer.

6.1.5. Osteoporosis Risk Assessment.

6.1.6. Vitamin D deficiency.

6.1.7. Depression Assessment

6.1.8. Adult Vaccinations.

7. RECOMMENDATION THREE: CARDIOVASCULAR RISK ASSESSMENT.

7.1. <u>Initial visit:</u> It is advised that individuals (aged 18 years and above) attending the Periodic Health Screening be screened for cardiovascular risks using the measurements in **(Appendix 5)** at 3year intervals OR annually if one or more of the risk factors necessitate earlier screening.

7.2. <u>Follow up visit:</u> A risk assessment for cardiovascular risk score is recommended to be calculated for individuals and shared. Depending on score results, the person may be given advice about how to lower the risk with lifestyle changes. It is recommended the

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 20 of 54**

10-years cardiovascular risk be calculated using the modified Framingham Risk Score \ WHO\ISH Risk Score **(Appendix 6).**

7.3. It is advised individuals receive the appropriate intervention, in accordance with their risk (CVD risk assessment – **(Appendix 7).**

7.4. High and medium risk individuals have the appropriate intervention. Individuals with overweight /obesity may be referred to a dietitian clinic or a related healthcare provider (e.g. nutritionist, health educator) to receive comprehensive counselling regarding weight management.

8. **RECOMMENDATION FOUR:** TYPE 2 DIABETES.

8.1. Periodic screening tests for Type 2 Diabetic are an essential way of identifying those individuals who have undiagnosed Diabetes or are at high risk of developing the condition.

8.2. It is recommended individuals aged 18 years and above attending the Periodic Health Screening clinic be screened for Diabetes (a fasting blood sugar or HbA1c) at 3-year intervals OR annually if one or more of the risk factors necessitate earlier screening. Diabetic screening may be annual from 30 years and above.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 21 of 54**

9. RECOMMENDATION FIVE: CANCER SCREENING.

9.1. During the screening health check, it is recommended to ask, advise and direct individuals towards breast, cervical and colorectal cancer according to The National Cancer Screening guidelines summarised in **(Appendix 8)**.

9.2. Cervical cancer screening – for females with average risk: pap test done at a 3 years interval for females aged 25−49 years old and at 5 year intervals for females aged 50 −65years.

9.3. Breast cancer Screening – for females with average risk of breast cancer a mammography is advised every 2 years for those ≥40 years.

9.4. Colorectal cancer screening – for individuals at average risk faecal immunochemical test (FIT) is recommended every 2 years (≥40 years) or colonoscopy every 10 years.

10. RECOMMENDATION SIX: OSTEOPOROSIS.

10.1. All individuals aged 65 years and above attending the Periodic Health Screening are advised to be screened for osteoporosis every 3 years (unless one or more of the risk factors necessitate earlier screening) by using the central Dual Energy x-ray Absorptiometry (DEXA Scan). For those who are below 65 years, risk factors evaluation is recommended to be conducted before any DEXA scan **(Appendix 9)**.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 22 of 54**

10.2. At the follow up visit for individuals undergoing bone mass density testing it is suggested persons be informed about their results, and offered a follow-up appointment in primary or secondary care, depending on the results and risk factors.

11. RECOMMENDATION SEVEN: VITAMIN D.

11.1. Identification and treatment of vitamin D deficiency is important for musculoskeletal health and possibly even extra-skeletal health, including the immune and cardiovascular systems.

11.2. Individuals attending the initial visit of the Periodic Health Screening are advised to be screened for vitamin D deficiency to establish a baseline and subsequently if indicated. A management plan will be dependent on the results.

12. RECOMMENDATION EIGHT: DEPRESSION & MENTAL HEALTH

12.1. It is recommended all individuals aged 18 years and above attending the Periodic Health Screening service be screened for depression (where necessary) using Patient Health Questionnaire (PHQ-9), a treatment action may be initiated as stated in **(Appendix 10)**.

12.2. Any additional mental health screenings for Anxiety Disorders GAD-7 screening tool **– (Appendix 11)** and Eating Disorders SCOFF screening tool – **(Appendix 12)** may be performed if clinically indicated.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029   **Page 23 of 54**

13. RECOMMENDATION NINE: ADULT VACCINATION

13.1. All adults need immunizations to help prevent them from acquiring and spreading serious diseases. For vaccines in the adult immunization schedule refer to the DHA Clinical Guidelines for best Practice in Immunization **(Appendix 13)**.

13.2. Influenza (flu) vaccine is required annually. All adults need a seasonal flu vaccine every year. Flu vaccine is particularly important for people with chronic health conditions, pregnant women, and older adults.

13.3. Td or Tdap vaccine: Every adult should get a Tdap vaccine once if they did not receive it as an adolescent to protect against pertussis (whooping cough).

13.4. For adults aged 19-26 years:

13.4.1. They may need other vaccines based on their age, health conditions, job, lifestyle, or travel habits (Refer to DHA Clinical Guidelines for best Practice in Immunization)

13.4.2. In addition to seasonal flu vaccine and Td or Tdap vaccine (Tetanus, diphtheria, and pertussis), it's recommended also to get HPV vaccine, which protects against the types of human papillomaviruses (HPV) that cause most cervical, anal, and other cancers, as well as genital warts. CDC recommends:

a. HPV vaccination for all preteens at age 11 or 12 years.

b. HPV vaccination for everyone through age 26 years, if not vaccinated already.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 24 of 54**

c. However, its recommended to use the HPV vaccine for males and females, from age 9 up to age 45.

d. For adults ages 27 through 45 years, clinicians can consider discussing HPV vaccination with people who are most likely to benefit.

13.5. Adults 65 years and older:

13.5.1. Shingles vaccine, which protects against shingles and the complications from the disease (recommended for healthy adults 65 years and older).

13.5.2. Pneumococcal polysaccharide vaccine (PPSV23), which protects against serious pneumococcal disease, including meningitis and bloodstream infections (recommended for all adults 65 years or older, and for adults younger than 65 years who have certain health conditions).

13.5.3. Pneumococcal conjugate vaccine (PCV13/PCV15/PCV20), which protects against serious pneumococcal disease and pneumonia (recommended for all adults 65 years or older, and for adults younger than 65 years who have certain health conditions).

13.6. Additional vaccines recommended:

13.6.1. Additional vaccines may be needed if adults have any of these conditions: a. Asplenia

b. Diabetes Type 1 and Type 2

c. Heart disease, Stroke, or other Cardiovascular diseases

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 25 of 54**

d. HIV infection

e. Liver disease

f. Lung disease including Asthma

g. Renal disease

h. Weakened immune system

14. RECOMMENDATION TEN: FOLLOW - UP APPOINTMENTS.

14.1. Follow up appointments - individuals may be recalled for a follow up appointment to confirm diagnosis if any of the following but not limited to is detected at the first visit: raised blood pressure, blood sugar or cholesterol levels.

14.2. It is recommended the follow up appointment be an informative educational discussion between the physician and the patient to explain the results, with referral to a multidisciplinary healthcare team whenever required. (e.g.: dietitian, nutritionist, endocrinologist).

14.3. Documentation – It is advised that all results and recommendations be documented with proper coding and documentation in the EMR or patient file and shared with the patient.

14.4. A follow up plan with primary or secondary services may be arranged according to the patients' risk assessment and positive screening results (Appendix 14). Further advice,

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 26 of 54**

management or referral accordingly to individual risk. Personalised lifestyle advice to reduce risk of NCD's including information on tobacco cessation services, diet and physical activity is recommended during the consultation. Advise on the importance of continuing periodic screening at the recommended intervals.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 27 of 54**

15. SUMMARY:

The Dubai Periodic Screening Guideline is an evidence-based screening program of overall health. It can inform people aged 18 years of age and above whether they have or are at higher risk of NCD's, such as:

1. Cardiovascular disease CVD i.e. heart disease, stroke

2. Hypertension

3. Diabetes

4. Cancers

5. Osteoporosis

6. Mental Health Disorders E.g. Depression

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029   **Page 28 of 54**

16. REFERENCES:

1. AgostinoSr, R.B., Vasan R.S., Pencina, M.J., Wolf, P.A., Cobain, M., Massaro, J.M., Kannel, W.B.
   (2008). General cardiovascular risk profile for use in primary care: the Framingham Heart
   Study. Circulation. 117:743–753

2. Dubai Health Authority. (2019). Dubai Household Health Survey Full Report.
   https://www.dha.gov.ae/Documents/opendata/English_DDHS.pdf

3. Dubai Health Authority. (2019). Clinical Privileging Policy.
   https://www.dha.gov.ae/uploads/112021/eef2ba77-53a7-42d1-b64b-74b73729a80d.pdf

4. Clinical Guidelines for Best Practice in Immunization. Version 2.0. (2023).
   https://www.dha.gov.ae/07cf25f6-fdda-4ae0-90b3-bc3388179b64

5. National Health Service. NHS Health Check. (2023).
   https://www.nhs.uk/conditions/nhshealth-check/

6. NICE. (2008). Lipid modification: Cardiovascular risk assessment and the modification of blood
   lipids for the primary and secondary prevention of cardiovascular disease | Guidance | NICE.
   https://www.nice.org.uk/guidance/cg67

7. NICE: NHS Health Check Programme.
   https://www.nice.org.uk/guidance/ph38/evidence/ep1nhs-health-check-programme-
   heather-white-pdf-435076237

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 29 of 54**

8. Public Health England. (2019). NHS Health Check Best practice guidance for commissioners and providers https://www.healthcheck.nhs.uk/commissioners-and-providers/nationalguidance/

9. United Arab Emirates, Ministry of Health & Prevention (MOHAP). National Periodic Health Screening Manual. https://www.dha.gov.ae/uploads/112022/National%20Periodic%20Health%20Screening%20Manual%20final20221111119.pdf

10. UAE Ministry of Health & Prevention. (2014). The National Guidelines for Breast Cancer Screening and Diagnosis.

    https://www.isahd.ae/content/docs/Guidelines%20For%20Breast%20Cancer%20Screening_Booklet.pdf

11. UAE Ministry of Health & Prevention. (2014). The National Guidelines for Cervical Cancer Screening. https://www.isahd.ae/content/docs/MOHAP%20Guidelines%20For%20Cervical%20Cancer%20Screening.pdf

12. UAE Ministry of Health & Prevention. (2014). The National Guidelines for Colorectal Cancer Screening and Diagnosis.

    https://www.isahd.ae/content/docs/MOHAP%20Guidelines%20For%20Colorectal%20Canc er%20Screening.pdf

13. World Health Organization. (2023) Non-Communicable Diseases.

    https://www.who.int/health-topics/noncommunicable-diseases#tab=tab_1

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 30 of 54**

17. APPENDICES

APPENDIX 1: SCHEDULE OF HEALTH SCREENING TESTS.

DHA Screening Recommendations	Age (years)																					
	18	21	24	27	30	33	36	39	40	42	45	48	51	54	57	60	63	65	66	69	72	75
Breast cancer (mammogram)									Every 2 years from ≥ 40 years													
Cervical Cancer (pap smear)		3 years interval for women aged 25–49 & 5 years interval ages 50 –69 years.																				
Colorectal cancer (colonoscopy)									Every 10 years between 40-75 years or FIT test.													
Mental Health																						
FIT test*									Every 2 years from ≥ 40 years													
Hypertension																						
Lipid profile	Every 3 years & Annually if with risk factors																					
Obesity																						
Osteoporosis																		Every 3 years.				
Tobacco use & cessation																						
Type 2 Diabetes	Every 3 years OR annually if with risk factors																					
Vitamin D																						

Recommendation for men and women (every 3 years unless otherwise indicated)

Recommendation for women only

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date**: 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 31 of 54**

APPENDIX 2: PERIODIC HEALTH SCREENING GUIDELINE: PATIENT JOURNEY.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 32 of 54**
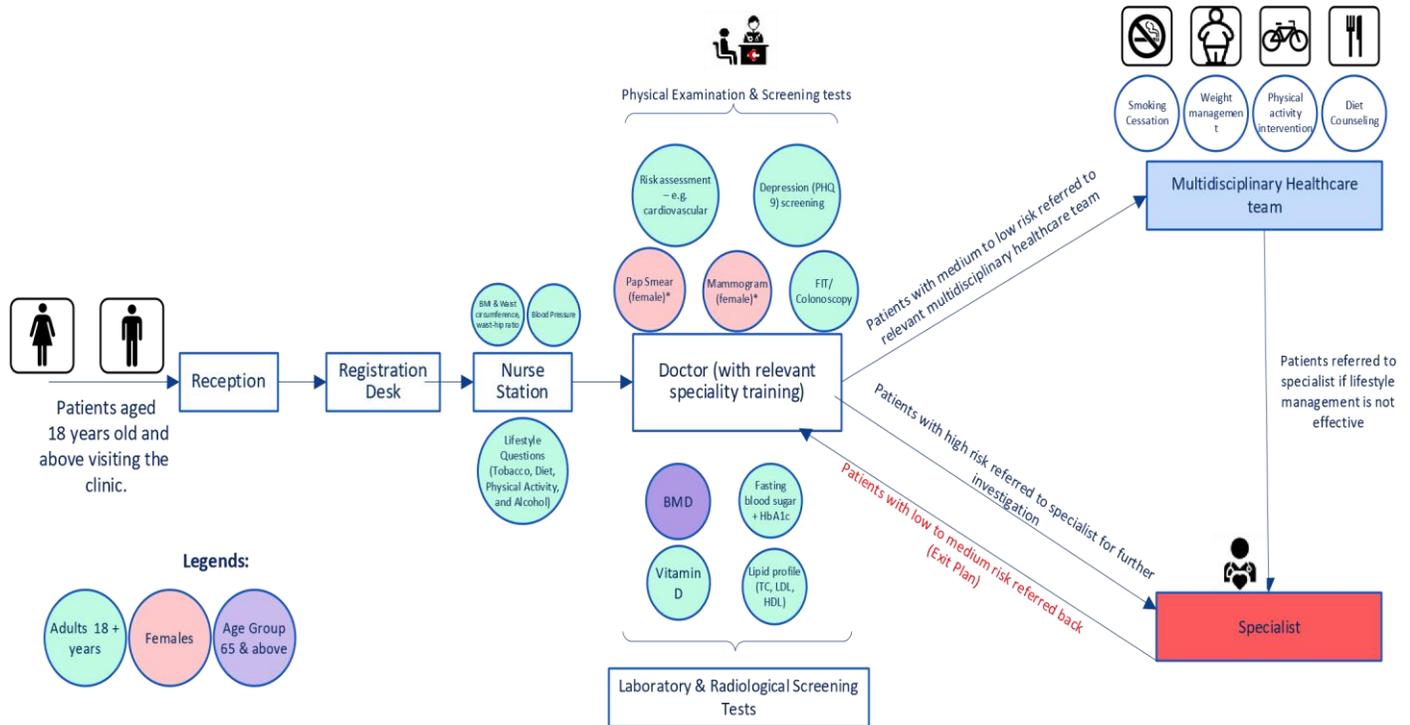
APPENDIX 3: RISK ASSESSMENT TOOL.

Section (A): ' To be filled by the Nurse '

Lifestyle status:

☑ **Physical activity:**

1. Do you do any kind of physical activity which increased your heart rate or lead to sweating like: swimming or brisk walking?

   ☐ Yes   ☐ No

   If yes, how often?

   ☐ Daily   ☐ 2-3 / week   ☐ 4-5 / week

2. If yes, How long do you exercise per day?

   ☐ Less than 30 minutes   ☐ More than 30 minutes

☑ **Dietary Habit**

1. Do you have your regular main meals per day:

   - Breakfast meal:

   ☐ Yes   ☐ No   ☐ Sometimes

   - Lunch meal:

   ☐ Yes   ☐ No   ☐ Sometimes

   - Dinner meal:

   ☐ Yes   ☐ No   ☐ Sometimes

2. Do you have snacks between meals?

   ☐ Yes   ☐ No

3. How many times per week do you have fast food or home delivery?

   ☐ Daily   ☐ 1-3 / week   ☐ 4-6 /week   ☐ Never

4. How many cups of water do you drink daily?

   ☐ 1-2 cups/day   ☐ 3 – 5 cups/day   ☐ 6 or more/day   ☐ I don't drink

5. How many times do you eat each of the following daily?

- Starch (bread, pasta, cereals, potato, rice, noodles): ....

- Fruit: ....

- Vegetables: ....

- Dairy products (milk, yogurt): ....

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 33 of 54**

- Meat, fish, poultry, egg, cheese: ....

- Fat (margarine, butter, oil, mayonnaise, etc.): ....

- Sugar, sweet and soft drinks: ....

☑ **Smoking**

1. Are you smoker?

   ☐ Yes   ☐ No   ☐ Only previously

   If yes to Q 1, please go to Q (2, 3, and 4)

2. Since when? ....

3. Which type are you using?

   ☐ Cigarettes   ☐ Medwakh   ☐ Shisha   ☐ Other Tobacco

4. Specify the quantity and frequency of using? ....

Immunization Status:-
Did you receive any one of the following vaccines?

Vaccine	Yes	No	I don't know	If yes, Date of last dose	Remarks
Influenza					
Pneumococcal 13					
Pneumococcal 23					
Td					
HPV					

Hearing Screening (Those who are 60 years old and above):

*   (If client is using a hearing aid, answers on the ways he / she hears without the aid).

**   Please refer to (Appendix No. 6)

Total score = ☐

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029   **Page 34 of 54**

Depression Screening:

1. 'During the last month, have you often been bothered by feeling down, depressed or hopeless?'

   ☐ Yes   ☐ No

2. 'During the last month, have you often been bothered by having little interest or pleasure in doing things?'

   ☐ Yes   ☐ No

** If the answer is (Yes) to one of the above questions, proceed to PHQ-9 assessment and calculate the final scoring.

Total score = [   ]

Section (B): ' To be filled by Physician '

Health status:-

☑ **Cardiovascular diseases :-**

1- Did you develop any of the following CVD (coronary artery diseases, aortic aneurysm, TIA or stroke, intermittent claudication)?

   ☐ Yes   ☐ No   ☐ I don't know   if yes specify? [   ]

2- Do you have hypertension?

   ☐ Yes   ☐ No   ☐ I don't know

   If yes, specify the treatment type?

   ☐ Nil   ☐ Lifestyle ☐ Tablets   ☐ Others

3- Do you have diabetes?

   ☐ Yes   ☐ No   ☐ I don't know

   If yes, specify the treatment type?

   ☐ Nil   ☐ Lifestyle ☐ Tablets   ☐ Insulin   ☐ Others

4- Did one of your first degree relative (sisters,brothers or parents) suffer from any of the following:

   I.   Die from cardiovascular diseases (CAD, Aortic aneurysm,TIA or stroke) before the age of (55 male,65 female)?

   ☐ Yes   ☐ No   ☐ I don't know

   II. Diabetes type II?

   ☐ Yes   ☐ No   ☐ I don't know

   III. High Cholesterol?

   ☐ Yes   ☐ No   ☐ I don't know

   IV. Sudden Death of Unknown Causes?

   ☐ Yes   ☐ No   ☐ I don't know

19

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date:** 11/03/2029   **Page 35 of 54**

☑ **Common Cancers:-**

1- Have you ever been told by a health care professional that you have one of the benign tumors or cancer of breast?

☐ Yes ☐ No ☐ I don't know if yes specify? [_____]

2- Have you developed cancer of cervix?

☐ Yes ☐ No ☐ I don't know if yes specify? [_____]

3- Have you developed cancer of Ovaries?

☐ Yes ☐ No ☐ I don't know if yes specify? [_____]

4- Have you been exposed to radiation in general or certainly the chest?

☐ Yes ☐ No ☐ I don't know if yes specify? [_____]

5- Have you suffer from HPV?

☐ Yes ☐ No ☐ I don't know [_____]

6- Have you suffered from STD (AIDS, HERPES)?

☐ Yes ☐ No ☐ I don't know if yes specify? [_____]

7- Have you developed cancer of colon or colon Polyposis?

☐ Yes ☐ No ☐ I don't know if yes specify? [_____]

8- Have you suffer from Ulcerative Colitis?

☐ Yes ☐ No ☐ I don't know if yes specify? [_____]

9- Have you developed any other type of cancers?

☐ Yes ☐ No ☐ I don't know if yes specify? [_____]

10- Are one of your first degree relative have suffered from one of the above mentioned cancers (brothers, sisters, parents)?

☐ Yes ☐ No ☐ I don't know if yes specify? [_____]

☑ **Osteoporosis & Vitamin D Deficiency:-**

1- Do you have osteoporosis?

☐ Yes ☐ No ☐ I don't know

If yes, go to Q 2 and 3

2- When it was diagnosed? (Mention year of Diagnosis) ....

3- Are you on osteoporosis treatment?

☐ Yes ☐ No

4- Do you have vitamin D deficiency?

☐ Yes ☐ No ☐ I don't know

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 36 of 54**

5- Are you on vitamin D supplements?

☐ Yes   ☐ No

6- Do you have anyone of the followings?

☐ Age more than 65   ☐ Vertebral compression fracture   ☐ Fragility fracture after age 40

☐ Parental hip fracture   ☐ Osteopenia on X-ray film

☐ Low Body weight (less than 60 Kg) or major weight loss (> 10 % of weight at age 25 years)

☐ Prolonged glucocorticoids use for more than 3 month in the prior year at a prednisolone equivalent dose of ≥ 7.5 mg daily.

☐ Current Smoking   ☐ Rheumatoid arthritis   ☐ Alcoholism

Use of high risk medications like: aromatase inhibitors, androgen deprivation therapy.

7- Have been diagnosed with any of the health conditions which could lead to osteoporosis as shown in Tables (1 & 2)?

Please Mention: ....

....

☑ **Gynaecological Status : (For Females only)**

A. Age of Menarche? ....

B. Date of last Menstrual Period? ....

C. If Menopausal: History of Hormonal replacement therapy? ....

E. History of contraception use? ....

....

F. Age at first pregnancy? ....

G. Parity? ....

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 37 of 54**

Previous Screening Tests:

Name of Test	Done (Yes/No)	How many times (Numbers)	Date of last test	Last Test results (Normal/ Abnormal)	Action Done
CBE (Clinical Breast Examination)					
Mammogram					
Pap Smear					
Stool Occult Blood					
Colonoscopy / Sigmoidoscopy					
DEXA Scan					
Others (specify)					

Docter Name: ....

Signature: ....

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 38 of 54**

APPENDIX 4: MEDICAL HISTORY: BIOPSYCHOSOCIAL INFORMATION TO BE COLLECTED.

- Personal data: demography, medical & family history, physical activity, diet, tobacco use (Biopsychosocial).

- Cardiovascular risk factors and diseases, including: overweight and obesity, hypertension, high cholesterol.

- Diabetes – family history and risk factors

- Cancers eligible for screening: Breast, Cervical and Colorectal.

Physical Measurements	Biochemical Measurements	Others
- Blood Pressure - Height - Weight - Body mass index (BMI) - Waist circumference / waist hip ratio	- Fasting blood glucose - HbA1c - Lipids (Total cholesterol, HDL, LDL, TG) S. creatinine - Vitamin D3 Hydroxy Level	- Depression score (PHQ-9 score, if required) - FIT - Cervical Pap smear - Breast mammogram - Bone mass density

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 39 of 54**

APPENDIX 5: CVD RISK MEASUREMENT PARAMETERS.

• Risk assessment through risk assessment tool.
• Physical measurements: blood pressure, weight, height, body mass index and waist circumference / waist hip ratio.
• Biological measurements: fasting/non-fasting blood sugar, HbA1c level, s. creatinine, lipid profile (total cholesterol, LDL, HDL and TG).

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029   **Page 40 of 54**

APPENDIX 6 – FRAMINGHAM RISK ASSESSMENT.

Current Lipid Values: LDL-C: _____ TC: _____ HDL-C: _____ Apo B: _____

Risk Factor	Risk Points (Men)		Risk Points (Women)		Points
Age 30 - 34 years	0		0		
35-39	2		2		
40-44	5		4		
45-49	7		5		
50-54	8		7		
55-59	10		8		
60-64	11		9		
65-69	13		10		
70-74	14		11		
75+	15		12		
HDL-C Level (mmol/L)	Risk Points (Men)		Risk Points (Women)		Points
>1.6	-2		-2		
1.3-1.6	-1		-1		
1.2-1.3	0		0		
0.9-1.2	1		1		
<0.9	2		2		
Total Cholesterol Level	Risk Points (Men)		Risk Points (Women)		Points
<4.1	0		0		
4.1-5.2	1		1		
5.2-6.2	2		3		
6.2-7.2	3		4		
>7.2	4		5		
Systolic BP (mmHG)	Untreated	Treated	Untreated	Treated	Points
<120	-2	0	-3	-1	
120-129	0	2	0	2	
130-139	1	3	1	3	
140-149	2	4	2	5	
150-159	2	4	4	6	
>160	3	5	5	7	
Smoker	Risk Points (Men)		Risk Points (Women)		Points
No	0		0		
Yes	4		3		
Diabetes	Risk Points (Men)		Risk Points (Women)		Points
No	0		0		
Yes	3		4		
			Total Points		

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 41 of 54**

Total Risk Points	Risk Points (Men)	Risk Points (Women)
-3 or less	<1	<1
-2	1.1	<1
-1	1.4	1.0
0	1.6	1.2
1	1.9	1.5
2	2.3	1.7
3	2.8	2.0
4	3.3	2.4
5	3.9	2.8
6	4.7	3.3
7	5.6	3.9
8	6.7	4.5
9	7.9	5.3
10	9.4	6.3
11	11.2	7.3
12	13.3	8.6
13	15.6	10.0
14	18.4	11.7
15	21.6	13.7
16	25.3	15.9
17	29.4	18.51
18	>30	21.5
19	>30	24.8
20	>30	27.5
21+	>30	>30

10-Year CVD Risk: _____ %

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 42 of 54**

WHO/ISH risk prediction chart for EMR B

10-year risk of a fatal or non-fatal cardiovascular event by gender, age, systolic blood pressure, total blood cholesterol, smoking status and presence or absence of diabetes mellitus.
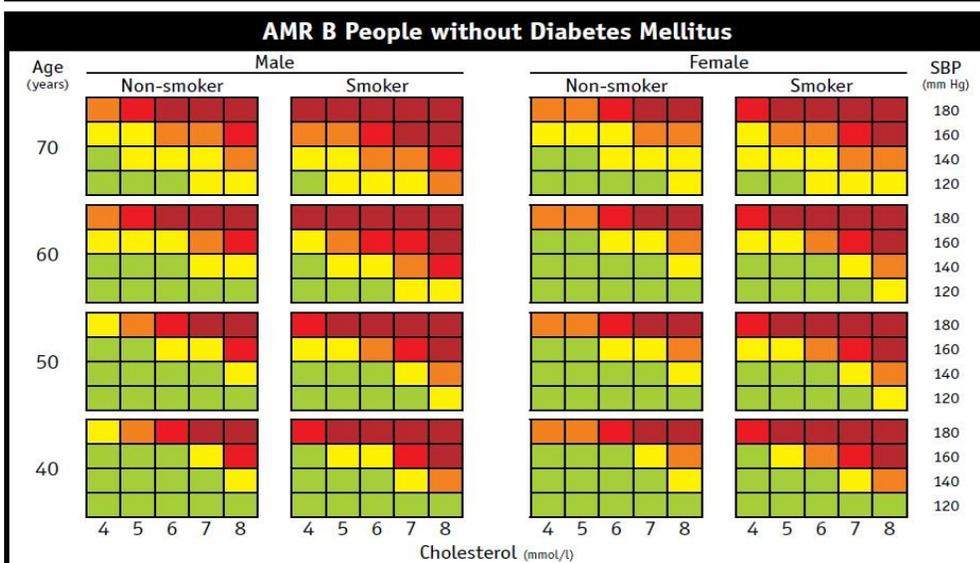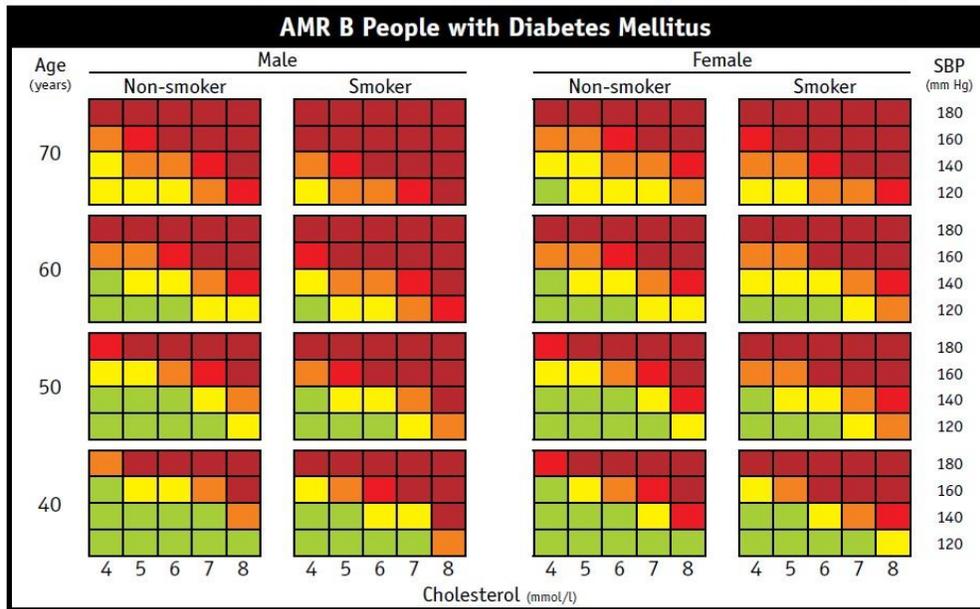
This chart can only be used for countries of the WHO Region of Eastern Mediterranean, sub-region B, in settings where blood cholesterol can be measured (see Table 1).

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 43 of 54**

APPENDIX 7: RISK CATEGORY FOR CARDIOVASCULAR DISEASE.

Risk category	Follow up timeline
High risk	Offered the first follow up appointment to the primary/secondary care within a period of 2 weeks.
Medium risk	Offered the first follow up appointment to their family physician / secondary care within a period of 2 months
Low risk	General health assessment through periodic health screening clinics as indicated in the timeline. (Appendix 1)

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 44 of 54**

APPENDIX 8: CANCER SCREENING SUMMARIZED ACCORDING TO THE UAE MINISTRY OF HEALTH & PREVENTION NATIONAL GUIDELINES FOR CANCER SCREENING

Breast Cancer Screening (females 40 years and over) – All females over 40 years are advised to attend breast screening (a mammogram) every 2 years. If they have other risk factors, such as a family history of the disease or a known inherited genetic mutation, regular screening may start earlier as per clinician's advice.

Cervical Cancer Screening (females 25-65 years): All sexually active women, symptom free, aged 25- 65 years (married, divorced, widowed) residing in the UAE, are eligible for screening, except where exclusion criteria for screening apply. The test is done every three years for women aged 25-49 years; and every 5 years for women aged 50-65 years.

Colorectal cancer screening (males and females aged 40-75 years): available to males and females aged 40-75 years are advised to do a Fecal Immunochemical Test (FIT) every two years or undergo colonoscopy, every 10 years.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029   **Page 45 of 54**

APPENDIX 9: INDICATIONS FOR BONE MASS DENSITY (BMD) TESTING.

Older Adults (age ≥ 50 years)	Younger Adults (age < 50 years)
• All women and men age _ 65 years • Menopausal women, and men aged 50-64 years with clinical risk factors for fracture: – Fragility fracture after age 40. – Prolonged glucocorticoid use†. – Other high-risk medication use*. – Parental hip fracture. – Vertebral fracture or osteopenia identified on X-ray. – Current smoking. – High alcohol intake. – Low body weight (< 60 kg) or major weight loss (>10% of weight at age 25 years). – Rheumatoid arthritis. – Other disorders strongly associated with osteoporosis e.g. primary hyperparathyroidism, type 1 diabetes, osteogenesis imperfecta, uncontrolled hyperthyroidism, hypogonadism or premature menopause (< 45 years), Cushing's disease, chronic malnutrition or malabsorption, chronic liver disease, COPD and chronic inflammatory conditions (e.g., inflammatory bowel disease)	• Fragility fracture. • Prolonged use of glucocorticoids. * • Use of other high-risk medications. • Hypogonadism or premature menopause. • Malabsorption syndrome. • Primary hyperparathyroidism. • Other disorders strongly associated with rapid bone loss and/or fracture.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 46 of 54**

WHO definitions based on BMD measurements at the spine, hip or forearm by DEXA scan.

Category	BMD range	T-score
Normal	Within 1 SD* of a "young normal" adult. normal" adult.	At -1.0 and above
Low bone mass (osteopenia)	Between -1.0 and -2.5 SD* below of a "young	Between -1.0 and -2.5
Osteoporosis	BMD is 2.5 SD* or more below that of a "young normal" adult	At or below -2.5

*SD is Standard deviation.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 47 of 54**

APPENDIX 10: PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9).

PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9)

Over the last 2 weeks, how often have you been bothered by any of the following problems? (use " " to indicate your answer

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things.	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3.Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4.Feeling tired or having little energy	0	1	2	3
5.Poor appetite or overeating	0	1	2	3
6.Feeling bad about yourself...or that you are a failure or have let yourself or your family down	0	1	2	3
7.Trouble concentrating on things. such as reading the newspaper or watching television	0	1	2	3
8.Moving or speaking so slowly that other people could have noticed. or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9.Thoughts that you would be better off dead, or of hurting yourself.	0	1	2	3

FOR OFFICE CODING 0 + _____ + _____ + _____ =Total Score: _____

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all _____ Somewhat difficult _____ Very difficult _____ Extremely difficult _____

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 48 of 54**

PHQ-9 Patient Depression

Questionnaire For initial diagnosis:

1. Patient completes PHQ-9 Quick Depression Assessment.

2. If there are at least 4 ☐ s in the shaded section (including Questions #1 and #2), consider a depressive disorder.

Add score to determine severity.

Consider Major Depressive Disorder

- If there are at least 5 ☐ s in the shaded section (one of which corresponds to Question #1 or #2)

Consider Other Depressive Disorder

- if there are 2-4 ☐ s in the shaded section (one of which corresponds to Question #1 or #2) Note: Since the questionnaire relies on patient self-report, all responses should be verified by the clinician, and a definitive diagnosis is made on clinical grounds taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient.

Diagnoses of Major Depressive Disorder or Other Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

To monitor severity over time for newly diagnosed patients or patients in current treatment for depression:

1. Patients may complete questionnaires at baseline and at regular intervals (e.g., every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 49 of 54**

2. Add up ☐ s by column. For every ☐: Several days = 1 More than half the days = 2 Nearly every day = 3

3. Add together column scores to get a TOTAL score.

4. Refer to the accompanying PHQ-9 Scoring Box to interpret the TOTAL score.

5. Results may be included in patient files to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention. **Scoring: add up all checked boxes on PHQ-9**

For every ✓ Not at all = 0; Several days = 1; More than half the days = 2; Nearly every day = 3

Interpretation of Total Score.

Total Score	Depression Severity
1- 4	Minimal depression
5 - 9	Mild depression
10 - 14	Moderate depression
15 - 19	Moderately severe depression
20 - 27	Severe depression

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 50 of 54**

APPENDIX 11: THE GENERALISED ANXIETY DISORDER ASSESSMENT (GAD-7) SCREENING TOOL.

GAD-7 Anxiety

Over the last two weeks, how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid, as if something awful might happen	0	1	2	3

Column totals _____ + _____ + _____ + _____ =

Total score _____

If you checked any problems, how difficult have they made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
☐	☐	☐	☐

Source: Primary Care Evaluation of Mental Disorders Patient Health Questionnaire (PRIME-MD-PHQ). The PHQ was developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke, and colleagues. For research information, contact Dr. Spitzer at ris8@columbia.edu. PRIME-MD® is a trademark of Pfizer Inc. Copyright© 1999 Pfizer Inc. All rights reserved. Reproduced with permission

Scoring GAD-7 Anxiety Severity

This is calculated by assigning scores of 0, 1, 2, and 3 to the response categories, respectively, of "not at all," "several days," "more than half the days," and "nearly every day."
GAD-7 total score for the seven items ranges from 0 to 21.

0–4: minimal anxiety

5–9: mild anxiety

10–14: moderate anxiety

15–21: severe anxiety

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 51 of 54**

APPENDIX 12: THE SCOFF QUESTIONNAIRE.

SCOFF Questionnaire

(Useful Eating Disorder screening questions)

The **SCOFF** Questionnaire is a five-question screening tool designed to clarify suspicion that an eating disorder might exist rather than to make a diagnosis. The questions can be delivered either verbally or in written form.

S – Do you make yourself **S**ick because you feel uncomfortably full?

C – Do you worry you have lost **C**ontrol over how much you eat?

O – Have you recently lost more than **O**ne stone (6.35 kg) in a three-month period?

F – Do you believe yourself to be **F**at when others say you are too thin?

F – Would you say **F**ood dominates your life?

An answer of 'yes' to two or more questions warrants further questioning and more comprehensive assessment

A further two questions have been shown to indicate a high sensitivity and specificity for bulimia nervosa. These questions indicate a need for further questioning and discussion.

1. Are you satisfied with your eating patterns?

2. Do you ever eat in secret?

Luck, A.J., Morgan, J.F., Reid, F., O'Brien, A., Brunton, J., Price, C., Perry, L., Lacey, J.H. (2002), 'The SCOFF questionnaire and clinical interview for eating disorders in general practice: comparative study', *British Medical Journal*, 325,7367, 755 - 756.

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 52 of 54**

APPENDIX 13: VACCINES IN ADULT IMMUNIZATION SCHEDULE (FROM THE DHA CLINICAL GUIDELINES FOR BEST PRACTICE IN IMMUNIZATION).

Vaccines	Abbreviations
Haemophilus influenzae type b vaccine	Hib
Hepatitis A vaccine	Hep A
Hepatitis A and hepatitis B vaccine	HepA-HepB
Hepatitis B vaccine	Hep B
Human papillomavirus vaccine	9vHPV
Influenza vaccine (inactivated)	IIV
Influenza vaccine (live, attenuated)	LAIV4
Influenza vaccine (recombinant)	RIV4
Measles, mumps, and rubella vaccine	MMR
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-D MenACWY-CRM MenACWY-TT
Meningococcal serogroup B vaccine	MenB-4C MenB-FHbp
Pneumococcal 13-valent conjugate vaccine	PCV13
Pneumococcal 15-valent conjugate vaccine	PCV15
Pneumococcal 20-valent conjugate vaccine	PCV20
Pneumococcal 23-valent polysaccharide vaccine	PPSV23
Tetanus and diphtheria toxoids	Td
Tetanus and diphtheria toxoids and acellular pertussis vaccine	Tdap
Varicella vaccine	VAR
Zoster vaccine, recombinant	RZV

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No:** V1.0 **Issue Date:** 11/03/2024 **Effective Date:** 11/05/2024 **Revision Date:** 11/03/2029 **Page 53 of 54**

APPENDIX 14: HEALTH STATUS PARAMETER VALUES FOR INTERVENTION.

No.	Heath Status Parameter	Reference threshold values for intervention		
		Low	Moderate	High
1	10 years cardiovascular risk score	<10%	10-20%	>20%
2	Body Mass index (BMI)	18.5 – 24.9 %	25 – 29.9 %	≥ 30
3	Waist Circumference (WC) Men	< 94 cm	94 - 102 cm	>102 cm
4	Waist Circumference (WC) Women	< 80 cm	80 - 88 cm	>88 cm
5	Blood pressure	< 130/80	130/80 - < 140/90	≥ 140/90
6	Fasting Blood Sugar	< 5.6 mmol/l	5.6 – 6.9 mmol/l	≥ 7 mmol/l
7	HbA1c	< 5.7	5.7 – 6.4	≥ 6.5
8	Total Cholesterol level	< 5.2 mmol/l	5.2 – 6.19 mmol/l	≥ 6.2 mmol/l
9	HDL Level	> 1.55 mmol/l	1.03 - ≤ 1.55	< 1.03 mmol/l
10	LDL level	≥ 4.13mg/dl + 10 yrs CVR score < 10 %	≥ 3.36mg/dl + 10 yrs CVR score 10 – 20 %	≥ 2.58 + 10 yrs CVR score ≥ 20%
11	Triglyceride Level	<1.71mmol/l	1.71 – < 2.28 mmol/l	2.28 – 5.7 mmol/l > 5.7 critically high
12	Depression Score	≤ 4	5-14	≥ 15
13	DEXA-scan score (BMD)	BMD ≥ - 1.0 SD	BMD – 1.0- <-1.0 to -2.5 SD	BMD ≤ - 2.5 SD
14	Vitamin D	≥ 30 ng/l	20 – 30 ng/l	< 20 ng/l

Dubai Periodic Health Screening Guideline

Code: DHA/PHPD/CG-01 **Issue No**: V1.0 **Issue Date**: 11/03/2024 **Effective Date**: 11/05/2024 **Revision Date**: 11/03/2029 **Page 54 of 54**