وقايـــة
Weqaya
المركـز الوطـني للوقـايـة من الأمـــراض ومكـافحتهـا
Saudi Center for Disease Prevention and Control

National Guideline for Periodic Health Examination

Second Edition
1440H – 2019 G
Riyadh - KSA

Content

Preface

In accordance with the Kingdom's 2030 Vision to implement the health system aims to promote, protect and restore the health of both individuals and the society; meanwhile transforming the health system to be dynamic, technology enabled, as well as fosters both preventive and therapeutic health services for both individuals and the society.

The Saudi Center for Disease Prevention and Control, has the responsibilities of public health; commissioned the Periodic Health Examination (PHE) guideline update.

The ensuing second edition may be regarded as an atlas of preventive medicine interventions for our practitioners in Primary Health Care setting. It also contributes to a systematic evaluation by analyzing quality, effectiveness and efficiency depending on evidence-based procedures.

I appreciate the invaluable efforts of the scientific committee in updating this guideline. I am confident that this edition will be of immense benefit to our health care professionals and the community at large.

Looking forward, to improve the nation's health.

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Chief Executive Officer,
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Acknowledgement

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Chapter-I
Guideline Methodology

1.1 - Introduction

Healthcare providers are often faced with difficult decisions and considerable uncertainty while treating patients. They rely on the scientific literature, in addition to their background knowledge, skills, experience, and patient preferences, to inform their clinical decisions. This program aimed to create an efficient, easy-to use memory aid that would remind family physicians evidence-based recommendations to use during periodic health examination. Such tool would offer family physicians rigorously evaluated task force recommendations in a format that would be easy to use in everyday practice.

Clinical Practice Guidelines (CPGs) are one of the tools that help to minimize inappropriate variation in clinical practice and to improve the effectiveness, efficiency and safety of clinical decisions. CPGs are statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence based on assessment of the benefits and harms of alternative care options (1).

Recommendations for screening come from various organizations and are constantly changing, rendering health promotion and disease prevention a daunting task. Currently, navigating the plethora of available information in a search of prevention guidelines is overwhelming. There is a need for regular updates through systematic literature reviews. Piecing together these guidelines into a single summary table for practical use in a busy clinical setting simplifies access to information and allows practitioners to provide preventive care in an efficient, evidence-based practice.

Chronic diseases management is an economic burden to the health care system (2). Savings through prevention have been explored by several sources, with emphasis on quality of life and increase in years lived (3,4).

By facilitating opportunities for prevention through easy access to best-practice guidelines, the incidence of chronic disease might decrease, resulting in improved patient-centred care and reducing cost and economic burden on the health care system.

Adequately implemented, CPGs have the potential of reducing variability and translating scientific research into clinical practice and consequently improve the quality and safety of healthcare (5,6). However, scientific knowledge is in constant change; therefore, CPGs need to be updated regularly to maintain validity (7). The obsolescence of a CPG might occur because of new scientific research, including the development of new technologies in treatment, diagnosis, economic differences, or changes in values and preferences (8,9). Updating CPGs is therefore an essential matter to be addressed in order to ensure the validity and quality of CPGs recommendations.

1-2 - Updating methodology:

Since the publication of this guideline in 2015, new evidence and several key recommendations emerged which lead the Saudi Center for Disease Prevention and Control (SCDC) to update this guideline. A committee was formed to update the guideline. The committee involved candidates who participated in the first edition, with exception of three candidates. The contributors involved have an experience in the field of family and community medicine, in addition to their experience in the field of clinical practice guidelines development.

The committee had several meetings with the stakeholders. The committee formed a task group to check and monitor the consistency of the available guideline and to identify the evidence for update since the publication. Three components were searched; identification of new evidence, assessment of the need to update, and the formulation of new or modified recommendations (7-10). Four teams were formed, each team was assigned to specific age group, to review and search for new evidence and recommendations emerged since the publication of this guideline in 2015. The team agreed to use the same previously adapted guidelines United States Preventive Services Task Force (USPSTF) (11), The Canadian Task Force on Preventive Health Care (CTFPHC) (12) and Royal Australian College of General Practitioners (RACGP) (13) which were used to fill the gaps.

The team assigned one of the contributors to check the methodological process suitable to update the guideline. Three guideline manuals: Developing NICE guidelines: manual (8), A guideline developer's handbook (14) and Updating Clinical Practice Guidelines in the Spanish National Health System: Methodology Handbook (7) were revised to find out suitable updating meth odology. All the three guidelines agreed in the partial/ exceptional method. The team agreed on exceptional (partial) update decision which allows to update small number of recommendation. Exceptional updates may also be triggered by identification of errors in a guideline after publication. Putting these recommendations in action, the team decided to keep the previous methodology and appraisal. Stakeholder was informed for changes(-see Annex)

Vision:

To achieve health promotion to all Saudis community.

Mission:

To provide gold standard evidence based, age appropriate, preventive and promotive health care through family practice in primary health care setting.

Values:

- Holistic approach
- Respect and involvement
- Access of care
- Needs and preference
- Empowerment
- Justice and Equity
- Quality and Excellence

Objectives:

- To adapt an evidence-based guideline that focuses on comprehensive primary preventive care.
- To implement the recommended screening and preventive services to all age groups at primary health care setting.

1-3 - Guidelines milestones:

The General directorate of Health Centers Affairs and Health Programs in 2013 nominated a team to develop Periodic Health examination (PHE) program to be implemented in Primary Health Care centers.

The team had several meetings with the stakeholders to draw the road map for the program. The team selected a group of physicians who have an interest in evidence based medicine and guideline adaptation. Two workshops were followed first situational analysis was done to clarify if the program is already implemented or not, secondly a group had been selected to search national and international guidelines regarding Periodic Health examination. Another workshop was attended after completing the task.

The main aim of the work group was:

- To produce an applicable, practical and friendly user guideline for health care professionals.
- To formulate an evidence based updated recommendations for PHE.

1-4 - Methodology for Guideline Appraisal:

Clinical practice guidelines (CPG) are systematically developed recommendations for appropriate health care for specific clinical circumstances. CPG reduces discrepancies between scientific evidence and clinical practice, have potential to improve the quality of care delivered.

Translating recommendations into practice require physicians 'adherence to the guideline. However, implementing guidelines is not without obstacles, patient preferences, inadequate facilities or resources, guideline complexity and physician preference and unfamiliarity are some of these. Many of these concerns may be minimized during development processes by adapting methodologies to achieve the appropriate standards of quality (15).

The clinical scope of services and purpose of the guideline and its relevance to practice was defined. Stakeholders and professional group were involved in the process.

Piloting the guideline may ensure practicability and applicability including consideration of organizational barriers and cost implications.
The credibility of guidelines also depends on editorial transparency and independence from funding bodies and in declaration of conflicts of interest by the developers.

The purpose of this document guideline is to provide an overview of the principles and methods of assessment and appraisal used within the context of the guideline's appraisal process.

Methodological Process:

The appraisal of the PHE guideline was dependent on the tools for appraisal to assess the quality, consistency, applicability and accessibility.

Scope and purpose:

- To provide evidence-based approach to implement PHE in our community.
- To reduce unnecessary interventions and use best health promotion activities.
- To improve quality of life to the community members.

1-5 - Adaptation Phase:

Preparation:

Guideline Adaptation	2013	2014	2019 update
Forming PHE central committee	√	--	√
Identify the need for implementing PHE guideline	√	--	√
Meeting with stakeholders	√	--	√
Proposed action plan (agreeing timelines, milestones)	√	--	√
Selecting guideline adapting group	√	--	√
Workshop for guideline appraisal and literature review	√	--	√
Task distribution to the guideline adapting group	√	--	√
Appraisal of the guidelines	√	--	--
Creating guideline recommendations	√	--	√
Guideline revision	--	√	√
Guideline editing	--	√	√
Internal reviewers	--	√	√
External reviewers	--	√	--
Guideline printing	--	√	**online**

1-5-1- The clinical question for searching:

(**P**) Whole population.
(**I**) To prevent and promote health of the population by applying PHE.
(**P**) Family physicians, General practitioners, nurses, health educators.
(**O**) Improve quality of life and reduce the use of unnecessary intervention.
(**H**) Primary Health care settings.

1-5-2 - Searching engine for guidelines:

Based on the clinical question, database has been searched in the following sites: US National Guideline Clearinghouses, US Preventive Services Task Force (USPSTF), Guidelines International Network, MEDLINE search, Cochrane, National Institute of Clinical Excellence (NICE), Scottish Intercollegiate Guidelines Network (SIGN), The Royal Australian College of General Practitioners (RACGP) and Canadian Task Force on Preventive Health Care (CTFPHC).

Retrieved guidelines reviewed for date of publication, release and language. None English guidelines were excluded.

Ten guidelines retrieved and assessed by the panel; seven guidelines were excluded, as they were not relevant to the key question, currency and applicability in our community.

Critical appraisal using AGREE tool was performed to assess the quality, content, consistency, acceptability and applicability of these guidelines (16).

US Preventive Services Task Force rated high score; the panel decided to adapt this guideline as the main source. Gaps were identified; RACGP, and CTFPHC guidelines were used to fill the gaps. Strength was based on the stated recommendation grading criteria, the panel members reach a consensus after discussing the recommendations which fill the gap based on currency, applicability and prevalence of the condition in our setting.

1-5-3 - Grade Definitions After July 2012, USPSTF assigns one of five letter grades (A, B, C, D, or I).

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

1-6- Implementation strategies:

- Adapt the concept of PHE for health promotion.
- Integrate PHE program in primary health care setting.
- Implement recommendations for PHE based on scientific evidence.
- Training and continuing medical education for end users.

1-6-1- Implementation Phase:

	2014	2015	2019 update
Training of trainers workshops	√	--	--
Pilot phase	√	--	--
Evaluation of the pilot phase	√	--	--
Dissemination	--	√	Online
Evaluation	--	√	√
Updating the guideline	--	√	√

1-6-2- Expected barriers for implementation:

- Limited resources at Primary Health Care Centers.
- Lack of trained motivated staff.
- Unawareness of the community on preventive services.
- Organizational barriers.
- Ineffective referral system.

1-7- Funding Body:

None.

1-8- Stakeholders:

National Center for Disease Prevention and Control

1-9- Conflict of Interest:

No financial or conflict of interest to disclose.

1-10- Update Process:

This guideline will be updated every 3 years unless new evidence emerges.

Chapter-II

Guideline Content – Forms

Name: ..... **Gender**:.....**RN**: .....**DOB**: ..... **Tel**:.....

Periodic Health Examination Checklist (Under 6 years)

		Date (Month/Year)	2m	4m	6m	9m	1yr	18 m	2 yr	3yr	6yr	Grade of Evidence
COUNSELING*		Breast Feeding										B
		Passive Smoking										A
		Accident Prevention										A
		Sun Exposure & Vit D[1]										
PHYSICAL EXAMINATION	PHYSICAL EXAMINATION	Developmental Mile Stones[2]										
		Growth Parameters										
		Posterior Fontanel										
		Anterior Fontanel										
		Dental health and floride[3]										B
		Vision[4]										
		√ Red Reflex										B
		√ Corneal Light Reflex for Ocular Alignment (Hirschberg test)										
		√ Cover -uncover Test for Amblyopia										B
		√ Visual Acuity Testing										
		Ears / Hearing screening[5]										B
		CVS										
		Abdomen										
		Hernia										
		Genitalia/ Circumcision										
		Lower Limbs										
		Skin										
	Labs	ABO/RH (if not done)										A
		CBC										
		SICKELING Test (If not done)[6]										A
		G6PD Test (If not done)[7]										
		PKU Test (If not done)	New born screening program									A
		TFT for Congenital Hypothyroidism	New born screening program									A
Chemoprophylaxis	Medications	Iron supplement										
		Vitamin K[8] iron[9]										
		Fluoride[10]										B
		Erythromycin eye drops										A
		Vitamin D3[11]										
		National EPI program table(1)										
		Catch up vaccination: table(2)										

User Guide:

*Counseling frequency will depend on doctor's clinical judgment and case assessment.
- Refer to index for counseling details and content.
- The above recommendations must be read along with the footnotes.
- The colored box means: The screening test is not recommended at this age and need to be performed only when clinically indicated.

PHE format documentation method:
- Document the date of attendance in the box which include (month/year).
- Detailed information to be documented in patient's health record progress note.

Periodic Health Examination under 6 years Foot Note

(1) Sun Exposure & Vitamin D
Recommended Dietary Allowance (RDAs) for Vitamin D:

Age	RDAs
0-12 months	400 IU (10 mcg)
1-13 years	600 IU(15 mcg)

5–30 minutes of sun exposure between 10 AM and 3 PM at least twice a week to the face, arms, legs, or back without sunscreen.

2) Developmental Mile Stones
- Denver Developmental Chart up to 6 years to assess child development.
- Growth charts: use appropriate age- sex specific growth charts to monitor child growth. Use BMI charts from age 2 years. Use the following charts
Infants: to 36 months:
- Length-for-age and Weight-for-age
- Head circumference-for-age and Weight- for-length

Children and adolescents, 2 to 20 years
- Stature-for-age and Weight-for-age
- BMI-for-age

The Posterior Fontanelle: usually cannot be palpated after two months of age;
The anterior fontanelle generally closes between 10 - 24 months of age. The fontanelles of premature infants tend to close at a later time

(3) Dental health:
Counseling and dental examination.
Dental referral from 12 months of age then annually.
for Children from Birth Through Age 5 Years
primary care clinicians should refer the baby for topical fluoride like varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption.

(4) vision
(4-1) The Red Reflex Procedure:
-The red reflex is much easier to see in a darkened room, so switch off the lights,
-Use a direct ophthalmoscope with the lens power set at '0'.
-Sit about half a meter (50 cm) away. Hold the ophthalmoscope close to your eyes.
-Encourage the child to look at the light source and direct the light at the child›s eyes individually and together. You should see an equal and bright red reflex from each pupil.
-Pay attention to the colour and brightness of the red reflex. It should be identical in both eyes. Any difference between the eyes, an absence of the red reflex or an abnormal colour may indicate a serious illness

(4-2) The Corneal Light Reflex (Hirschberg Test): For testing eye alignment. When a light source is held directly in front of a patient who is staring straight ahead, normal eye alignment will reveal a symmetric reflex in the center of each pupil. If the light reflex in one eye is inwardly displaced, that eye is exotropic; if outwardly displaced, it is esotropic; and if inferiorly displaced, it is hypertropic.. The presence of an esotropia after the age of 2 months or an exotropia after the age of 6 months suggests an abnormality and needs ophthalmologist evaluation.

(4-3) The Cover-uncover Eye Test is a more accurate test for ocular alignment in the cooperative patient. Testing is done at 3 years of age with the patient looking first at a near object and then at a far object. As the patient fixates on the object, one eye is rapidly covered with a hand or occluded, and the other eye is observed for movement. Normally, neither eye should move as they are alternately tested. If this is not corrected early it can lead to blindness

(4-4) Visual Acuity Testing: (Refer to National Screening Guideline for Detection of Avoidable Blindness at PHC 2014 first ed.)

(5) Hearing: Evaluate gross hearing by observing an infant›s response to sound; a startle response, eye blinking and turning toward the sound is normal reaction.
- Older children, whispering test can be used.
- Refer child at 3 years of age for standardize audiometric testing to ENT.- (Refer to Prevention of Hearing Impairment in PHC

(6-7) Sickling and G6PD tests: are requested if not done. Sickling test for Newborn should be done using thin layer isoelectric focusing (IEF) or high performance liquid chromatography (HPLC). Sickling test can be performed at 9 months.

(8) Vitamin K injection: A single dose (1.0 mg) of intramuscular vitamin K after birth is effective in the prevention of classic HDN. Either intramuscular or oral (1.0 mg) vitamin K prophylaxis improves biochemical indices of coagulation status at 1-7 days.

(9) Iron supplementation: The AAP recommends that full-term, exclusively breastfed infants start 1 mg per kg per day of elemental iron supplementation at 4 months of age until appropriate iron-containing foods are introduced. Formula-fed infants often receive adequate amounts of iron (average formula contains 10 to 12 mg per L of iron) and thus rarely require further supplementation

(10) floride supplements
Prescribe oral fluoride supplementation starting at age 6 months for children whose water supply is deficient in fluoride so ask about water source:

Age	<0.3 ppm F	0.3 to 0.6 ppm F	>0.6 ppm F
0-6 months	0	0	0
6 m- 3yrs	0.25 mg	0	0
3-6 years	0.50 mg	0.25 mg	0

Ref. AMERICAN ACADEMY OF PEDIATRIC DENTISTRY2018

(11) Infants who are exclusively breastfed or receive less than 1 liter of formula daily should be supplemented with ٤٠٠ IU of vitamin D daily, starting in the first few days of life and continuing until they are ١٢ months of age. Supplementation should continue until the baby is weaned to at least (1 L) of whole milk per day. Whole milk should not be used until after ١٢ months of age. Vit D supplement may be increased to ٦٠٠ IU for age 1 year through adolescence

Name: .....Gender:.....RN: .....DOB: .....Tel.....

Periodic Health Examination Checklist (6-17 years)

			Date (Month/Year)	7	8	9	10	11	12	13	14	15	16	17	Grade of Evidence
COUNSELING*			Intimate Partner Violence and Abuse												B
			Smoking Status & Cessation												A
			Sun Exposure & Vit D[1]												
			STIs												B
			Depression[2]												B
			Oral Hygiene[3]												-
SCREENING	CLINICAL EXAMINATION		BMI Percentile[4] **Obesity in Children and Adolescents: Screening**												B
			Mouth Examination												
	LABS	STIs[5]	HIV												A
			Chlamydia												B
CHEMOPROPHYLAXIS	MEDICATIONS		Folic Acid[6]												A
			Fluoride[7]												
	IMMUNIZATION		Influenza (Flu vaccine)												
			Tdap/Td												
			Varicella (catch up)												
			MMR (catch up)												
			PCV13												
			PPSV23												
			Meningococcal												
			IPV catch up or OPV												
			Hepatitis A (catch up)												
			Hepatitis B (catch up)												
			Haemophilus Influenzae Type b (Hib)												

User Guide:

Refer to index for counseling tips and content.
- The above recommendations must be read along with the footnotes.

*Counseling frequency will depend on doctor›s clinical judgment and case assessment.

** For recommended immunization based on age refer to table(Ꝑ)and for catch up vaccination in adolescent refer to table(4)

PHE format documentation method:
- Document the date in the box which include (month/year).
- Detailed information will be documented in patient's health records progress note.

Periodic Health Examination Checklist (6-17) Foot note

(1) Sun Exposure and Vitamin D:
5–30 minutes of sun exposure between 10 AM and 3 PM at least twice a week to the face, arms, legs, or back without sunscreen. Individuals with limited sun exposure need to include good sources of vitamin D in their diet or take a supplement to achieve recommended levels of intake.
Recommended Dietary Allowance (RDAs) for Vitamin D3(cholecalciferol):

Age	RDAs
1-13 years	600 (15 mcg)

(2) Depression screening:
The USPSTF recommends screening for major depressive disorder (MDD) in adolescents aged 12 to 18 years. Screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up.

(3) Oral Hygiene:
Support tooth brushing in children.& recommend personal tooth brushing and flossing in adults to prevent gingivitis
- weak scientific evidence to recommend oral hygiene for the prevention of periodontitis

(4) BMI Plotting Charts: Children and adolescents, 2 to 20 years plot the following growth charts annually
- Stature-for-age and Weight-for-age
- BMI-for-age
  - Overweight: age and gender specific BMI at ≥85th to 94th percentile.
  - Obesity : age and gender specific BMI at ≥95th percentile

(5) Follow National Protocol for Sexually Transmitted Infections.

(6) Folic Acid
All women planning or capable of pregnancy should take a daily supplement containing 0.4 to 0.8 mg (400 to 800 µ g) of folic acid at least 1 month before conception and to continue daily supplements through the first 2 to 3 months of pregnancy

(7) Fluoride:
Children aged > 6 years are considered past the age that fluoride ingestion can cause cosmetically objectionable fluorosis because only certain posterior teeth are still at a susceptible stage of enamel development.
Ask about water source:
- If <0.3ppm give fluoride 1 mg /day
- If (0.3-0.6 ppm) give 0.5 mg /day
- If (> 6 ppm) no needs for fluoride supplement

Name: .....Gender:.....RN: .....DOB: .....Tel.....

Periodic Health Examination Checklist (18-59 years)

		Date (Month/Year)										Grade of Evidence
COUNSELING*		Breast Feeding										B
		Intimate Partner Violence and Abuse										B
		Behavioral Counseling For STDs										B
		Smoking Cessation										A
		Oral hygiene[1]										
		Alcohol abuse[2]										
		Sun Exposure and Vitamin D deficiency										
		Behavioral Counseling for Obesity[3]										B
		Depression[4]										B
SCREENING	CLINICAL EXAM	BMI & Waist Circumference[5]										
		Blood Pressure Measurmen[6]										A
		Mouth Examination										
	LABS	Blood Sugar Testing[7]										B
		Fasting Lipid Profile[8]										B
		Pap Smear[9]										A
		Mammogram[10]										B
		STI[11]	Chlamydial									B
			Gonorrhea									B
			Syphilis									A
			HIV									A
		Colon Cancer[12]	Fecal Occult									A
			FIT=fecal immunochemical									
			Sigmoidoscopy									
			Colonoscopy									
		DEXA[13]										B
CHEMOPROPHYLAXIS	MEDICATIONS	Aspirin[14]										B
		Folic Acid[15]										A
	IMMUNIZATION**	Influenza										
		Tdap/Td										
		Varicella										
		MMR (Catch up)										
		Pneumococcal (PCV13)										
		Pneumococcal (PPSV23)										
		Meningococcal										
		Hepatitis A										
		Hepatitis B										
		Haemophilus Influenzae Type b (Hib)										

User Guide:
- Refer to index for counseling tips and content.
- The above recommendations must be read along with the footnotes.

*Counseling frequency will depend on doctor›s clinical judgment and case assessment.

** For recommended immunization based on age refer to table(2)and for catch up vaccination in adult refer to table(4)

PHE format documentation method:
- Document the date in the box which include (month/year).
- Detailed information will be documented in patient's health records progress note

Periodic Health Examination Checklist (18-59 years) Foot Note

(1) Oral Hygiene:
- Adults good evidence to recommend personal tooth brushing and flossing to prevent gingivitis
- weak scientific evidence to recommend oral hygiene for the prevention of periodontitis

(2) screening for unhealthy alcohol use in primary care settings in adults 18 years or older, including pregnant women, and providing persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy alcohol use

(3) Weight Loss to Prevent Obesity-Related Morbidity and Mortality in Adults: Behavioral Interventions
clinicians offer or refer adults with a body mass index (BMI) of 30 or higher (calculated as weight in kilograms divided by height in meters squared) to intensive, multicomponent behavioral interventions

(4) Depression Screening: Ask 2 simple questions about: Mood and loss of interest in the past 2week.

(5) Check BMI & Waist Circumference / 2years in all adults aged over 18 years

(6) Blood Pressure Recommendations: LOE: A
Screen for high blood pressure in adults aged 18 years or older. Obtain measurements outside of the clinical setting for diagnostic confirmation before starting treatment.
Check BP annually for those who are at increased risk include:
- adults aged 40 years or older
- pre-hypertension (130 to 139/85 to 89 mm Hg),
- overweight or obese
- African Americans.
- Adults aged 18 -39 years with normal blood pressure (<130/85 mm Hg) who do not have other risk factors should be re-screened every 3 to 5 years

(7) Check Fasting Blood Sugar or Hb A1c or RBS starting at the age of 45 years every 3 years
* Screen all adults who are overweight (BMI ≥ 25 kg/ m2) and have additional risk factors:
- Physical inactivity
- First degree relative with DM
- Women who delivered baby more than 4 kg or where
- diagnosed with GDM
- Blood pressure ≥ 140/90 or on therapy for hypertension
- HDL cholesterol level < 35 mg/dl (0.9mmol/l) or TG > 250mg/dl (2.82mmol/l)
- Women with polycystic ovary syndrome
- Impaired glucose tolerance test or impaired fasting glucose. OR HBA1C ≥ 5.7 %
- History of CVD.

(8) Statin: Use a low- to moderate-dose statin for the primary prevention of CVD events and mortality in adults without a history of cardiovascular disease (CVD) (i.e.,
(symptomatic coronary artery disease or ischemic stroke) when all of the following criteria are met:
- Age 40 to 75 years
- Have 1 or more CVD risk factors (i.e., dyslipidemia, diabetes, hypertension, or smoking)
- Have a calculated 10-year risk of a cardiovascular event of 10% or greater
- Family history of premature cardiovascular event
- Obesity and overweight

(9) Pap Smear: The USPSTF recommends screening for cervical cancer in women age 21 to 65 years with cytology (Pap smear) every 3 years or, for women age 30 to 65 years who want to lengthen the screening interval, screening with a combination of cytology and human papillomavirus (HPV) testing every 5 years

(10) Mammogram
- Biennial screening mammography for women between age 50 -74 years
- Women aged 40 - 49 years routine screening should be individualized and should take into account women context, and values regarding specific benefits and harms screening mammography. ((locally The Saudi Expert Panel suggests screening with mammography in women aged 40–49 years every 1 to 2 years). (Conditional recommendation; low-quality evidence) (17)
- Women aged 75 years or older, the evidence to recommend for routine screening is currently insufficient

(11) STI Screening follows National STIs protocol.

(12) Colon Cancer Screening:
- Starts at the age of 50 years and continue until 75 years. (USPSTF)-
- Locally based on American cancer society at the age 45 years (18)
Screening methods: Choose one of the following tests:
- FOBT=guaiac-based fecal occult blood test every year
- FIT=fecal immunochemical test every year
- Flexible Sigmoidoscopy(FSIG) every 5 years
- Colonoscopy every 10 years
-All positive results on non-colonoscopy screening tests should be followed up with timely colonoscopy

(13) Perform DEXA Scan: for women at risk for osteoporosis every1.5 -2 years
- women 65 years and older
- postmenopausal women younger than 65 years increased risk of:
  osteoporotic fractures
  parental history of hip fracture
  smoking
  excessive alcohol consumption
  low body weight.
No recommendation to screen asymptomatic men by USPSTF

(14) Aspirin 81 mg daily
Recommended initiating low-dose aspirin use for the primary prevention of cardiovascular disease (CVD) and colorectal cancer (CRC) in adults aged 50-59 years who have a 10% or greater 10-year CVD risk, are not at increased risk of bleeding, have a life expectancy of at least 10 years, and are willing to take low-dose aspirin daily for at least 10 years

(15) Folic Acid:
All women planning or capable of pregnancy take a daily supplement containing 0.4 to 0.8 mg (400 to 800 µg) of folic acid at least 1 month before conception and to continue daily supplements through the first 2 to 3 months of pregnancy.
Women at high risk for neural tube defects (NTD) like epileptic or DM or previous baby with NTD should take 4mg per day

Name: .....Gender:.....RN: .....DOB: .....Tel.....

Periodic Health Examination Checklist (60 years and above)

		Date (Month/Year)											Grade of Evidence
COUNSELING*		Smoking Status & Cessation											A
		Alcohol Abuse											B
		Fall Assessment and Physical Activities1											B
		Depression[2]											B
SCREENING	CLINICAL EXAMINATION	BMI											
		Blood Pressure Measurement[3]											B
	LABS	Blood Sugar Testing[4]											B
		Fasting Lipid Profile[5]											B
		Mammogram 6											B
		Colon Cancer[6]	Fecal Occult										B
			FIT=fecal immunochemical										B
			Sigmoidoscopy										B
			Colonoscopy										
		DEXA[8]											A
		Abdominal US (Male 65-75) who ever smoked for abdominal aortic[9] aneurysm											
CHEMOPROPHYLAXIS	MEDICATIONS	Aspirin											
		Vitamin D3											
	IMMUNIZATION	Influenza											B
		Td/Tdap											B
		Varicella											B
		Zoster											
		Measles, mumps, rubella (MMR)											
		Pneumococcal (PCV13)											
		Pneumococcal (PPSV23)											
		Meningococcal											
		Hepatitis A											
		Hepatitis B											

User Guide:

Refer to index for counseling tips and content.
- The above recommendations must be read along with the footnotes.

*Counseling frequency will depend on doctor›s clinical judgment and case assessment.

** For recommended immunization based on age refer to table(2)and for catch up vaccination in adult refer to table(4)

PHE format documentation method:
- Document the date in the box which include (month/year).
- Detailed information will be documented in patient's health records progress note

Periodic Health Examination (60 years and above) Foot Note

(1) Fall Assessment and Prevention:
Risk Assessment:
-History of falls
-Mobility problems
-Poor performance on the timed Get-Up (up go test)
Counsel for interventions to minimize risk of fall including:
-Exercise therapy (working on gait, balance, and muscle strengthening in the legs),
- Diet, and vitamin D supplementation
- psychological health and cognition,
- vision, environmental conditions, diet

(2) Depression Screening: Ask 2 simple questions about:
Mood and loss of interest in the past 2week

(3) Blood Pressure Recommendations:
- Annual screening for adults aged ≥ 40 years
. - Obtain measurements outside of the clinical setting for diagnostic confirmation before starting treatment.
-Check BP annually for those who are at increased risk include:
- adults aged 40 years or older
- pre-hypertension (130 to 139/85 to 89 mm Hg),
- overweight or obese
- African Americans.
- Adults aged 18 -39 years with normal blood pressure (<130/85 mm Hg) who do not have other risk factors should be rescreened every 3 to 5 years.

(4) Check Fasting Blood Sugar or Hb A1c or RBS starting at the age of 45 years every 3 years
* Screen all adults who are overweight (BMI ≥ 25 kg/m2) and have additional risk factors:
- Physical inactivity
- First degree relative with DM
- Women who delivered baby more than 4 kg or where - diagnosed with GDM
- Blood pressure ≥ 140/90 or on therapy for hypertension
- HDL cholesterol level < 35 mg/dl (0.9mmol/l) or TG > 250mg/dl (2.82mmol/l)
- Women with polycystic ovary syndrome
- Impaired glucose tolerance test or impaired fasting glucose. OR HBA1C ≥ 5.7 %
- History of CVD

(5) Statin: Use a low- to moderate-dose statin for the primary prevention of CVD events and mortality in adults without a history of cardiovascular disease (CVD) (ie,
(symptomatic coronary artery disease or ischemic stroke) when all of the following criteria are met:
- Age 40 to 75 years
- Have 1 or more CVD risk factors (ie, dyslipidemia, diabetes, hypertension, or smoking)
- Have a calculated 10-year risk of a cardiovascular event of 10% or greater.

(6) Mammogram
- Biennial screening mammography for women between age 50 -74 years
- Women aged 40 - 49 years routine screening should be individualized and should take into account women context, and values regarding specific benefits and harms screening mammography. ((locally The Saudi Expert Panel suggests screening with mammography in women aged 40–49 years every 1 to 2 years). (Conditional recommendation; low-quality evidence) (19)
- Women aged 75 years or older, the evidence to recommend for routine screening is currently insufficient.

(7) Colon Cancer Screening: Choose one of the following tests:
- Starts at the age of 50 years and continue until 75 years. (USPSTF)-
- Locally based on American cancer society at the age 45 years (20)
Screening methods:
- gFOBT=guaiac-based fecal occult blood test every year
- FIT=fecal immunochemical test every year
- Flexible Sigmoidoscopy every 5 years
- Colonoscopy every 10 years.
- All positive results on non-colonoscopy screening tests should be followed up with timely colonoscopy.

(8) DEXA Scan: Perform DEXA Scan: for women at risk for osteoporosis every 1.5 -2 years
- women 65 years and older
- postmenopausal women younger than 65 years increased risk of:
  osteoporotic fractures
  parental history of hip fracture
  smoking
  excessive alcohol consumption
  low body weight.
No recommendation to screen asymptomatic men by USPSTF

(9) Men Ages 65 to 75 Years who Have Ever Smoked
The USPSTF recommends one-time screening for **Abdominal Aortic Aneurysm (AAA)** with ultrasonography in men ages 65 to 75 years who have ever smoked.

Chapter-III
Counseling Skills

3.1- Counseling Skills:

3.1.1- Counseling is a systematic process which gives individuals an opportunity to explore and clarify the ways of living more resourcefully, with a greater sense of well-being.
The counselor's role is to facilitate the client work in a way that respect the client's values, personal resources and capacity for self-determination.

The following skills are necessary for counseling:

3.1.2- Attending Behavior: Involves our behaviors which include paying full attention, in an acceptable and supportive way, to the client. An attempt to build a certain amount of rapport with their client but not to an extent that would allow them to become emotionally involved

3.1.3- Communication Skills:

- Active listening is the most fundamental component of interpersonal communication skills, actively showing verbal and non-verbal signs of listening.
- Effective questioning skills (open-ended questions).
- Clarification: use of open questions to ensure the correct message has been received and to enable expanding on certain points as necessary.
- Paraphrasing (the counselor uses different words to restate in a nonjudgmental way what the client has said. Aiming to help the client to know that the counselor is aware of the client's perspective and has heard what he or she has said.
- Reflective responses (responds to feelings). Affective reflection in an open-ended, respectful manner of what the client is communicating verbally and nonverbally, both directly through words and nonverbal behaviors as well as reasonable inferences about what the client might be experiencing emotionally. It is important for the helper to think carefully about which words he/she chooses to communicate these feelings back to the client.
- Empathetic response: Placing self in the client's situation while remaining objective. Empathizing requires the counselor not to be judgmental and to be sensitive and understanding.
- Negotiation skills (a process by which compromise, or agreement is reached while avoiding argument).
- Structuring and Summarizing: repeating a summary of what has been said back to client in their word.

3.1.4- Advice Skills:

The ability to give advice in a positive, constructive way is an art. Here are three points to help us offer advice with effectiveness and compassion.

- **Listen first.** While this rule is true for all good communication, it is doubly true when we wish to give advice. By first listening, we open a space for the speaker to more fully describe the situation and for us to more fully understand it. In addition, when we listen first, it makes it more likely that the other will then listen to what we have to say.

- **Ask permission.** It can be experienced as un-welcome intrusion into personal business. It might also be seen disrespectful, as implying that a person is incapable of caring for himself and resolving his own issues. Asking if our advice is desired shows respect for others and prevents resentments.

- **Offer without insisting.** It is worth keeping in mind that even after we have listened, we can never know with certainty what is best for another person. By not insisting, we can increase the chances of our words being considered.

COUNSELING CHECK LIST

STEPS	SKILLS	SCORING				
		1	2	3	4	5
Exploration of the problem	Establish good relationship: Welcome the client greets him, introduce yourself					
	Call by name or the name he likes, marital status, job					
	Use helpful non-verbal communication Suitable position posture and proper eye contact....					
	Show welcoming and willing to help					
	Attending behavior show interest, give attention, active listening					
	Be sensitive to verbal and non-verbal cues					
	Show empathy					
Enable the client to explore the problem from his own Idea, Concern, Expectation and Effect (ICEE)	Open ended questions,					
	Use paraphrasing,					
	Reflecting feelings					
	Help the client to be specific					
	Summarizing					
	Acceptance & non-judgmental attitude					
Understanding & defining goals	Help the client to recognize behavior pattern, inconsistency and feeling					
	Appropriate sharing of the knowledge, experiences and feeling					
	Reach a new understanding of the problems, See the problem in a new perspective					
	Focus on what to be done to enable the client to cope more effectively					
	Define goals					
Action	Use creative thinking, problem solving and decision making					
	Help the client to consider the action, consider its cost and consequences plan for it, implement it and evaluate it.					

Chapter-IV

Child & Adult Immunization Recommendations

Introduction:

The National Centre for Disease Prevention and Control (NCDC) recommends routine vaccination to prevent 17 vaccine-preventable diseases that occur in infants, children, adolescents and adults. Immunization process stimulate the body's own immune system to protect the person against subsequent infection or disease (WHO). Immunization is an important part of periodic health examination for both children and adults.

The USPSTF transferred immunization program to CDC, where we updated the material from.

Table 1: Vaccines in the Child and Adolescent Immunization Schedule*(21)

Vaccines	Abbreviations	Route Admin
Bacillus Calmette Guerin	B.C.G	Intradermal
Diphtheria, tetanus, and acellular pertussis vaccine	DTaP	IM
Diphtheria, tetanus vaccine	DT	IM
Haemophilus influenzae type b vaccine	Hib (PRP-T) Hib (PRP-OMP)	IM
Hepatitis A vaccine	HepA	IM
Hepatitis B vaccine	HepB	IM
Human papillomavirus vaccine	HPV	IM
Influenza vaccine (inactivated)	IIV	IM
Influenza vaccine (live, attenuated)	LAIV	Intranasal
Measles, mumps, and rubella vaccine	MMR	Subcut
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-D MenACWY-CRM	IM
Meningococcal serogroup B vaccine	MenB-4C MenB-FHbp	IM
Pneumococcal 13-valent conjugate vaccine	PCV13	IM
Pneumococcal 23-valent polysaccharide vaccine	PPSV23	IM or Subcut
Poliovirus vaccine (inactivated)	IPV	IM or Subcut
Rotavirus vaccine	RV1 RV5	Oral
Tetanus, diphtheria, and acellular pertussis vaccine	Tdap	IM
Tetanus and diphtheria vaccine	Td	IM
Varicella vaccine	VAR	Subcut
Combination Vaccines (Use combination vaccines instead of separate injections when appropriate)		
DTaP, hepatitis B, and inactivated poliovirus vaccine	DTaP-HepB-IPV	IM
DTaP, inactivated poliovirus, and Haemophilus influenzae type b vaccine	DTaP-IPV/Hib	IM
DTaP and inactivated poliovirus vaccine	DTaP-IPV	IM
Measles, mumps, rubella, and varicella vaccines	MMRV	Subcut

NOTE:
* Administer recommended vaccines if immunization history is incomplete or unknown.
Do not restart or add doses to vaccine series for extended intervals between doses.
When a vaccine is not administered at the recommended age, administer at a subsequent visit
** BCG local scheduled vaccine

Expanded program of immunization (EPI): For children under 6 years:
Table 2: National immunization schedule (22)

Vaccine	Age Due
At Birth	HB B.C.G
2 months	DTaP Hib IPV HB PCV Rota
4 months	DTaP Hib IPV HB PCV Rota
6 months	DTaP Hib IPV HB PCV Rota OPV
9 months	Measles MCVε
12 months	MMR PCV OPV MCVε
18 months	DTaP, Hib OPV Hep A MMR Varicella
24 months	Hep A
At school entry	OPV DTaP MMR Varicella

Table 3: Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger (21)

These recommendations must be read with the Notes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars in Table 3. To determine minimum intervals between doses, see the catch-up schedule (Table 4). School entry and adolescent vaccine age groups are shaded in gray.

vaccine	Birth	1 mos	2 mos	4 mos		6 mos	9 mos	12 mos	15 mos	18 mos	19-23 mos	2-3 yrs	4=6 yrs	7-10 yrs	11-12 yrs	13-15 yrs	16 yrs	17-18 yrs
HepB	1st dose	2nd dose				→ 3rd dose ←												
RV1 RV5			1st dose	2nd dose		See notes												
DTaP < 7yrs			1st dose	2nd dose		3rd dose			4th dose				5th dose					
Hib			1st dose	2nd dose		3rd dose		3rd o r4th dose										
PCV13			1st dose	2nd dose		3rd dose												
IPV<18yrs			1st dose	2nd dose		→ 3rd dose ←							4th dose					
IIV						Annual vaccination 1 or 2 doses								Annual vaccination 1 dose only				
LAIV												Annual vaccination 1 or 2 doses			Annual vaccination 1 dose only			
MMR						See Notes		1st dose					2nd dose					
VAR								1st dose					2nd dose					
HepA						See Notes		2nd dose series. See Notes										
MenACWY-D≥-9mos MenACWY-CRM≥-2mos															1st dose		2nd dose	
Tdap≥7yrs															Tdap			
HPV															See Notes			
MenB														See Notes				
PPSV23																		

Range of recommended age for all children

Range of recommended ages for catch-up immunization

Range of recommended ages for certain high-risk groups

Range of recommended ages for non-high-risk groups that may receive vaccine, subject to individual clinical decision-making

No recommendation

Table 4: explanation note for table 3

There are general rules for vaccine administration and spacing. It includes the followings: Vaccine doses administered ≤4 days before the minimum age or interval are considered valid. Doses of any vaccine administered ≥5 days earlier than the minimum age or minimum interval should not be counted as valid and should be repeated as age appropriate. The repeat dose should be spaced after the invalid dose by the recommended minimum interval**. (21)**

vaccine	minimum age of admin	Routine vaccination	Catch-up vaccination
DTaP	**6 weeks**	5-dose series at 2, 4, 6, 15–18 months, 4–6 years	Dose 5 is not necessary if dose 4 was administered at age 4 years or older
Hib	**6 weeks**	4-dose series at 2, 4, 6,12–15 months	**Dose 1 at 7–11 months:** Administer dose 2 at least 4 weeks later and dose 3 (final dose) at 12–15 months or 8 weeks after dose 2 (whichever is later). **Dose 1 at 12–14 months:** Administer dose 2 (final dose) at least 8 weeks after dose 1. **Dose 1 before 12 months and dose 2 before 15 months:** Administer dose 3 (final dose) 8 weeks after dose 2. **2 doses of PedvaxHIB before 12 months:** Administer dose 3 (final dose) at 12–59 months and at least 8 weeks after **dose 2. Unvaccinated at 15–59 months:** 1 dose
HepA	**12 months**	2-dose series 6–12 months apart OR 6–18 months apart, minimum interval 6 months	Anyone 2 years of age or older may receive HepA vaccine if desired. Minimum interval between doses: 6 months Adolescents 18 years and older may receive the combined HepA and HepB vaccine, as a 3-dose series (0, 1, and 6 months) or 4-dose series (0, 7, and 21–30 days, followed by a dose at 12 months).
HepB	**Birth**	3-dose series at 0, 1–2, 6–18 months (use monovalent HepB vaccine for doses administered before age 6 weeks) Infants who did not receive a birth dose should begin the series as soon as feasible Administration of **4 doses** is permitted when a combination vaccine containing HepB is used after the birth dose. **Minimum age** for the final (3rd or 4th) dose: 24 weeks **Minimum intervals:** dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 8 weeks / dose 1 to dose 3: 16 weeks	Unvaccinated persons should complete a 3-dose series at 0, 1–2, 6 months. Adolescents age 11–15 years may use an alternative 2-dose schedule with at least 4 months between doses Adolescents 18 years and older may receive a 2-dose series of HepB at least 4 weeks apart. Adolescents 18 years and older may receive the combined HepA and HepB vaccine, Twinrix, as a 3-dose series (0, 1, and 6 months) or 4-dose series (0, 7, and 21–30 days, followed by a dose at 12 months).
HPV	**9 years**	HPV vaccination routinely recommended for all adolescents **age 11–12** **Age 9 through 14 years at initial vaccination:** 2-dose series at 0, 6–12 months (minimum interval: 5 months; repeat dose if administered too soon) **--Age 15 years or older at initial vaccination:** 3-dose series at 0, 1–2 months, 6 months (minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 12 weeks / dose 1 to dose 3: 5 months; repeat dose if administered too soon)	
IPV	**6 weeks**	4-dose series at ages 2, 4, 6–18 months, 4–6 years; administer the final dose on or after the 4th birthday and at least 6 months after the previous dose.	In the first 6 months of life, use minimum ages and intervals only for travel to a polio-endemic region or during an outbreak. IPV is not routinely recommended for U.S. residents 18 years and older.

		4 or more doses of IPV can be administered before the 4th birthday when a combination vaccine containing IPV is used. However, a dose is still recommended after the 4th birthday and at least 6 months after the previous dose.	
IIV/ LAIV	**6 months [IIV], 2 years [LAIV], 18 years [RIV])**	1 dose any influenza vaccine appropriate for age and health status annually	
MMR	**12 months**	2-dose series at 12–15 months, 4–6 years Dose 2 may be administered as early as 4 weeks after dose 1.	Unvaccinated children and adolescents: 2 doses at least 4 weeks apart The maximum age for use of MMRV is 12 years.
MenACWY-D **MenACWY-CRM**	**2 months [Men-ACWY-CRM, 9 months [Men-ACWY-D,**	2-dose series: 11–12 years, 16 years	Age 13–15 years: 1 dose now and booster at age 16–18 years (minimum interval: 8 weeks) Age 16–18 years: 1 dose
PCV13	**6 weeks**	4-dose series at 2, 4, 6, 12–15 months	1 dose for healthy children age 24–59 months with any incomplete* PCV13 series
RV	**6 weeks**	Rotarix: 2-dose series at 2 and 4 months. RotaTeq: 3-dose series at 2, 4, and 6 months.	Do not start the series on or after age 15 weeks, 0 days. The maximum age for the final dose is 8 months, 0 days.
Tdap	**11 years for routine vaccination** **7 years for catch-up vaccination**	**Adolescents age 11–12 years**: 1 dose Tdap **Pregnancy: 1** dose Tdap during each pregnancy, preferably in early part of gestational weeks 27–36 Tdap may be administered regardless of the interval since the last tetanus- and diphtheria-toxoid containing vaccine.	**Adolescents age 13–18 years who have not received Tdap:** 1 dose Tdap, then Td booster every 10 years **Persons age 7–18 years not fully immunized with DTaP:** 1 dose Tdap as part of the catch-up series (preferably the first dose); if additional doses are needed, use Td. **Children age 7–10 years** who receive Tdap inadvertently or as part of the catch-up series should receive the routine Tdap dose at 11–12 years. **DTaP inadvertently given after the 7th birthday:** **--Child age 7–10 years:** DTaP may count as part of catch-up series. Routine Tdap dose at 11–12 should be administered. **--Adolescent age 11–18 years**: Count dose of DTaP as the adolescent Tdap booster.
VR	**12 months**	2-dose series: 12–15 months, 4–6 years Dose 2 may be administered as early as 3 months after dose 1 (a dose administered after a 4-week interval may be counted).	Ensure persons age 7–18 years without evidence of immunity have 2-dose series: **--Ages 7–12 years:** routine interval: 3 months (minimum interval: 4 weeks) **--Ages 13 years and older:** routine interval: 4–8 weeks (minimum interval: 4 weeks). --The maximum age for use of MMRV is 12 years.

Table 5: Catch-up immunization schedule for persons aged 4 months—18 years who start late or who are more than 1-month behind
The figure below provides catch-up schedules and minimum intervals between doses for children whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Use the section appropriate for the child's age. Always use this table in conjunction with Table 3 and the notes that follow. (21)

Children age 4 months through 6 years					
vaccine	**Minimum Age for Dose 1**	**Minimum Interval Between Doses**			
		Dose 1 to Dose 2	**Dose 2 to Dose 3**	**Dose 3 to Dose 4**	**Dose 4 to Dose 5**
HepB	**Birth**	**4 weeks**	**8 weeks and at least 16 weeks after first dose.** Minimum age for the final dose is 24 weeks.		
Rotavirus	**6 weeks** Maximum age for first dose is 14 weeks, 6 days	**4 weeks**	**4 weeks Maximum** age for final dose is 8 months, 0 days.		
DTaP	**6 weeks**	**4 weeks**	**4weeks**	**6 weeks**	**6 weeks**
Hib	**6 weeks**	**No further doses needed** if first dose was administered at age 15 months or older. **4 weeks** if first dose was administered before the 1st birthday. **8 weeks (as final dose)** if first dose was administered at age 12 through 14 months	**No further doses needed** if previous dose was administered at age 15 months or older. **4 weeks** if current age is younger than 12 months and first dose was administered at younger than age 7 months, and at least 1 previous dose was PRP-T (ActHib, Pentacel, Hiberix) or unknown. **8 weeks and age 12 through 59 months (as final dose)** if current age is younger than 12 months and first dose was administered at age 7 through 11 months; OR if current age is 12 through 59 months and first dose was administered before the 1st birthday, and second dose administered at younger than 15 months; OR if both doses were PRP-OMP (PedvaxHIB; Comvax) and were administered before the 1st birthday.	**8 weeks (as final dose) This** dose only necessary for children age 12 through 59 months who received 3 doses before the 1st birthday	
PCV13	**6 weeks**	**No further doses needed** for healthy children if first dose was administered at age 24 months or older. **4 weeks** if first dose administered before the 1st birthday. **8 weeks (as final dose for healthy children)**	**No further doses needed** for healthy children if previous dose administered at age 24 months or older. **4 weeks** if current age is younger than 12 months and previous dose given at <7 months old. **8 weeks (as final dose for healthy children)** if previous dose given between 7-11 months (wait until at least 12 months old);	**8 weeks (as final dose)** This dose only necessary for children age 12 through 59 months who received 3 doses before age 12 months	

		if first dose was administered at the 1st birthday or after.	**OR** **if current age is 12 months or older and at least 1 dose was iven before age 12 months.**	or for children at high risk who received 3 doses at any age.	
IPV	**6 weeks**	**4 weeks**	**4 weeks if current age is < 4 years.** **6 months (as final dose) if current age is 4 years or older.**	**6 months** (minimum age 4 years for final dose).	
MMR	**12 months**	**4 weeks**	**4 weeks if current age is < 4 years.**		
VAR	**12 months**	**3 months**	**6 months (as final dose) if current age is 4 years or older.**		
HepA	**12 months**	**6 months**	**No further doses needed** for healthy children if previous dose administered at age 24 months or older.		
Meningococcal	**2 months** MenACWYCRM **9 months** MenACWY-D	**8 weeks**	**See Notes**	**See Notes**	
Children and adolescents age 7 through 18 years					
Meningococcal	**NA**	**8 weeks**			
DT/ DTaP	**7 years**	**4 weeks**	4 weeks if first dose of DTaP/DT was administered before the 1st birthday. 6 months (as final dose) if first dose of DTaP/DT or Tdap/Td was administered at or after the 1st birthday.	**6 months** if first dose of DTaP/ DT was administered before the 1st birthday.	
HPV	**9 years**	**Routine dosing intervals are recommended.**			
HepA	**N/A**	**6 months**			
HepB	**N/A**	**4 weeks**	8 weeks and at least 16 weeks after first dose		
IPV	**N/A**	**4 weeks**	6 months A fourth dose is not necessary if the third dose was administered at age 4 years or older and at least 6 months after the previous dose.	A fourth dose of IPV is indicated if all previous doses were administered at <4 years or if the third dose was administered <6 months after the second dose.	
MMR	**N/A**	**4 weeks**			
VAR	**N/A**	**3 months if younger than age 13 years.** **4 weeks if age 13 years or older.**			

Chapter-V

Performance indicators

استمارة الإشراف والمتابعة لبرنامج الفحص الصحي الدوري

1.مؤشرات البنية والموارد
2.مؤشرات اجراءات وتقييم مخرجات الفحص الصحي الدوري للفئات العمرية المختلفة
يتم تعبئة الاستمارة شهريا بعد اعتماد تطبيق البرنامج بالمراكز الصحية على ان يتم حساب المؤشرات ومخرجات الفحص الصحي الدوري للفئات العمرية المختلفة كل 3 أشهر.

اولا: مؤشرات البنية والموارد

1.القوى العاملة

الفئة	العدد	التدريب	العدد	ملاحظات
طبيب		* مدرب على الدورات الاساسية للصحة العامة		
		مدرب على برنامج الفحص الصحي الدوري		
التمريض		* مدرب على الدورات الاساسية للصحة العامة		
		مدرب على برنامج الفحص الصحي الدوري		
مثقف صحي		* مدرب على الدورات الاساسية للصحة العامة		
		مدرب على برنامج الفحص الصحي الدوري		

* الرجوع الي الدورات الأساسية المعتمدة من الإدارة العامة لشئون المراكز

1.الموارد المادية والتجهيزات

توفر الاحتياجات الاساسية من السجلات و النماذج

ملاحظة: يتم تعبئتها من قبل الطبيب الفني بالمركز (مشرف المركز) شهريا متوفر (نعم) ، غير متوفر تماما او جزئي (لا)

م	توفر التالي	الشهور	1	2	3	4	5	6	7	8	9	10	11	12
1		خطة عمل												
2		أدلة العمل بالعيادة *												
3		التجهيزات الطبية وغير طبية في العيادة حسب الدليل *												
4		السجلات حسب الدليل**												
5		استمارات الفحص الدوري الصحي الشامل حسب الفئات العمرية حسب الدليل**												
6		النماذج الاحصائية اليومية والشهرية حسب الدليل**												
7		النشرات التوعوية المختلفة لجميع الفئات												
8		التطعيمات (فئة الاطفال) حسب الجداول المعتمدة*												
9		التطعيمات (فئة الكبار) حسب الجداول المعتمدة*												
10		الادوية حسب الادوية الاساسية للمراكز الصحية*												

*حسب دليل الادارة العامة لشئون المراكز والبرامج الصحية
** حسب دليل البرنامج

هل يتم تطبيق برنامج الفحص الصحي الدوري بالمركز نعم ( ) لا ( )

√ عدد مراجعي برنامج الفحص الصحي الدوري √ عدد السكان المسجلين بالمركز

- **تقييم برنامج الفحص الصحي الدوري (جميع أنشطة الفحص الصحي الدوري لجميع الفئات)**

اسم المؤشر	البسط	المقام	المصدر	مدلول المؤشر 100 %	التكرار
نسبة من قدم لهم المشورة والنصح من السكان	عدد من قدم لهم المشورة والنصح من السكان	عدد السكان المسجلين بالمركز	سجل الفحص الشامل	مدى الاستفادة من المشورة والنصح المقدم للسكان	3 أشهر
نسبة من تم فحصهم إكلينيكيا من السكان	عدد من تم فحصهم من السكان	عدد السكان المسجلين بالمركز	سجل الفحص الشامل	مدى الاستفادة من الفحص الإكلينيكي المقدم للسكان	3 أشهر
نسبة من تم إجراء فحوصات مخبريه لهم	عدد من تم إجراء فحوصات مخبريه لهم من السكان	عدد السكان المسجلين بالمركز	سجل الفحص الشامل	مدى الاستفادة من الفحص المخبري المقدم للسكان	3 أشهر
نسبة من تم تقديم أدوية وقائية لهم من السكان	عدد من تم تقديم أدوية وقائية لهم من السكان	عدد السكان المسجلين بالمركز	سجل الفحص الشامل	مدى الاستفادة من الأدوية الوقائية المقدمة للسكان	3 أشهر
نسبة من تم تطعيمهم من البالغين	عدد من تم تطعيمهم من البالغين	عدد السكان البالغين من المسجلين بالمركز*	سجل الفحص الشامل	مدى الاستفادة من التحصينات للبالغين من السكان	3 أشهر

***عدد البالغين من السكان %**

- تقييم برنامج الفحص الدوري الشامل (خلال 3 أشهر السابقة)

اسم المؤشر	البسط	المقام	المصدر	مدلول المؤشر 100 %	التكرار
نسبة من قدم لهم استشارة طبية من مراجعين الفحص الدوري	عدد من قدم لهم استشارة طبية من المراجعين	عدد مراجعي عيادة الفحص الدوري في نفس الفترة	سجل الفحص الشامل	مدى الاستفادة من المشورة و النصح من المراجعين	3 أشهر
نسبة من تم فحصهم إكلينيكيا من مراجعين الفحص الدوري	عدد من تم فحصهم من المراجعين	عدد مراجعي عيادة الفحص الدوري في نفس الفترة	سجل الفحص الشامل	مدى الاستفادة من الفحص الإكلينيكي من المراجعين	3 أشهر
نسبة من تم إجراء لهم فحوصات مخبريه من مراجعين الفحص الدوري	عدد من تم فحصهم من المراجعين	عدد مراجعي عيادة الفحص الدوري في نفس الفترة	سجل الفحص الشامل	مدى الاستفادة من الفحص المخبري من لمراجعين	3 أشهر
نسبة من تم تقديم العلاج الوقائي لهم من مراجعين الفحص الدوري	عدد من تم تقديم العلاج من المراجعين	عدد مراجعي عيادة الفحص الدوري في نفس الفترة	سجل الفحص الشامل	مدى الاستفادة من العلاجات من المراجعين	3 أشهر
نسبة من تم تطعيمهم من البالغين مراجعي الفحص الدوري	عدد البالغين الذين تم تقديم التحصينات من السكان	عدد مراجعي عيادة الفحص الدوري في نفس الفترة	سجل الفحص الشامل	مدى الاستفادة البالغين من التطعيم من المراجعين	3 أشهر
نسبة من تم تحويلهم من مراجعين الفحص الدوري	عدد من تحويلهم من المراجعين	عدد مراجعي عيادة الفحص الدوري في نفس الفترة	سجل المحولين سجل الفحص الشامل	مدى الاستفادة من خدمة الإحالة من المراجعين	3 أشهر

Summary of updates to the 2015 edition PHE guideline by section

SN	Under 6 years	6 - 17 years	18 - 59 years	Above 60 years
1	**Complementary Feeding.**.. low quality evidence (deleted)	**Vitamin D** no evidence suggest to use in both USPSTF & Canadian task force	**Aspirin 81 mg daily** Recommended initiating low-dose aspirin use for the primary prevention of cardiovascular disease (CVD) and colorectal cancer (CRC) in adults aged 50-59 years who have a 10% or greater 10-year CVD risk, are not at increased risk of bleeding, have a life expectancy of at least 10 years, and are willing to take low-dose aspirin daily for at least 10 years	**Colon Cancer** Screening methods: - FIT=fecal immunochemical test every year Newly added.
2	current evidence is insufficient to assess the balance of benefits and harms of screening for **iron deficiency** anemia in children ages 6 to 24 months. (I)			
3	Dental Health counselling shifted to screening (B) grade		**Colon Cancer** Screening methods: - FIT=fecal immunochemical test every year Newly added.	**Blood Pressure Recommendations:** Same as age group 18- 59
4	**Sun Exposure & Vit D** no evidence suggests to use in both USPSTF & Canadian task force		**Blood Pressure Recommendations:** - Annual screening for adults aged 40 years or older - Persons at increased risk include those who have high-normal blood pressure (130 to 139/85 to 89 mm Hg), - overweight or obese - African Americans. Adults aged 18 to 39 years with normal blood pressure (<130/85 mm Hg) who do not have other risk factors should be rescreened every 3 to 5 years. The USPSTF recommends rescreening with properly measured office blood pressure and, if blood pressure is elevated, confirming the diagnosis of hypertension with ABPM.	Men Ages 65 to 75 Years who Have Ever Smoked The USPSTF recommends one-time screening for abdominal aortic aneurysm (AAA) with ultrasonography in men ages 65 to 75 years who have ever smoked.
5	We recommend against screening for developmental delay using standardized tools in children aged one to four years with no apparent signs of developmental delay and whose parents and clinicians have no concerns about development (strong recommendation; low-quality evidence). This recommendation applies to children aged one to four years with no apparent signs of developmental delay and whose parents and clinicians have no concerns about development Canadian Task Force on Preventive Health Care 2016 NB PHE team agree are with strong recommendation;			
6	**Immunizations transferred to CDC**	**All recommendations and policies taken from CDC**		

السجل اليومي للفحص الدوري الشامل

Daily Periodic Health
Examination Record

السجل اليومي للفحص الدوري الشامل

اليوم : التاريخ :

التسلسل	الاســـم الرباعي Full Name	السجل الصحي HR	العمر Age	الجنس Sex		الجنسية Nationality		الفئات العمرية Age category				الإجراءات المتخذة Procedures Done			
				ذكر Male	أنثى Female	S	NS	ما دون 6 سنوات	من 6 - 17 سنة	من 18 - 60 سنة	من 60 سنة فما فوق	نصح وإرشاد	اكتشاف مبكر	ادوية وقائية	تحصينات

السجل السنوي للفحص الصحي الدوري

Annual Periodic Health Examination Record

الية التوثيق بالسجل السنوي للفحص الصحي الدوري:

يوجد في مقدمة السجل السنوي جداول خاصة بالرقم الكودي لكل خدمة من خدمات الفحص الصحي الدوري وتشمل:

التصنيف العام للخدمات:

1. المشورة (counseling) ويرمز لها بالكود C
2. الفحص الاكلينيكي (examination) ويرمز لها بالكود E
3. الفحوصات المخبرية والاشعاعية (LAB/ RAD) ويرمز لها بالكود L
4. الادوية (medication) ويرمز لها بالكود M
5. التحصينات (vaccination) ويرمز لها بالكود V

التصنيف الخاص بكل خدمة :

1. المشورة (counseling): وتتضمن من كود C 1 الى كود C 11
2. الفحص الاكلينيكي (examination): وتتضمن من كود E 1 الى كود E6
3. الفحوصات المخبرية والاشعاعية (LAB/ RAD): وتتضمن من كود L1 الى كود L18
4. الادوية (medication): وتتضمن من كود M1 الى كود M5
5. التحصينات (vaccination) : وتتضمن من كود V1 الى كود V14

ويقسم السجل السنوي الى 3 خانات عرضية لكتابة عدد 3 مراجعين مع المعلومات الخاصة بهم في الصفحة الاولى. اما الصفحة المقابلة فقسمت الى اعمدة تشمل الاجراءات المتخذة للمراجع حسب التصنيف العام للخدمات (المشورة، الاكتشاف المبكر, الادوية والتحصينات) بحيث تشمل العدد الاقصى للعناصر داخل تلك الخدمة, ويتم الكتابة حسب كود التصنيف الخاص بالخدمة المقدمة للمراجع وحسب التوصية لهذه الخدمة وفقا للفئة العمرية. ويغطي السجل السنوي خمس سنوات كعدد اقصى حسب مدة الاكتشاف المبكر لتلك الخدمة.

#	Counseling			
	Under 6	**6 - 17**	**18 - 60**	**Above 60**
1	Breast Feeding	Intimate Partner Violence and Abuse	Breast Feeding	Smoking Status & Cessation
2	Complementary Feeding	Smoking Status & Cessation	Intimate Partner Violence and Abuse	Diet
3	Passive Smoking	Sun Exposure & Vitamin D deficiency	Behavioral Counseling For STDs	Alcohol Abuse
4	Accident Prevention	Sexually Transmitted Infections (STIs)	Smoking Cessation	Fall Assessment and Physical Activities
5	Dental Health	Depression	Oral Hygiene	Depression[2]
6	Sun Exposure &Vit D	Oral Hygiene	Sun Exposure& Vit D deficiency	
7			Behavioral Counseling for Obesity	
8			Depression	
			Alcohol Abuse	

#	Counseling
C1	smoking
C2	Depression
C3	STD
C4	Oral
C5	Sun
C6	Alcohol
C7	Violence
C8	Breast Feeding
C9	Diet\ Complementary Feeding
C10	Accident Prevention\Fall Assessment
C11	Obesity

#	Counseling			
	Under 6	**6 - 17**	**18 - 60**	**Above 60**
1	Developmental Mile Stones	BMI Percentile	BMI & Waist Circumference	BMI
2	Growth Parameters	Mouth Examination	Blood Pressure Measurement	Blood Pressure Measurement
3	Posterior Fontanel		Mouth Examination	
4	Anterior Fontanel			
5	Vision:			
6	Hearing			
7	CVS			
8	Abdomen			
9	Hernia			
10	Genitalia/ Circumcision			
11	Lower Limbs			
12	Skin			

#	Counseling
E1	BMI & Waist Circumference
E2	Blood Pressure Measurement
E3	Mouth Examination
E4	Developmental Mile Stones
E5	Growth Parameters
E6	pediatric physical examination

#	LAB			
	Under 6	**6 - 17**	**18 - 60**	**Above 60**
1	ABO/RH (if not done)	HIV	Blood Sugar Testing	Blood Sugar Testing
2	CBC	Chlamydia	Fasting Lipid Profile	Fasting Lipid Profile
3	Sickling Test(If not done)		Pap Smear	Mammogram
4	G6PD Test (If not done)		Mammogram	Fecal Occult blood
5	PKU Test (If not done)		Chlamydial	Sigmoidoscopy
6	TFT for Congenital Hypothyroidism (If not done)		Gonorrhea	Colonoscopy
7			Syphilis	DEXA11
8			HIV	
9			Fecal Occult blood	
10			Sigmoidoscopy	
11			Colonoscopy	
12			DEXA11	

#	Medication			
	Under 6	**6 - 17**	**18 - 60**	**Above 60**
1	Iron Supplement	Folic Acid	Aspirin	Aspirin
2	Vitamin K	Floride	Folic Acid	Vitamin D3
3	Erythromycin Eye Drops			
4	Vitamin D3			

#	LAB
L1	Blood Sugar Testing
L2	Fasting Lipid Profile
L3	Mammogram
L4	Pap Smear
L5	Fecal Occult blood
L6	DEXA
L7	Sigmoidoscopy
L8	Colonoscopy
L9	Chlamydial
L10	Gonorrhea
L11	Syphilis
L12	HIV
L13	ABO/RH
L14	CBC
L15	Sickling Test
L16	G6PD Test
L17	PKU Test
L18	TFT

#	vaccination			
	Under 6	**6 - 17**	**18 - 60**	**Above 60**
1	According to KSA National EPI schedule table (1)	Influenza (Flu vaccine)	Influenza	Influenza
2	Catch Up Vaccination: Refer to table(4)	Tdap/Td	Tdap/Td	Td/Tdap
3	Influenza vaccine (flu) annually to be started at the age 6 years and above	Varicella (catch up)	Varicella	Varicella
4		MMR (catch up)	MMR (Catch up)	Zoster
5		Pneumococcal (PCV13)	Pneumococcal (PCV13)	Measles, mumps, rubella (MMR)
6		Pneumococcal (PPSV23)	Pneumococcal (PPSV23)	Pneumococcal (PCV13)
7		Meningococcal	Meningococcal	Pneumococcal (PPSV23)
8		IPV catch up or OPV	Hepatitis A	Meningococcal
9		Hepatitis A (catch up)	Hepatitis B	Hepatitis A
10		Hepatitis B (catch up)	Haemophilus Influenzae Type b (Hib)	Hepatitis B
11		Haemophilus Influenzae Type b (Hib)		

#	vaccination
V1	KSA National EPI schedule
V2	Catch Up Vaccination
V3	Influenza vaccine (flu) annually
V4	Tdap/Td
V5	Varicella (catch up)
V6	MMR (catch up)
V7	Pneumococcal (PCV13)
V8	Pneumococcal (PPSV23)
V9	Meningococcal
V10	IPV catch up or OPV
V11	Hepatitis A (catch up)
V12	
V13	Hepatitis B (catch up)
V14	Haemophilus Influenzae Type b (Hib)

السجل السنوي للفحص الصحي الدوري

الرقم التسلسل SN	الاســـم الرباعي Full Name	السجل الصحي HR	الجنس Sex		الجنسية Nationality		الفئات العمرية Age category			
			ذكر Male	أنثى Female	سعودي Saudi	غير سعودي Non-Saudi	ما دون 6 سنوات	من 7 - 18 سنة	من 18 - 59 سنة	من 60 سنة فما فوق
1	احمد علي	345-01	√		√				√	

Action taken / الاجراءات المتخذة																																							العمر
تطعيمات وادوية وقائية Immunization &chemoprophylaxis													الاكتشاف المبكر Screening																		النصح والارشاد Counselling &advice								
										V3	V4	V9													E1	E2	E3	L1	L2	L5			C6	C5	C4	C3	C2	C1	1436هـ 56سنه

الية التوثيق بالسجل اليومي للفحص الصحي الدوري:

1. كتابة اليوم والتاريخ بالسجل (في بداية اليوم)
2. كتابة رقم التسلسل والاسم الرباعي للمراجع
3. كتابة رقم الملف الصحي (رقم العائلة – رقم الكود الخاص بالفرد)
4. كتابة العمر بالسنة (بالنسبة للأطفال اقل من عام فيكتب بالأشهر)
5. وضع علامة في خانة الجنس (ذكر ام انثى)
6. وضع علامة في خانة الجنسية (سعودي ام غير سعودي)
7. كتابة الوظيفة او المهنة (في حالة عدم وجود وظيفة يكتب بدون)
8. وضع علامة في خانة التاريخ العائلي (وفي حالة اخرى يتم تحديدها)
9. وضع علامة في خانة الفئة العمرية حسب العمر
10. وضع علامة في خانة الاجراءات المتخذة (سواء كانت: -1 نصح او ارشاد, -2اكتشاف مبكر, -3 ادوية وقائية, -4 تحصينات, -5 احالة لعمل فحوصات او احالة لتقديم علاج)

Abbreviations:

PHE	Periodic Health Examination
PHC	Primary Health Care
PHCC	Primary Health Care Center
CPG	Clinical Practice guidelines
USPSTF	united states Preventive Services Task Force
CTFPHC	US Capital Letters Canadian Task Force on preventive health care
NICE	National Institute of Clinical guidelines Network
SIGN	Scottish Intercollegiate Guidelines Network
RACGP	The Royal Australian College of General Practitioners
AGREE	The Appraisal of Guidelines for Research and Evaluation
RDA	Recommended Daily Allowance
IEF	Iso-electric focusing
HPLC	High performance liquid chromatography
DEXA SCAN	Dual energy x-ray Absorbtiometry
NTD	Neural tube defects
CVR	Cardiovascular risk
STI	Sexually transmitted infections
EPI	Expanded program of immunization practices
ACIP	The advisory committee on immunization practices
Tdap/ Td	Tetanus, diphtheria,a cellular pertussis Vaccine
DTaP	Diphtheria ,tetanus,acellular pertussis Vaccine
MCV4	Meningococcal Conjugate Quadrivalent Vaccine
PCV13	Pnemococcal Conjugate Vaccine
PPSV23	Pnemococcal Polysaccharide Vaccine
IPV	Inactivated Poliovirus Vaccine
OPV	Oral poliovirus Vaccine
CDC	Center for Disease Control and Prevention

References

1. IOM (Institute of Medicine): Clinical Practice Guideline We Can Trust. Washington, DC: The National Academies Press; 2011.
2. Public Health Agency of Canada. Cardiovascular disease—economic burden of illness. Ottawa, ON: Public Health Agency of Canada; 2012. Available from: www.phacaspc.gc.ca/cd-mc/cvd-mcv/cvd_ebic-mcv_femc-eng.php.
3. Institute of Medicine (US) Roundtable on Evidence-Based Medicine; Yong PL, Saunders RS, Olsen L, editors. The healthcare imperative. Washington, DC: National Academies Press (US); 2010.
4. Cohen JT, Neumann PJ, Weinstein MC. Does preventive care save money? Health economics and the presidential candidates. N Engl J Med 2008;358(7):661-3.
5. Woolf SH, Grol R, Hutchinson A, Eccles M, Grimshaw J: Clinical guidelines: potential benefits, limitations and harms of clinical guidelines. BMJ 1999, 318(7182):527–530.
6. European Observatory on Health Systems and Policies: Clinical guidelines for chronic conditions in the European Union. Geneva: World Health Organisation; 2013.
7. Working Group on CPG Updates: Updating Clinical Practice Guidelines in the Spanish National Health System: Methodology Handbook. Madrid: National Plan for the National Health System of the Spanish Ministry for Health and Social Policy; Aragon Health Sciences Institute (I+CS); 2009.
8. National Institute for Health and Clinical Excellence: The guidelines manual. London: National Institute for Health and Clinical Excellence; 2012.
9. Shekelle P, Woolf S, Grimshaw JM, Schünemann HJ, Eccles MP: Developing
10. clinical practice guidelines: reviewing, reporting, and publishing guidelines; updating guidelines; and the emerging issues of enhancing guideline implement ability and accounting for comorbid conditions in guideline development. Implement Sci 2012, 7:62.
11. Martínez Garcia L, Arévalo-Rodríguez I, Solà I, Haynes RB, Vandvik PO, Alonso-Coello P, Updating Guidelines Working Group: Strategies for monitoring and updating clinical practice guidelines: a systematic review. Implement Sci 2012, 7(1):109.
12. http://www.uspreventiveservicestaskforce.org/recommendations.htm
13. http://canadiantaskforce.ca.
14. https://www.racgp.org.au
15. https://www.sign.ac.uk/assets/sign50_2015.pdf
16. The ADAPTE Collaboration (2009). The ADAPTE Process Resource Toolkit for Guideline Adaptation, Version 2.0 http://www.g-i-n.net.
17. The AGREE II Instrument http://www.agreetrust.org
18. Clinical practice guideline on the use of screening strategies for the detection of breast cancer April 2014. the Saudi center for Evidence Based health care. available at: http:// www.moh.gov.sa
19. American cancer society (cancer colon)
20. https://www.cdc.gov/vaccines/schedules/
21. Expanded Program of Immunization (National immunization Schedule).