**If blood pressure is found to be high-normal (SBP 130-139 and or DBP 85-89), patients should be followed annually.

**NOTE:**

**Discussion**

• If PSA <1.0ng/ml, biologically significant prostate cancer is very unlikely to develop over the next 7 years.

**Checklist updates since the most recent Preventive Care Checklist Form**

- Counseling
  - Sodium: Recommended intake per day: Age 19-50=1500mg, 51-70=1300mg, 71 and over=1200mg
  - Investigations:
    - COPD: Spirometry (age>40 current or ex-smokers if YES to 1 of 4 screening questions, OR after an episode of acute bronchitis in a smoker has resolved)
    - PSA counseling (men age 50 with at least 10 years of life expectancy, age 40 if +FHX or African descent, age 40-49 for all men may be benefit to get baseline and establish future prostate cancer risk)

- Immunizations: unchanged

**Explanation updates since the most recent Preventive Care Checklist Form Explanations**

**Hypertension screening: Blood Pressure(B)**

- Treatment of hypertension in adults lowers risk of stroke, cardiac events and death (A recommendation)
- Target blood pressure of 140/90 in most patients and 130/80 in patients with diabetes and chronic kidney disease
- **If blood pressure is found to be high-normal (SBP 130-139 and or DBP 85-89), patients should be followed annually.

**Hypertension Diagnostic Criteria to Begin Treatment:** unchanged from 2011 checklist

**Home BP monitoring devices:** buy one with this logo and one that says “Recommended by Hypertension Canada”

**COPD screening: Spirometry**

- When to do spirometry:
  - After an episode of acute bronchitis in a smoker has resolved: acute bronchitis in a smoker may represent the 1st clinical presentation of COPD

**Prostate Cancer Screening: PSA**

- NOTE: Canadian and American organizations do not recommend population-wide screening in asymptomatic men – rather endorse the importance of informed choice through a discussion
- Discussion
  - Screening includes both a DRE and a PSA
  - Benefits: ERSPC36 trial showed mortality decrease associated with PSA screening (PSA>3ng/ml and DRE)
  - Limits
    - Not always reliable – PSA and DRE – both have false-positive and false-negatives
    - Abnormal PSA results require further diagnostic testing, which can lead to medical complications / more invasive tests
    - Finding prostate cancer may prompt a series of medical interventions offering little benefit and potentially some harm (e.g., erectile dysfunction, incontinence)
  - What are the implications of a positive diagnosis?
    - Many men are with prostate cancer will remain healthy and may never be affected by it
      - 7 / 10 men diagnosed with prostate cancer will not die from it - they will die of other causes
    - Some prostate cancers grow slowly and are not life threatening; some prostate cancer can also be serious and fatal or can spread beyond the gland into the bones, causing bone pain and other symptoms
    - Detection and treatment of these cancers can adversely affect quality of life
    - Potentially curative treatments for localized prostate cancer are surgery and radiation, which can cause impotence, urinary incontinence and bowel problems
    - Alternative options: active surveillance
  - When to offer PSA + DRE
    - age 50 + at least 10 yrs of life expectancy: should be offered
    - age 40 if higher risk of prostate cancer – family history, patient is African descent
    - age 40-49 for all men: may be benefit to get baseline and establish future prostate cancer risk
  - Frequency: annually is standard, but 2 studies show q2-4 years screening was beneficial
  - PSA and PSA free/total ratio are most reliable serum markers, both represent a continuum of prostate cancer risk and no strict cut-off point should be used for all patients
  - PSA: age-specific cut-off proposed over previous level of 4ng/ml; a single PSA value not sufficient to decide biopsy
    - If PSA <1.0ng/ml, biologically significant prostate cancer is very unlikely to develop over the next 7 years
Age related “normal” PSA cut off points

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<tr>
<td>40 – 49</td>
<td>&lt;2.5</td>
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<td>50 – 59</td>
<td>&lt;3.5</td>
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<td>60 – 69</td>
<td>&lt;4.5</td>
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<tr>
<td>70 – 79</td>
<td>&lt;6.5</td>
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- Free/total ratio: LOWER the free : total ratio, the GREATER the risk of prostate ca → can increase specificity of PSA

- Other tests/measurements to improve sensitivity of PSA:
  - PSA density (PSAD) > 0.15ng/ml may indicate higher risk of prostate cancer; improve SPECIFICITY
  - Requires a transrectal U/S for measuring volume/density
  - PSA velocity (PSAV): to calculate, need at least 3 PSAs over a period of 18 months; improve SENSITIVITY of PSA
    - >0.75ng/ml/year if PSA is between 4-10 ng/ml may indicate higher risk of prostate cancer
    - >0.4ng/ml/year if PSA <4 ng/ml – indicate higher risk of prostate cancer
    - Age specific PSAV also exist: > 0.25 (age 40-59), 0.5 (60-69), 0.75 (>70 yr)

Diabetes mellitus screening (Fasting Plasma Glucose): Additional information that is helpful to know in addition to what’s available on the checklist explanations:

- Screening for patients at high-risk for vascular event:
  - High risk is defined as having a 20% or greater 10-year risk of cardiac death or nonfatal myocardial infarction
  - Although most people with diabetes are at high risk of a coronary event, there is a subset of people with diabetes that are not
  - 2013 CPGs fine-tune the assessment to better identify the high risk individual so that appropriate interventions can be undertaken

  In context of diabetes, if YES to any ONE of following, then patient is HIGH RISK for vascular event

  - Age > 40
  - Diabetes > 15 years AND is age > 30
  - Macrovascular disease? (≥ 1) - Cardiac ischemia (silent or overt), Peripheral arterial disease, Carotid disease, Cerebrovascular disease
  - Microvascular disease? (≥ 1)- Retinopathy, Nephropathy (ACR ≥ 2.0 in men, or ≥ 2.8 in women), Neuropathy
  - Warrants therapy based upon other risk factors identified from CCS lipid guidelines

- Screening for CAD in patients with DM:

  Any one of:
  - Age > 40
  - DM > 15 years
  - End organ damage (microvascular, macrovascular) Cardiac risk factors
  - Symptoms possibly due to CAD (including unexplained dyspnea)
  - Abnormal resting ECG (Q-waves, ST-T abnormalities)
  - Signs/Sx vascular disease: Peripheral arterial disease, Carotid bruit, TIA, Stroke
  - Ischemia at low exercise capacity on stress testing (< 5 METS)
  - Resting ECG
    - At diagnosis (baseline)
    - Every 2 years (if high risk)
  - Stress test
    - Exercise ECG as first line
    - Nuclear imaging or Pharmacologic stress Echocardiography if ECG abn preclude ECG stress testing or pt unable to exercise
  - Refer to Cardiac specialist

- Recommendations for vascular protection:

  For ALL patients with diabetes:
  - A1c ≤ 7%
  - BP < 130/80 mmHg
  - Smoking cessation
  - Physical activity (goal of ≥ 150 minutes of aerobic exercise per week)
  - Healthy body weight
  - Healthy diet

  For high risk patients, include:
  - ACE-inhibitor or ARB
  - Statin* - dose change or additional lipid therapy warranted if lipid targets (LDL ≤ 2.0 mmol/L AND total cholesterol / HDL ratio < 4) not being met
  - Anti-platelet agent** should be considered for secondary prevention; for primary prevention of cardiovascular events (with no other indication for its use), individual clinical judgment is required

Unchanged:
- Cardiovascular disease: Fasting Lipid Profile (total cholesterol, HDL-C, triglyceride and LDL-C)
- Colorectal Cancer Screening
- Screening for Sexually Transmitted Infections in High Risk Populations
- Osteoporosis Screening: BMD
- Immunizations

Debate surrounding period health examination (PHE): should it be abandoned?

- The history: the annual physical date back to 1861. In the 1970s and 1980s, both the Canadian Task Force on Preventive Health Care (CTFPHC) and the United States Preventive Services Task Force recommended abandoning the comprehensive systemic examination in favour of case-finding maneuvers during regular visits.
- Terminology: there is no difference between an annual physical and a PHE, except in the terminology. Patients and physicians still refer to it as an annual physical, and two-thirds of both physicians and patients still believe that it involves a head-to-toe examination and multiphasic testing.
<table>
<thead>
<tr>
<th>Arguments favoring abandoning the PHE:</th>
<th>Arguments against abandoning the PHE:</th>
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| o Costly and non-sustainable by the Canadian Medicare system  
  • 21.4 million appointments a year cost $2 billion in consultation costs alone, added to this testing, investigations, and recalls |
| o Time-consuming and if abandoned, can ↑ access  
  • If every patient in a practice of 2000 had a 20-minute annual health examination, it would occupy the physician full-time for 22 weeks of every year |
| o Non-evidence based and outdated  
  • no convincing evidence exists that a dedicated appointment for a PHE, in place of case-finding maneuvers during regular visits, leads to better health outcomes, or that those who undergo this annual ritual are healthier or have decreased morbidity and mortality compared with those who do not |
| o Building relationships and rapport is possible through the cumulative visits |
| o Preventive care is possible to at regular intervals and within the framework of acute visits, esp with the help of EMR |
| o Mehrotra et al\(^3\) found only 19.9% of 8 different preventive services occurred at PHES or preventive gynecologic examinations, and that preventive care, in particular counseling services, frequently occurred at visits for immediate care or chronic illness |
| o Builds relationships, allows a more holistic view of patients and give context to medical issues\(^4\) |
| o Allows for delivery of preventative care: a large systematic review of studies on the value of periodic health evaluation found that the PHE was consistently associated with an improved delivery of Papanicolaou tests, cholesterol screening, and fecal occult blood testing\(^5\) |
| o Are not worthless visits that are simply burdened with tests: physicians are often attending to chronic disease and multiple health issues during these appointments as well\(^6\) |
| o Are becoming more evidence-based: many physicians use the preventative care checklist of the CFPC, which is evidence-based\(^6\) |
| o Physician and patient preference should be taken into account  
  • Prochazka et al\(^7\): 94% of primary care physicians felt that annual physical examinations provided an opportunity to counsel patients on preventive health services and improve the doctor-patient relationship |
| o Obler et al\(^8\): 2/3 of patients responded that the annual physical examination was necessary in addition to regular primary care |

References can be found online at http://www.dfc.u.utoronto.ca/programs/postgraduateprograme/One_Pager_Project References.htm