Explanations for the Preventive Care Checklist Form

Education/Counselling

Lifestyle/Habits
Inform patients of reproductive age that:
- Women who delay child bearing are at increased risk of infertility
- There are obstetrical and perinatal risks with advanced maternal age
- Artificial reproductive therapy (ART) cannot guarantee a live birth or compensate for age related decline in fertility
Women aged 20-30 year range should be counselled about age related infertility when other reproductive health issues are addressed. They should be aware that natural and artificial reproductive success is significantly lower in their late 30's and 40's (with the exception of egg donation).

Behavioural
Folic acid (A):
- To prevent neural tube defects (NTD) in all women capable of becoming pregnant
- Low risk-women: Folic acid supplementation of 0.4 to 0.8 mg daily taken at least one month before and three months after conception
- High-risk women (previous pregnancy with NTD):
  Supplementation with 4 mg folic acid daily during 3 months before and 3 months after conception reduces recurrence.
Adverse nutritional habits (B):
- Prevention of coronary artery disease, colon cancer
- Provide general dietary advice: decrease fat, increase fiber
- Those at increased risk, consider referral to a clinical nutritionist or other professional with specialized nutritional expertise

Dietary advice on fat/cholesterol (B):
- Prevent coronary heart disease
- Decrease intake of total fat, saturated fat, and cholesterol
Calcium 1000-1500mg/day:
- Prevent osteoporosis
- The Osteoporosis Society of Canada (OSC) recommends adults have 1000 to 1500 mg of elemental calcium per day; 1200 mg if ≥50 yrs.
- If this amount cannot be provided by diet alone (usually three or more servings of dairy products), then calcium supplementation should be recommended.
- The Society of Obstetricians and Gynaecologists of Canada (SOGC) recommend postmenopausal women have 1500 mg of elemental calcium per day.

Vitamin D:
- Prevent osteoporosis and hip fractures
- OSC recommends 400-1000 IU (10-25 mcg) daily if low risk of vit D deficiency and 800-1000 IU (20-25 mcg) if ≥ 50 yrs and at moderate risk of vit D deficiency
- SOGC recommends 800 IU/day in postmenopausal women

From CTFPHC (B):
- Calcium and vitamin D supplementation alone prevents osteoporotic fractures in postmenopausal women without documented osteoporosis.

Moderate physical activity (B):
- Prevention of cardiovascular disease and hypertension.
- Physical activity can also contribute to the prevention of obesity, Type II diabetes mellitus and osteoporosis.
- Recommend moderate-level physical activity performed consistently to accumulate 30 minutes or more over the course of most days of the week.
- Moderate intensity physical activities include: normal walking, golfing on foot, slow biking, raking leaves, cleaning windows, slow dancing, light restaurant work.
- Note: Doing moderate physical activity is a B recommendation but physician counselling is a C.

Avoid sun exposure, use protective clothing (B):
- Prevent skin cancer
- Evidence from epidemiologic studies focusing on etiology of melanoma, prudence and low cost/side-effects, supports the avoidance of excessive sun exposure at mid-day, plus the use of protective clothing.
- Sunscreen use is a C recommendation for general population.

Safe sex practices/Sexually Transmitted Infections counselling (esp. Gonorrhea counselling) (B):
- Prevent transmission of sexually transmitted infections.
- Abstinence is most effective, fair evidence to use condoms.
- Obesity (BMI ≥ 30).
- The Obesity Network recommends screening for depression, eating disorders and psychiatric disorders in obese patients.
- Behaviour modification techniques, cognitive behavioural therapy, activity enhancement and dietary counselling are effective in the management of obesity.
- Reduce calorie intake by 500-1000 kcal/day.
- Initiate 30 min of moderate intensity exercise 3-5x/week, increase to ≥ 60 min on most days with endurance training.
- Target weight loss of 5%-10% of body weight or 0.5-1 kg/wk for 6 months.

From CTFPHC: For adults who are overweight or obese (BMI 25-39) offer structural behavioural interventions aimed at weight loss. These interventions should focus on diet, exercise and/or lifestyle changes (including counselling, education/support and/or environmental changes.

Smoking Counselling
- To Prevent Tobacco-Caused Disease
- Smoking cessation (A): counselling effective to reduce the proportion of smokers.
- Nicotine replacement therapy (A): may be offered as an adjunct to smoking cessation; it increases cessation rates.
- Bupropion may be added as an adjunct to smoking cessation; it increases cessation rates. No recommendation yet for newer medications.
- Fruit and Green leafy vegetables for smokers: eat an average of seven portions of green leafy vegetables or fruit per week to lower risk of lung cancer.
- Referral to validated smoking cessation program: Referral by physician improves participation in group programs.

Alcohol Counselling
- Prevent Alcohol related Morbidities
- Case finding for problem drinking (B): Standardized questionnaires (e.g. CAGE, AUDIT) and/or patient inquiry.
- Counselling for problem drinking (B): Clarify association between alcohol consumption and alcohol-related consequences; advice to reduce consumption.

Elderly
- Cognitive assessment (A and B):
  - When caregivers or informants describe cognitive decline in an individual, these observations should be taken very seriously; cognitive assessment and careful follow-up are indicated (A).
  - Memory complaints by patient or caregiver should be evaluated and the individual followed to assess progression (B).
- Fall assessment:
  - Good evidence to perform multidisciplinary post-fall assessment on elderly patients who have a history of falls or to refer elderly patients to multidisciplinary post-fall assessment teams, where such a service is available (A).
  - There is insufficient evidence to support including assessment and counselling of elderly patients for the risk of falling in the routine health exam of the elderly.
Oral Hygiene  • To prevent periodontal disease, and oral cancer
  • **Brushing/flossing teeth (A, B):** Flossing teeth is effective to prevent gingivitis in adults. Brushing teeth is essential in the application of fluoride dentifrice to prevent dental caries (A) and prevention of gingivitis (B).
  • **Fluoride (toothpaste/supplement) (A):** Daily use of fluoride toothpaste gives significant reductions in decay and/or daily fluoride supplements (only where water fluoride levels are less than optimal).
  • **Tooth scaling and prophylaxis (B):** In periodontally healthy patients, intensive professional oral hygiene and prophylaxis prevents chronic gingivitis and periodontitis. Annual scaling provides no additional benefit for those who maintain good oral hygiene.
  • Smoking cessation (A, B): To reduce the risk of oral cancer. Intervention programs have reduced the incidence of precancerous lesions. Also prevents periodontal disease due to smoking (B).

Personal Safety  • **Seat belts (B):** Prevent injury from Motor Vehicle Collisions. Physicians can influence significant short-term improvement in seat belt use.
  • **Noise control programs/hearing protection (A):** Good evidence to support noise control programs and hearing protection but no comment made on impact of physician counselling.

Parents with children < 15 years of age  • **Poison control prevention (B):** Counselling on prevention of poisoning and poison control centre phone number stickers to the parents of young children.
  • **Smoke detectors, non-flammable sleepwear and hot water thermostat settings (B):** Counselling can increase the number of safety features in the home but impact on injury is unknown.

Physical Examination

**Blood Pressure**
From CTFPHC: For those without a previous diagnosis of hypertension, measure blood pressure (BP) to screen for hypertension. Measure BP at all appropriate visits. BP should be measured according to the current techniques described in the Canadian Hypertension Education Program (CHEP) recommendations.

From CHEP: Target BP of < 140/90 in most patients, < 130/80 in diabetics and a systolic BP < 150 in those > 80 years of age with isolated systolic hypertension.

**Visit** | **Diagnosis of hypertension if:** | **Alternative diagnosis:**
--- | --- | ---
1 | **Urgency/emergency:**
• Asymptomatic DBP ≥ 130
• Hypertensive encephalopathy
• Acute aortic dissection
• Acute left ventricular failure
• Acute coronary syndrome, Acute kidney injury, Intracranial hemorrhage, Acute ischemic stoke, Eclampsia of pregnancy
Ambulatory BP Monitoring: mean awake ≥ 135/85 or mean 24hr SBP ≥130/80 Home BP: avg. ≥135/85
2 | Target end-organ damage, DM, CKD or BP ≥180/110
3 | ≥160/100
4-5 | ≥140/90

Should be measured at all appropriate primary care visits.

Waist to Hip Ratio (WHR): WHR >1.0 for men and >0.85 for women is considered a marker for abdominal obesity.

Waist circumference (WC):
• A WC above 102 cm (40 in) for men and 88 cm (35 in) for women is associated with increased risk of type 2 diabetes, coronary heart disease and hypertension.
• The WC should be used in those with a BMI between 18.5 and 34.9 to identify additional risk.

**Screening for hearing impairment in elderly (B):**
• All of the following have high sensitivity to detect hearing loss
  - Audioscope
  - Inquiry: Ask the patient about any hearing difficulty

**Snellen test (B):**
• In elderly, reliably detects reduced visual acuity.

**Pap(B):**
Among women who have no symptoms of cervical cancer and who have ever been sexually active, screen for cervical cancer with Pap tests. Recommendations do not apply to women with symptoms of cervical cancer, previous abnormal results on screening (unless cleared to return to normal screening), those without a cervix, immunosuppressed, or limited life expectancy.

**For women aged 25-29 years, screen every 3 years**
**For women aged 30-69 years, screen every 3 years**
**For women aged 70 years and older who have undergone adequate screening (3 successive negative Pap test results in the last 10 years), stop screening. Continue to screen until 3 negative tests are obtained**
## Investigations/Labs

**Screening for Breast Cancer:**
Screen for breast cancer with mammography. Average risk individuals include those without a personal history of breast cancer, no history of breast cancer in a first degree relative, no BRCA 1/2 mutation, and no history of chest wall radiation
*For women aged 50-74 years, screen every 2-3 years*

**Screening for Colorectal Cancer:**
Colorectal cancer screening of patients ≥50 years:
*From CAG: For those at average risk of colorectal cancer (no additional personal or familial risk factors), programmatic screening for colorectal cancer aged 50-75 years, and individual opportunistic screening to be considered up to age 85 years*
Fecal immunochemical testing (FIT) or high sensitivity g-FOBT for programmatic screening every 1-2 years
Flexible sigmoidoscopy for programmatic screening every 10 years
FIT/FOBT, flexible sigmoidoscopy and colonoscopy are appropriate for individual opportunistic screening
- Hemoccult multiphase every 1-2 years (A)
- Flexible sigmoidoscopy (B) (frequency not established)

**Screening for sexually transmitted infections in high risk populations:**
- Sexually active youth <25 years old
- Sexual contacts of individuals known to/suspected to have an STI
- Sex workers and their sexual partners
- Individuals with new sexual partners or > 2 sexual partners in the past year
- Serially monogamous individuals who have had a series of one partner relationships over time
- Individuals not using contraception or using only non-barrier methods of contraception, those using injection drugs
- Substance use especially in association with sex, individuals engaging in unsafe sexual practices
- Individuals who require “survival sex”
- Homeless populations or those with street involvement
- Individuals engaging in anonymous sexual partnering
- Victims of sexual assault/abuse
- Those who have had previous STIs

**Syphilis (A): Serology testing**

**Gonorrhea (A):** If asymptomatic, use nucleic acid amplification testing (NAAT) for cervical or urine testing in women and for urine testing in men
- If symptomatic, both culture and NAAT testing should be done
- Culture is the only method for oropharyngeal and rectal testing

**Chlamydia (B):** Screen with culture or polymerase chain reaction. Urine testing available.

**Hepatitis B virus (HBV): Screen with hepatitis B surface antigen (HBsAg) in blood.**

**Screening for HIV infection in the following:**
- Individuals requesting an HIV test
- Individuals with symptoms and signs of HIV infection
- Individuals with illnesses associated with a weakened immune system or a diagnosis of tuberculosis
- Unprotected anal or vaginal intercourse or use of shared drug equipment with a partner whose HIV status is known to be positive
- Pregnant or planning a pregnancy; and their partners as appropriate
- Victims of sexual assault

**Bone Mineral Density:** Screen for osteoporosis
*From CTFPHC (B):*
To prevent fragility fractures: Screen postmenopausal women by DEXA if over 65 years of age or have a history of previous fracture, or have a have an Osteoporosis Risk Assessment Instrument score ≥9 or have a SCORE score ≥6.
*From Osteoporosis Society of Canada:*
Indications for measuring bone mineral density

<table>
<thead>
<tr>
<th>Older Adults (age ≥ 50 yr)</th>
<th>Younger adults (age &lt;50 yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age ≥ 65 yr (both women and men)</td>
<td>Fragility fracture</td>
</tr>
<tr>
<td>Clinical risk factors for fracture (menopausal women, men age 50-64 yr)</td>
<td>Prolonged use of glucocorticoids*</td>
</tr>
<tr>
<td>Fragility fracture after age 40 yr</td>
<td>Use of other high-risk medications†</td>
</tr>
<tr>
<td>Prolonged use of glucocorticoids*</td>
<td>Hypogonadism or premature menopause (age&lt;45 yr)</td>
</tr>
<tr>
<td>Use of other high-risk medications†</td>
<td>Malabsorption syndrome</td>
</tr>
<tr>
<td>Parental hip fracture</td>
<td>Primary hyperparathyroidism</td>
</tr>
<tr>
<td>Vertebral fracture or osteopenia identified on radiography</td>
<td>Other disorders strongly associated with rapid bone loss and/or fracture</td>
</tr>
<tr>
<td>Current smoking</td>
<td>*At least three months cumulative therapy in the previous year at a prednisone-equivalent dose ≥ 7.5 mg daily.†For example, aromatase inhibitors or androgen deprivation therapy.</td>
</tr>
<tr>
<td>High alcohol intake</td>
<td></td>
</tr>
<tr>
<td>Low body weight (&lt; 60 kg) or major weight loss (&gt; 10% of body weight at age 25 yr)</td>
<td></td>
</tr>
<tr>
<td>Rheumatoid arthritis</td>
<td></td>
</tr>
<tr>
<td>Other disorders strongly associated with osteoporosis</td>
<td></td>
</tr>
</tbody>
</table>

**Screening for Diabetes:**
CDA: All patients should be evaluated annually for type 2 diabetes risk
Screen for type 2 diabetes (T2DM) with a fasting plasma glucose (FPG) and/or A1C every 3 years after 40 years of age (or earlier if at high risk using a risk calculator)
A 75 g oral glucose tolerance test (OGTT) may be indicated if the FPG is 6.1-6.9 or the A1C is 6-6.4 in order to identify those with impaired glucose tolerance (IGT) or DM
A 75 g OGTT may be indicated if the FPG is 5.6-6 or the A1C is 6-6.4 in order to identify those with IGT or DM
More frequent and/or earlier screening with A1C and/or FPG or 2 hour plasma glucose in a 75 g OGTT should be considered in those who are at very high risk using a risk calculator or have additional risk factors for DM including: First degree relative with T2DM, gestational DM, Aboriginal/African/Asian/South Asian, medications (atypical antipsychotics, HAART, glucocorticoids etc.), associated conditions (PCOS, anacanthosis nigricans, obstructive sleep apnea, psychiatric disorders, HIV), delivered a macrosomic infant, impaired fasting glucose (IFG)/IGT/A1C 6-6.4, end-organ damage (micro or macrovascular complications), vascular risk factors (HDL <1 in men or <1.3 in women, TG >1.7, hypertension, overweight, abdominal obesity), other secondary causes A1C ≥6.5%, FPG ≥7 mmol/L or 2 hour plasma glucose in a 75 g OGTT ≥11.1 mmol/L is diagnostic for diabetes**

----

Please note:

- **Bold** = Grade A, or strong evidence (from the Canadian Task Force on Preventive Health Care)
- **Italics** = Grade B, or weak evidence (from the Canadian Task Force on Preventive Health Care)
- **Plain text** = Guidelines (from other Canadian sources)

(See reverse for references, insert for explanations)

©PH1501GB319
From CTFPHC: For adults at high risk of DM (determined with a validated risk calculator), screen every 3-5 years with A1C
For adults at very high risk of DM (determined with a validated risk calculator), screen annually with A1C
Recommend risk calculation every 3-5 years
A1C is the preferred test, but FPG or OGTT are acceptable alternatives
Validated risk calculators include the FINDRISC (the Finnish Diabetes Risk Score) or CANRISK (the Canadian Diabetes Risk Assessment Questionnaire):
Link to FINRISK: Canadiantaskforce.ca/perch/resources/d-patient-findrisk.pdf
Link to CANRISK: Canadiantaskforce.ca/perch/resources/canrisk-eng.pdf
Screen for Dyslipidemia:
Fasting lipid profile (LDL, HDL, TG, non-HDL) for men age ≥40 years and women aged ≥50 years or postmenopausal. Optional screening with Apo-B or urine ACR (if eGFR <60, hypertension, DM). Consider earlier screening in ethnic groups at increased risk (South Asians or First Nations). Screen all individuals with the following conditions regardless of age: smoker, diabetes, hypertension, family history of premature cardiovascular disease or hyperlipidemia, erectile dysfunction, chronic kidney disease, inflammatory disease (rheumatoid arthritis, systemic lupus erythematosus, psoriatic arthritis, ankylosing spondylitis, inflammatory bowel disease) HIV, COPD, clinical evidence of atherosclerosis or abdominal aneurysm, clinical manifestations of hyperlipidemia or BMI>27
Screening and Framingham risk assessment should be completed every 3-5 years (if 10 year risk <5%) or yearly (if 10 year risk ≥ 5%) for men age 40-75 years and for women age 50-75 years. Double the percent risk when there is a positive family history of premature cardiovascular disease (first degree relative <55 years if male and <65 years if female)
Complete a risk assessment whenever a patient’s expected risk status changes
Younger individuals with at least 1 risk factor for premature cardiovascular disease might also benefit from a risk assessment to motivate them to improve their lifestyle
Calculate and discuss a patient’s “Cardiovascular Age” to improve likelihood that patients will reach targets: http://cvage.ca/index.en.html

<table>
<thead>
<tr>
<th>Level of Risk</th>
<th>Consider Treatment if:</th>
<th>Treatment Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (10 year risk ≥20% or clinical atherosclerosis, AAA, diabetes &gt; 15 years duration and age &gt; 30 years, diabetes with age &gt; 40 years or presence of microvascular disease, high risk kidney disease*, high risk hypertension**)</td>
<td>Consider treatment in all patients</td>
<td>LDL-C ≤2 mmol/L or ≥50% reduction in LDL-C</td>
</tr>
<tr>
<td>Intermediate (10 year risk 10 to &lt;20%)</td>
<td>LDL-C ≥3.5 mmol/L or ApoB ≥1.2 g/L or non-HDL-C ≥4.3 mmol/L</td>
<td>LDL-C ≤2 mmol/L or ≥50% reduction in LDL-C</td>
</tr>
<tr>
<td>Low (10 year risk &lt;10%)</td>
<td>LDL-C ≥ 5 mmol/L or evidence of genetic dyslipidemia</td>
<td>≥ 50% reduction in LDL-C</td>
</tr>
</tbody>
</table>

*eGFR ≤45 mL/min, ACR ≥30 mg/mmol or eGFR ≤60 mL/min + ACR ≥3 mg/mmol
**Hypertension + 3 of: male, age >55 years, smoking, total cholesterol/HDL-C ratio >6, left ventricular hypertrophy, family history of premature cardiovascular disease, ECG abnormalities, microalbuminuria

Consider secondary testing in intermediate risk patients not candidates for treatment based on conventional risk factors or if treatment decisions are uncertain
Consider secondary testing in a subset of low risk patients (10 year risk 5-9%) for whom further risk assessment is indicated (premature family history of CAD, abdominal obesity, South Asian descent or IGT)
NB. These tests are considered optional and could include A1C, urine ACR, hs-CRP, ABI (if suspect peripheral vascular disease), exercise stress test
## Immunizations

### Tetanus (A):
- Routine booster doses every 10 years if had primary series
- Adults without a primary series need three doses.
- Primary adult series are given at time 0, 1-2 months, and 6-12 months.

### Polio:
Give a primary series for previously unimmunized adults when a primary series of tetanus and diphtheria toxoid-containing vaccine is being given or with routine tetanus and diphtheria-toxoid containing vaccine booster doses

### Pneumococcal vaccine (A):
To all persons ≥65 years, 1 dose

### Influenza Vaccine (A):
- Annually immunize the following:
  - People at high risk of influenza-related complications or hospitalization
  - Adults (including pregnant women) and children with the following chronic health conditions:
    - Cardiac or pulmonary disorders (including bronchopulmonary dysplasia, cystic fibrosis and asthma)
    - Diabetes mellitus and other metabolic diseases
    - Cancer, immune compromising conditions (due to underlying disease and/or therapy)
    - Renal disease
    - Anemia or hemoglobinopathy
    - Conditions that compromise the management of respiratory secretions and are associated with an increased risk of aspiration
    - Morbid obesity (BMI≥40)
    - Children and adolescents with conditions treated for long periods with acetylsalicylic acid
    - People of any age who are residents of nursing homes and other chronic care facilities
    - People ≥65 years of age
    - All children 6 to 59 months of age
    - Healthy pregnant women
    - Aboriginal Peoples

### Rubella:
- Give 1 dose to all susceptible adults. If vaccination is indicated, pregnant women should be immunized after delivery

### Measles & Mumps:
- Give 1 dose to susceptible adults born in or after 1970. If born before 1970 consider them to be immune, unless high risk (eg. health care provider)

### Varicella:
- Susceptible adults should receive 2 doses. Routine testing is not advised

### Human Papillomavirus:
- Women: up to age 45 years
- Men: up to age 26 years; men who have sex with men

### Pertussis:
- Single dose of acellular pertussis vaccine to all adults who have not received a dose in the past
- Adults who will be in close contact to young infants should be immunized as soon as possible

### Meningococcal vaccine:
- Adults up to and including 24 years of age if not immunized in adolescence should receive 1 dose

### Herpes zoster vaccine:
- Give 1 dose to those 60 years of age and older. For those 50-59 years of age, a dose can be considered
References

Unless otherwise stated, recommendations come from The Canadian Task Force on Preventive Health Care: The Canadian Guide to Clinical Preventive Health Care. Ottawa: Minister of Supply and Services Canada and www.canadiantaskforce.ca/


