Is there value in the “Annual Exam”, or should we be doing something else?

Michelle Greiver, MD CCFP
North York Family Health Team, NYGH
Department of Family and Community Medicine, University of Toronto
OCFP ASA, November 26 2011
Conflict of interest declaration

• I am a practicing family physician
• I am part of a FHO and a FHT, the North York Family Health Team
• I do annual check ups
Agenda: Preventive health exam

• What is recommended
• What we are currently doing
• How to consider different ways of doing it
Why screen patients

• A person who has an intervention (examination, test, procedure) is likely to be better off than a person who does not have the intervention

• Benefits outweigh harms
Consider:

- Patient preferences
- Context
- Clinician judgment

- “Evidence-Informed” medicine
Recommendations

• US Preventive Services Task Force
  – A, B: Net benefit is present; **offer or provide service**
  – C: “Inconclusive”. **Do not routinely provide** service
  – D: lack of benefit or evidence of harm; **discourage use of service**
  – I: “Insufficient evidence”; **patients should understand uncertainty**
Potential issues

• False positives
  – Conditions that are less common have more false positives
  – CA-125 for ovarian cancer
    • Low prevalence (17/100,000 women)
    • >98% of +ve tests are false positives.
    • Grade D recommendation

• False negatives
  – Patient falsely reassured
  – Normal mammogram, patient has breast cancer
• Length bias
  – **Faster growing** tumours are **less likely** to be detected by screening
  – Slower growing tumours have better survival

• Lead time bias
  – **Screen** and detect problem age 65; patient dies age 80
  – **Do not screen**, diagnose problem age 75; patient dies age 80
  – They spent 10 more years being sick (deterioration in quality of life), **with no improvement in length of life**
Number of Diagnoses of All Prostate Cancers (Panel A) and Number of Prostate-Cancer Deaths (Panel B)
Prostate cancer screening

- The U.S. Preventive Services Task Force (USPSTF) recommends **against** prostate-specific antigen (PSA)-based screening for prostate cancer
  - 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.
The “Annual check up”

• A mainstay of primary care
• Preventive services and screening tests are more likely to be done as part of CPX
  – Pap smears
  – Cholesterol

• Patients may expect a “full check up”
The “Annual check up”

• We are not sure that an “annual check-up” is necessary or makes a difference
  • Laine C. The annual physical exam examination: needless ritual or necessary routine? Annals of Internal Medicine 2002

  ◦ Focus on those who **benefit**
  ◦ Only for **important** conditions
  ◦ Only if test is **accurate**
  ◦ Only if there are **effective** treatments
Time

• Full check up takes more time than a “routine” visit

• We would need 7.4 hours per working day to do all the recommended services
  • Yarnall et al, Am J Public Health 2003

• Is an “Annual Check up” for everyone the best use of our time?
Figure 1. Ten primary care research networks: 8 provinces and 9 electronic medical records.

- **British Columbia**
  - Vancouver — Wolf Medical Systems

- **Alberta**
  - SaPCReN Calgary — Med Access
  - AFPRN Edmonton — Med Access, Wolf Medical Systems

- **Manitoba**
  - McPCReN Manitoba — JonokeMed

- **Ontario**
  - DELPHI London — Healthscreen, Purkinje
  - NorTRen Toronto — Nightingale, xwave
  - CSPC Kingston — OSCAR, xwave

- **Quebec**
  - Q-net Montreal — Da Vinci

- **Nova Scotia and New Brunswick**
  - MARNet Halifax — Nightingale, Purkinje

- **Newfoundland**
  - APBRN St John’s — Wolf Medical Systems

---

### Top 15 Diagnosis From Patient Encounters

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Patients</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANNUAL HEALTH EXAMINATION ADOLESCENT/ADULT</td>
<td>9898</td>
<td>23%</td>
</tr>
<tr>
<td>ESSENTIAL, BENIGN HYPERTENSION</td>
<td>3077</td>
<td>7%</td>
</tr>
<tr>
<td>OTHER ILL-DEFINED CONDITIONS</td>
<td>3030</td>
<td>7%</td>
</tr>
<tr>
<td>SIGNS/SYMPTOMS NYD - MUSCULOSKELETAL SYSTEM - LEG CRAMPS</td>
<td>1166</td>
<td>3%</td>
</tr>
<tr>
<td>COMMON COLD, ACUTE NASOPHARYNGITIS</td>
<td>1104</td>
<td>3%</td>
</tr>
<tr>
<td>DIABETES MELLITUS, INCLUDING COMPLICATIONS</td>
<td>1007</td>
<td>2%</td>
</tr>
<tr>
<td>DISORDERS OF MENSTRUATION</td>
<td>1003</td>
<td>2%</td>
</tr>
<tr>
<td>COMMON COLD ACUTE NASOPHARYNGITIS</td>
<td>965</td>
<td>2%</td>
</tr>
<tr>
<td>IMMUNIZATION-ALL TYPES</td>
<td>944</td>
<td>2%</td>
</tr>
<tr>
<td>WELL BABY CARE</td>
<td>929</td>
<td>2%</td>
</tr>
<tr>
<td>OSTEOARTHRITIS</td>
<td>898</td>
<td>2%</td>
</tr>
<tr>
<td>ACUTE BRONCHITIS</td>
<td>890</td>
<td>2%</td>
</tr>
<tr>
<td>SIGNS/SYMPTOMS NYD - DIGESTIVE SYSTEM - ANOREXIA, NAUSEA</td>
<td>848</td>
<td>2%</td>
</tr>
<tr>
<td>CYSTITIS</td>
<td>838</td>
<td>2%</td>
</tr>
<tr>
<td>FAMILY PLANNING, CONTRACEPTIVE ADVICE, STERILIZATION OR ABORT ADVICE</td>
<td>753</td>
<td>2%</td>
</tr>
</tbody>
</table>
Anatomy of a Full check up: the history

- Review CPP
  - Useful
  - Does not always have to be done “yearly”
- Review medications
  - Useful
  - Could be done with prescriptions
- Review risk factors: alcohol, smoking, diet, exercise
  - Useful
  - Good evidence for smoking, alcohol
  - Could be done with any visit
• Review family history
  – Useful
  – Remind patients to let you know if there are changes

• Review of systems
  – No evidence that this is of any value
  – “screening” for problems

• Vitals: BP, Ht, Wt, BMI, Waist circumference
  – Useful
  – BP every 2 years if <120/80 (JNC7)
Physical exam

• Breast exam
  – Insufficient evidence for Clinical Breast Exam

• Rectal exam
  – Not a recommended exam for Colorectal cancer screening; use FOBT (bonuses for FOBT every 2 yrs, patients age 50 to 74)

• Bimanual exam
  – No evidence for bimanual examination
    • US Preventive Services Task Force
What do we do as part of a Check-up?

• Hutchison sent 4 standardized patients to practices for an annual check-up:
  – 48 year old man
  – 70 year old man
  – 28 year old woman
  – 52 year old woman

  Hutchinson, CMAJ 1998;158:185-93
• 41% of A or B ("do") manoeuvres were done
• 17% of D or E ("don’t do") manoeuvres were done
• Physicians who did a lot of A and B manoeuvres also did a lot of D and E manoeuvres

• “Selectively offering A and B manoeuvres to the exclusion of D and E manoeuvres was rare”
Lab tests: we all order different things!

• A case of four different family physicians with a cpx panel for women age 50 or more

• Tests in green are **recommended** for periodic screening
• Tests in red are **not recommended** for periodic screening

• "yes" means the physician routinely orders the test

• Highlighted in **green** = concordant test (recommended and done; not recommended and not done)
• Highlighted in **red** = discordant test

• Score on bottom = % of tests concordant with screening recommendations

<table>
<thead>
<tr>
<th>Tests</th>
<th>Dr A</th>
<th>Dr B</th>
<th>Dr C</th>
<th>Dr D</th>
</tr>
</thead>
<tbody>
<tr>
<td>FBG</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Lipids</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>TSH</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Creatinine</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Uric Acid</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Lytes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>LFTs</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>CBC</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>ECG</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Total panel tests done**
- 10
- 5
- 6
- 5

**% concordant**
- 20%
- 70%
- 60%
- 70%
Funding

• Fee for Service A003: $77.20

• **More than 50%** of Ontario physicians in comprehensive family medicine are now in FHN/FHO blended payment model

• FHN/FHO: $11.58 (15% of FFS)
Evidence

• Instead of an annual “one size fits all” check-up, we could:
  – Tailor screening to fit individual patients
  – Do more “opportunistic screening” — talk about prevention and screening when patients come to see us for an acute problem

• Canadian Health Services Research Foundation, 2006
How to do it

• Prevention and screening do not always need a CPX!
• The check up does not need to be Annual
• Some things can be done without a visit:
  – Patient reminders (letters/phone calls)
    – Stone, Ann Intern Med 2002;136:I1
  – Ontario Breast Screening Program
  – FOBT reminders from Cancer Care Ontario
Alerts and reminders during routine visits

• EMR:
  – Alert for all current smokers
    • A patient asked me if I was all right when I forgot to ask if he was thinking of quitting
  – Alert for overdue services (pap, flu shot)
    • Patient in for a cold also gets her pap smear
Prevention on the walls, counters, organization of care

• Posters about Folic acid, car seats for children, vaccinations, transparent bowel man

• A small bowl of condoms in the exam room: “better safe than sorry, please help yourself”

• Huddle in AM: “do Full vitals”
For Patients age 50 to 75:

Have you done your Fecal Occult Blood test (to detect early bowel cancer) yet?

If not:

Please pick up a kit here and ask the receptionist to give you a lab requisition to put in the kit.
Sometimes part of other visits?

Screening: examples

• Blood pressure (at appropriate visits)
• Cholesterol (low risk: 3 yrs)
• Pap smears (2 to 3 yrs)
• Depression (How often to screen is not known. More often if chronic condition)
Could be part of other visits?

Counseling: examples

• Smoking: Every visit!
• Diet
• Exercise
• Contraception
Breaking the habit

• Most services do not need to be done yearly

• Encourage self-management
  – “You are taking great care of yourself! Congratulations on planning to start walking”
  – “You do not need to come in yearly, I will see you in two years.”
This is an audit of my practice

*2011 is estimated
Consider

• Lengthening time between “full check ups”:
• Having screening alerts and patient reminders that are independent of CPX:
  – Mailed reminders for mammos/paps/FOBT
  – Point of care reminders when patients are seen for other reasons
  – Ask about smoking when in for URI/pregnant
• Reviewing examinations and tests done at CPX (are they necessary?)
Evidence based prevention

• The Annual Check-up is a common activity for us
• We can think about what we do and how often we do it
• We can make prevention more effective and efficient

• Our patients benefit from preventive activities that are targeted to their needs
THANK YOU!