C-CHANGE: Harmonizing Cardiovascular Prevention Guidelines in Canada

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Primary Care Stroke Update: March 2013

Disclosure of Potential for Conflict of Interest Primary Care Stroke Update: What's New in Best Practice Prevention & Care

Wednesday March 6th, 2013

Presenter
Dr. Sheldon Tobe

DISCLOSURE:

- **Have received honoraria for past academic talks from pharmaceutical manufacturers including Pfizer, Bristol-Myers, Amgen, Roche, Merck, Valeant and Boehringer-Ingelheim**
- **Research investigator with Abbott, AstraZeneca, Pfizer, Janssen, Novartis, Bristol-Myers, Amgen, Roche, Merck and Boehringer-Ingelheim**
- **Member of the Advisory Board for Pfizer, Merck, Abbott, Bristol-Myers, Otsuka and Takeda**

AHA/CDC/NIH annual Report

- Rate of death from CVD has fallen but burden of disease remains high
- Age standardized mortality rate 251/100,000 in 2007
- In the US 1/6 deaths is due to CHD and 1/18 due to stroke
- 33.5% of US population (≥20y) has HT
- In 2008, 8% of US adults had diagnosed DM (an equal number has undiagnosed disease)
- 33.7% of US adults obese in 2008

- Roger VL, Circulation 2012

Case: Office Management of CV Risk

55 yo male with stroke 1 year ago from hypertension has a BP in the office of 152/90 mmHg. He has completed rehab.

What would be your target & priority for:

- BP and frequency of measures?
- Lipids (LDL 3.7; HDL 0.9)
- Fasting glucose (7.1; HbA1C 7.9%)
- Waist circumference (104 cm)
- Physical activity

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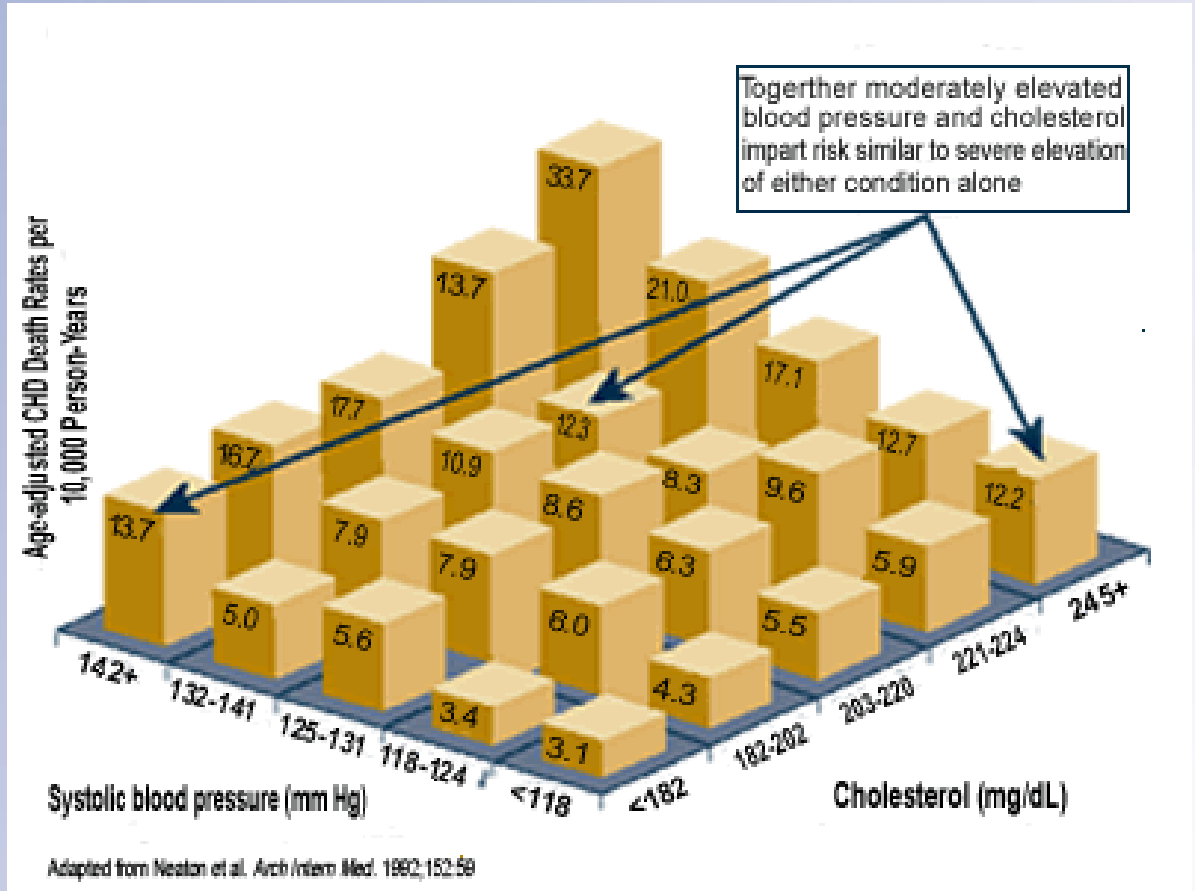
Interactions of SBP & Cholesterol Effects

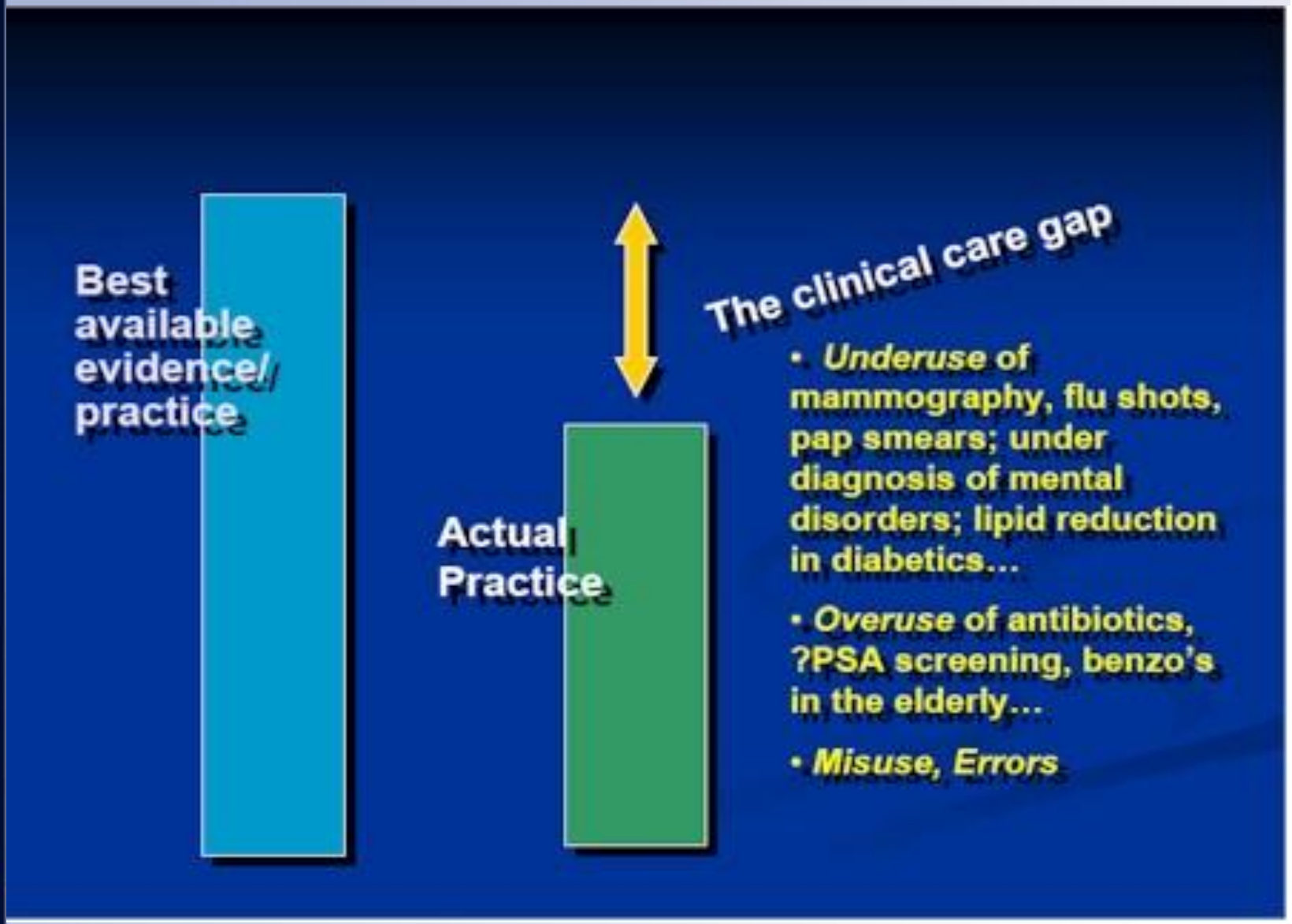


Population Attributable Risk of Stroke for various risk factors

	All stroke (n=3000 cases, n=3000 controls)
Model 1: self-reported hypertension, smoking status, waist-to-hip ratio, diet risk score, regular physical activity, diabetes mellitus, alcohol intake, psychosocial factors, and cardiac causes	82·4% (76·2–87·3)
Model 2: self-reported hypertension or blood pressure >160/90 mm Hg, smoking status, waist-to-hip ratio, diet risk score, and regular physical activity	83·4% (77·7–87·8)
Model 3: model 2 plus diabetes mellitus, alcohol intake, psychosocial factors, and cardiac causes	86·1% (80·8–90·0)
Model 4: model 1 plus ratio of ApoB to ApoA1 (n=4257)	88·1% (82·3–92·2)
Model 5: model 3 plus ratio of ApoB to ApoA1 (n=4257)	90·3% (85·3–93·7)

O'Donnell MJ, Lancet 2010, Stroke and INTERSTROKE

Knowledge Translation Gap



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World Wide Guideline Challenges

Many overlapping guidelines:

- National Guidelines Clearinghouse lists more than 7,000 guidelines, and 469 of which pertains to cardiovascular disease
  http://www.guideline.gov/browse/by-topic.aspx
- CMAJ website 9 of 57 guidelines in Canada all address atherosclerosis and cardiovascular disease
  http://www.cmaj.ca/misc/service/guidelines.dtl

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The C-Change Collaborative

Partner Organizations

- **Canadian Association for Cardiac Rehabilitation (CACR)**
- **Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-informed Tobacco Treatment (CAN ADAPT)**
- **Canadian Cardiovascular Society (CCS) - Lipids**
- **Canadian Diabetes Association (CDA)**
- **Canadian Hypertension Education Program (CHEP)**
- **Canadian Society for Exercise Physiology (CSEP)**
- **Canadian Stroke Network (CSN)**
- **Obesity Canada**

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Question

If you put all of the previous organization's guidelines together, how many recommendations would you have in total?

- And many say the same thing but with different words
- Many have conflicting messages

1. 87
2. 132
3. 215
4. 290
5. >350

C-CHANGE: Canadian Cardiovascular HArmonized National Guidelines Endeavour

The Principles of C-CHANGE

1. Informed by evidence

2. Implementable in practice

3. Improve care and outcomes that are measurable


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Physical Activity

- Adults aged 18-64 years and Older Adults 65 and over should accumulate 150 minutes/week of moderate intensity physical activity, or 90 minutes of vigorous-intensity physical activity in periods of at least 10 minutes each. Greater amounts of activity and more vigorous activity provide additional benefits.
- Engage in resistance activities on 2-4 days per week.
- Engage in flexibility activities 4-7 days per week.

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SCREENING STRATEGIES	
Hypertension and Stroke	All persons at risk of stroke should have their blood pressure measured at each health care encounter, but no less than once annually
	Persons at risk of stroke and patients who have had a stroke should be assessed for vascular disease risk factors and lifestyle management issues (diet, sodium intake, exercise, weight, smoking and alcohol intake). They should receive information and counselling about possible strategies to modify their lifestyle and risk factors.

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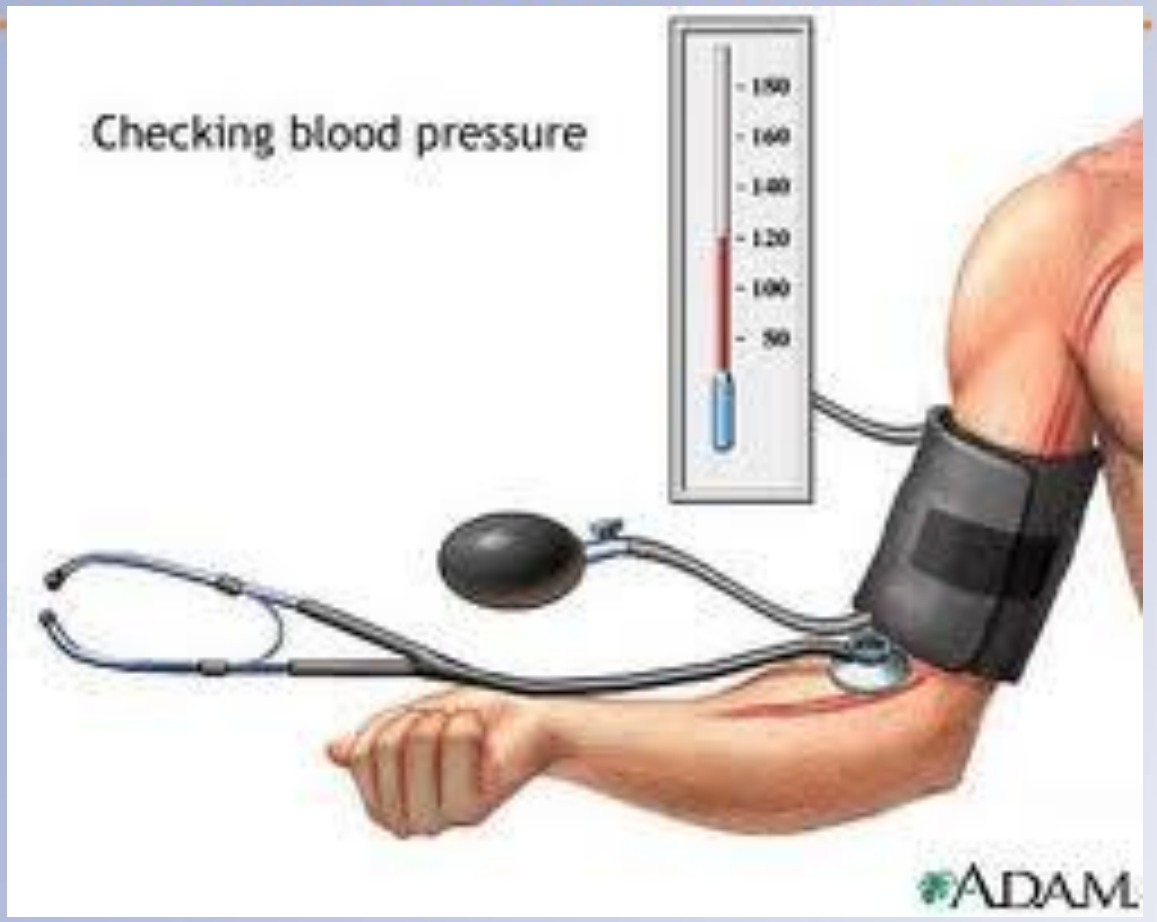
- Tobe SW CMAJ 2011. CHANGE Recs


Checking blood pressure
ADAM.

Treatment Targets

- Two or fewer standard drinks per day;
- Maintenance of a healthy body weight
- Healthy balanced diet
- Targeted to achieve an A1C of ≤ 7.0%
- Sodium: A daily upper consumption limit of 2300 mg
- Lipids:High risk: LDL-C < 2.0 mmol/L or 50% in LDL-C; alternate target: apoB < 0.80 g/L
- BP: Following the acute phase of a stroke, patients should have their blood pressure chronically controlled to a target of less than 140/90 mm Hg.

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From Innovation to Action:

The First Report of the Health Care Innovation Working Group

- The Clinical Practice Theme Group found there are hundreds of sometimes conflicting guidelines for heart disease, creating confusion among clinicians and the patients that they serve. To reduce confusion and promote better care**, it was recommended by the theme group that the *C-CHANGE Guidelines tor Cardio-vascular Disease recently* published by the Canadian Cardiovascular Harmonization of National Guidelines Endeavour (C-CHANGE) be adopted Canada-wide.** The C-CHANGE guidelines were the result of the work of eight organizations that worked together on harmonizing and integrating more than 400 recommendations into 89 key recommendations, reducing confusion by introducing a standard of care, increasing patient safety.

July 2012, Council of the Federation Health Innovation Report

Thank You

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