CHEP

Module 2

Global Cardiovascular Risk Assessment and Reduction in Women with Hypertension

This program meets the accreditation criteria of The College of Family Physicians of Canada and has been accredited for up to 1 Mainpro-M1 credits.

Global Cardiovascular Risk Assessment and Risk Reduction in Hypertensive Women

- Pamela
  - A 54-year-old, post-menopausal woman presents to your office for an annual examination

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Notes

Indicate to the group that this patient will be the focus of today's case discussion.

Case Development & Disclosures

Case authors:

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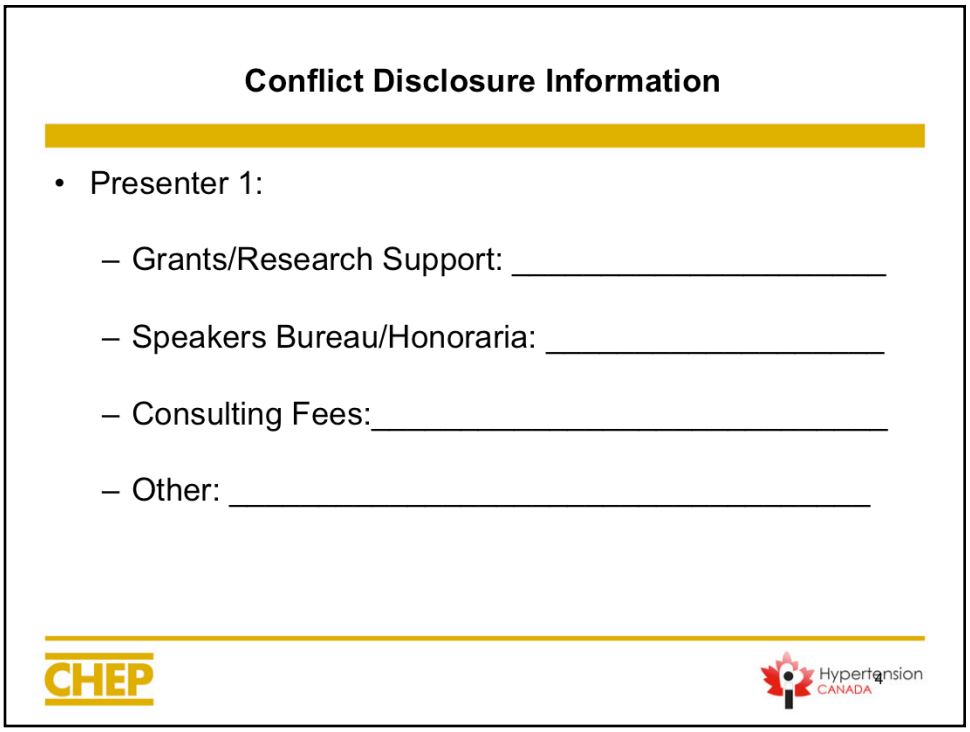
Notes

Read out the case authors and their disclosure information.



Instructions

Fill out prior to the meeting and disclose to the group any real or apparent conflict(s) of interest that may have a direct bearing on the subject matter of this CME program (based on the guidelines below).

Allow other participants to introduce themselves and give a brief outline of their practice and interests.

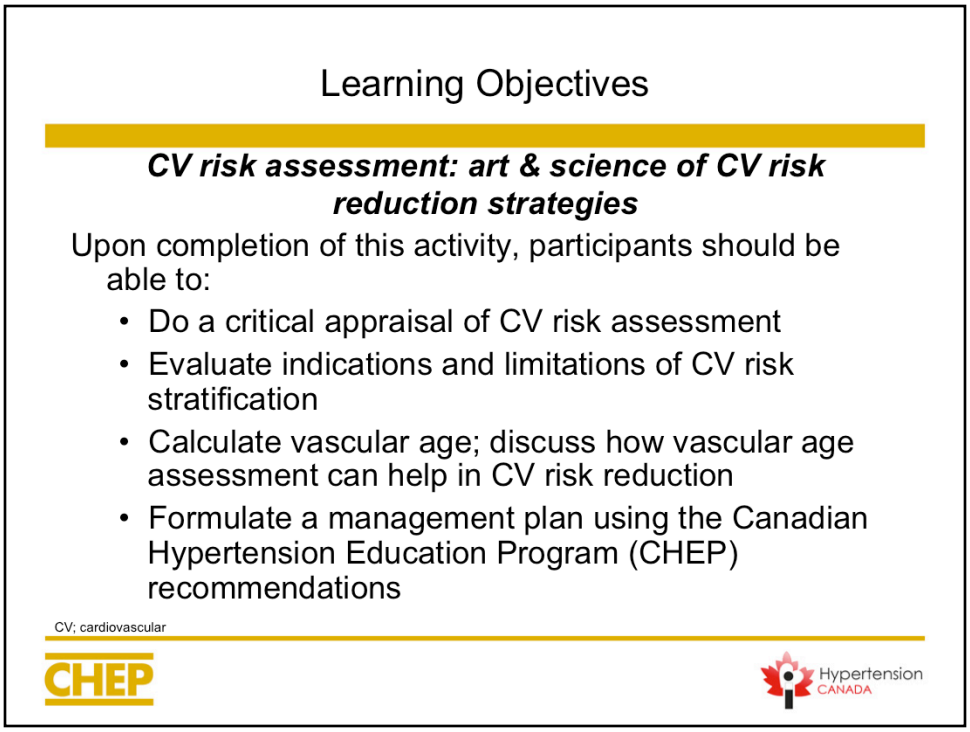
Guidelines for Disclosure:

To ensure balance, independence, objectivity and scientific rigor, please disclose to program participants any real or apparent conflict(s) of interest that may have a direct bearing on the subject matter of this CME program. This pertains to relationships with pharmaceutical companies, biomedical device manufacturers, or other corporations whose products or services are related to the subject matter of this program. The intent of this disclosure is not to prevent a facilitator with a potential conflict of interest from making a presentation. It is merely intended that any potential conflict would be identified openly so that the participants may form their own judgments about the program with the full disclosure of the facts. It remains for the audience to determine whether the facilitator's outside interests may reflect a possible bias in either the exposition or the conclusions presented.

Example

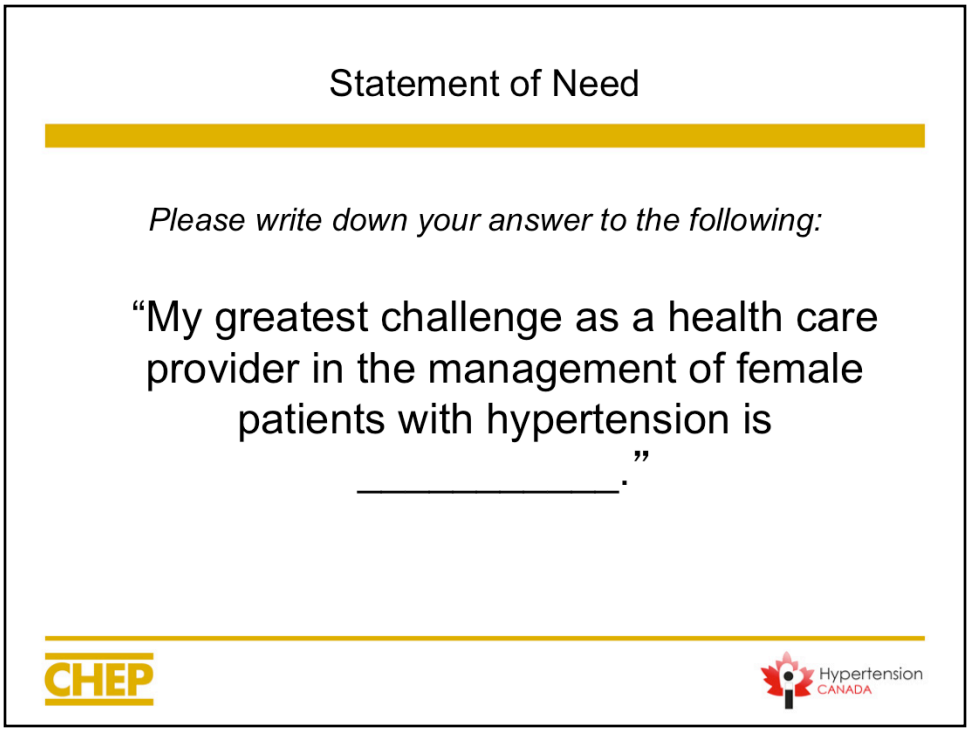
•Grants/Research Support: **PharmaCorp ABC**

•Speakers Bureau/Honoraria: **XYZ Biopharmaceuticals Ltd.**



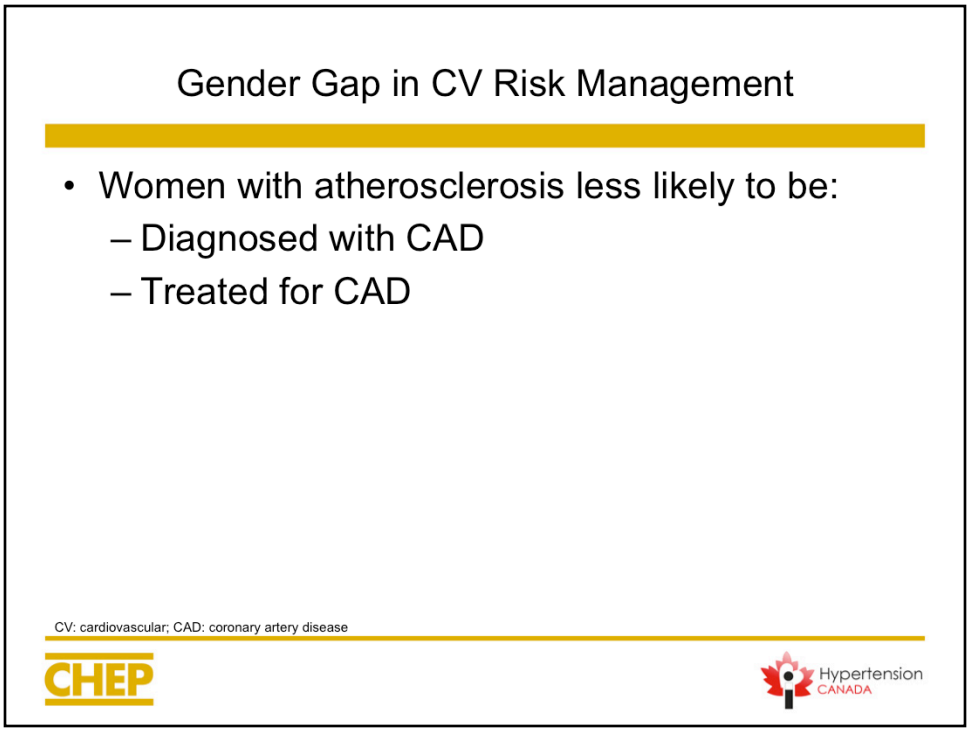
Notes

Review the learning objectives for today's activity.



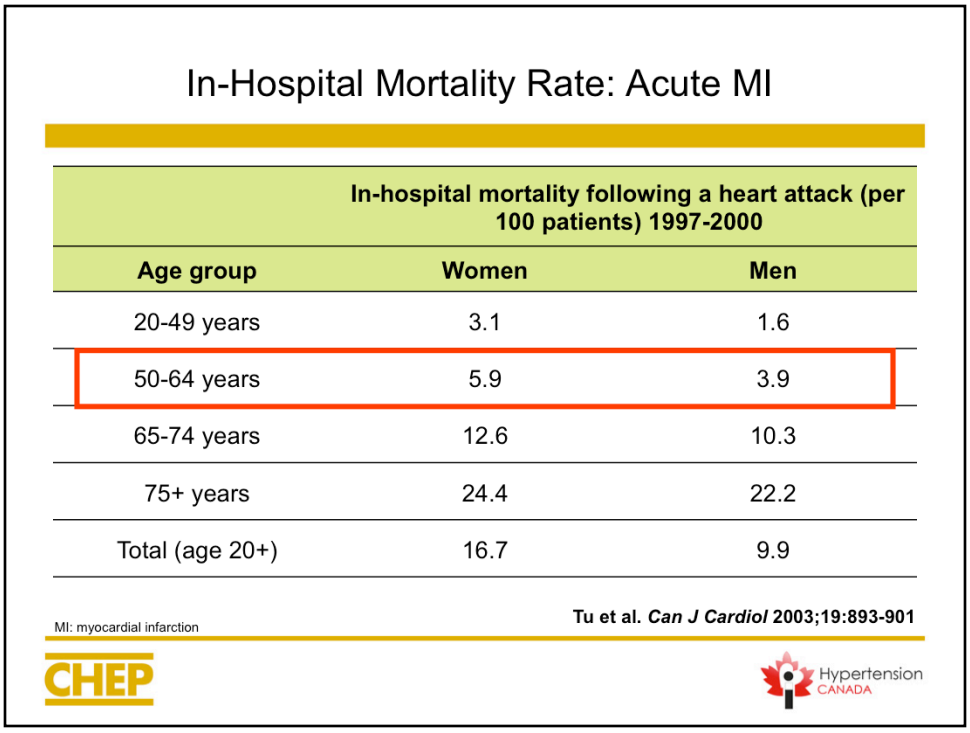
Notes

Quickly go around the room and ask each participant to complete this statement.



Notes

Review the gender gaps in management of cardiovascular disease.



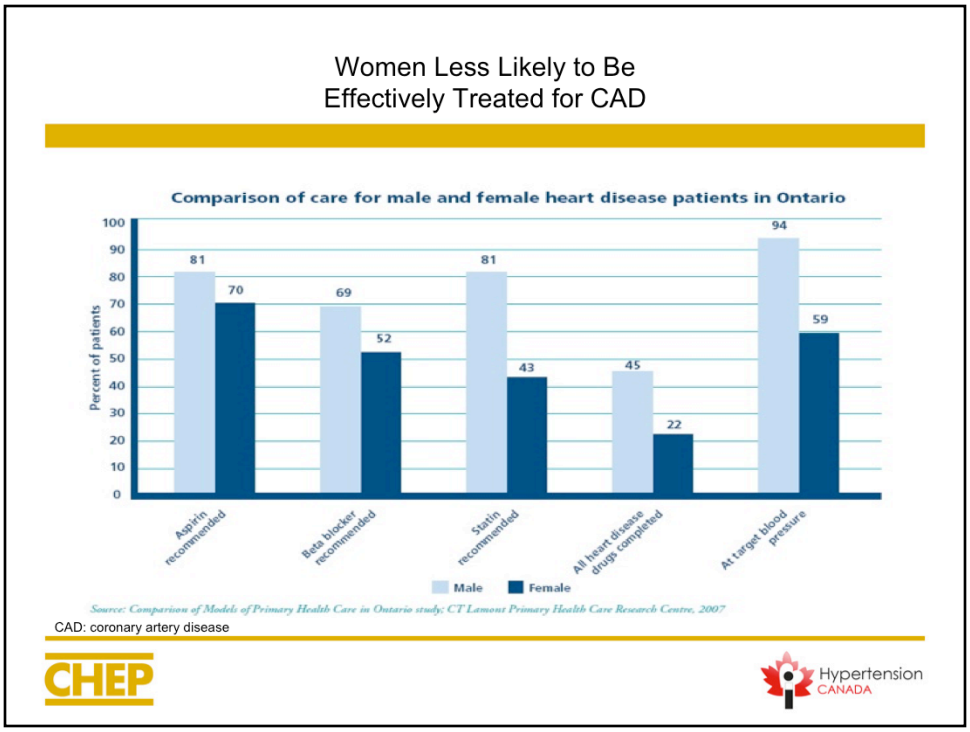
Key Points

A study by the Canadian Cardiovascular Outcomes Research Team, showed that acute MI is associated with a substantial increase in mortality in Canada, especially in elderly and female patients. At any given age, the mortality in women exceeds mortality in men. Age- and sex-specific 30-day in-hospital mortality rates after an acute MI are shown above.

In total, 139,523 patients were included in the study, of whom 35.3% were women and 64.7% were men. The study examined all new cases of acute MI in Canadian patients ≥20 years old that occurred between fiscal years 1997/98 and 1999/2000.

Reference

1. Tu JV, et al. for the Canadian Cardiovascular Outcomes Research Team (CCORT). Outcomes of acute myocardial infarction in Canada. *Can J Cardiol* 2003;19:893-901.



Key Points

Hogg et al. compared primary care models in Ontario, looking specifically at the level of care provided to male and female heart disease patients. The percentage of male patients receiving pharmacotherapy was found to be much higher as compared to female patients. Furthermore, only 59% of women vs. 94% of men were noted to have achieved blood pressure targets.

Reference

1. Hogg WE, et al. Comparison of Models of Primary Health Care In Ontario. 18th World Organization of Family Doctors. (WONCA) Conference, Singapore. July 2007.

Pamela

Patient history

- Pamela, a 54-year-old teacher who is post-menopausal, presents for an annual exam
- She attends aerobic classes 2x/week
- She admits to smoking 3-4 cigarettes/day, and occasionally more, when stressed
- She has no health complaints and is not on any medications

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Notes

Review the case study slide with the group.

Several questions are integrated in the case presentation – when these appear on screen, allow the group to discuss their possible answers and the rationale behind them before moving on to review feedback from the case authors.

Missing data are to be assumed NORMAL, to prevent prolonged discussions.

Pamela

Family history

- Mother, aged 74, diagnosed with intermittent claudication at 62 years of age
- Father, aged 79, no history of CV disease

Physical exam

- BMI: 26.8 kg/m^2; waist circumference: 87 cm
- BP: 148/88 (avg. of repeated measures with validated oscillometric device [eg, Bp-TRU])
- HR: 72 bpm
- Nothing else of significance on physical exam
- You send Pamela for routine labs

Bp-TRU® (BPM-100) Vsm Medtech, Coquitlam, BC, Canada

CV: cardiovascular; BMI: body mass index; BP: blood pressure; HR: heart rate

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Notes

Review the patient's family history, and then the results of the physical exam.

Missing data are to be assumed NORMAL, to prevent prolonged discussions.

Pamela: Laboratory Investigations

Test	Results	Normal values
Fasting glucose	6.0 mmol/L	4.0-6.0 mmol/L
Urea	4.0 mmol/L	3.0-7.0 mmol/L
Creatinine	76 µmol/L; eGFR 116 ml/min	44-106 umol/L
K	4.1 mmol/L	3.5-5.0 mmol/L
$A1_c$	0.06	0.04-0.06
Hb	124 g/L	115-165 g/L
LDL	3.3 mmol/L	<3.3 mmol/L
TC	5.2 mmol/L	<5.2 mmol/L
TG	1.7 mmol/L	<2.2 mmol/L
HDL	0.9 mmol/L	>0.9 mmol/L
TC:HDL	5.78	<6.0

eGFR: estimated glomerular filtration rate; K: potassium; $A1_c$: glycated hemoglobin a l; Hb: hemoglobin; LDL: low-density lipoprotein; TC: total cholesterol; TG: triglycerides; HDL: high-density lipoprotein; TC:HDL: total cholesterol high-density lipoprotein ratio

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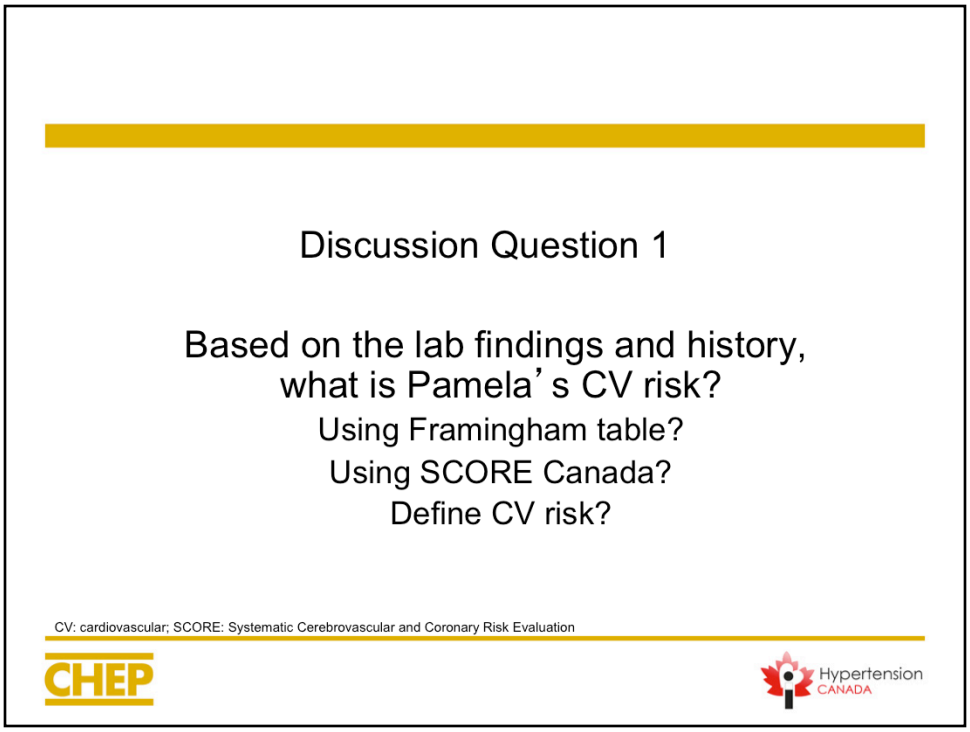
Notes

Review the results of lab investigations that were performed.

Discuss the implications of these findings.

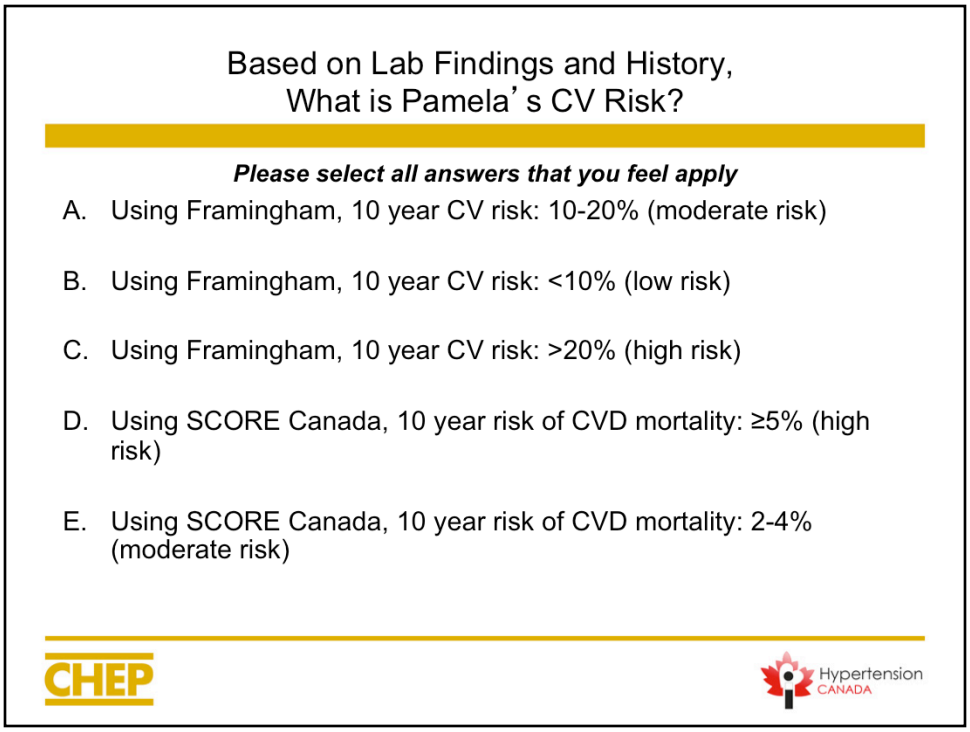


Notes

Discuss the question with the group.

Most physicians, family physicians, and specialists have very imprecise knowledge regarding Framingham tables (20+ tables, CAD or CVD) and SCORE Canada has been recently introduced. The "predicted CV risk" is usually confusing. Ask participants to be specific; highly variable answers are to be expected.

Reminder: Allow the group to discuss their possible answers and the rationale behind them before moving on to review feedback from the case authors.



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CV Risk Estimation: The Framingham Heart Study

Estimation of 10-year risk of total cardiovascular disease in women (Framingham Heart Study)

POINTS	Age	HDL-C mmol/L	Total Cholesterol	SBP Not Treated	SBP Treated	Smoker	Diabetic
–3				<120			
–2		>1.6					
–1		1.3-1.6			<120		
0	30-34	1.2-1.3	<4.1	120-129		NO	NO
1		0.9-1.2	4.1-5.2	130-139			
2	35-39	<0.9		140-149	120-129		
3			5.2-6.2		130-139	YES	
4	40-44		6.2-7.2	150-159			YES
5	45-49		>7.2	>160	140-149		
6					150-159		
7	50-54				160+		
8	55-59						
9	60-64						
10	65-69						
11	70-74						
12	75+						
Points Allotted							TOTAL POINTS 14-16

CV: cardiovascular

Genest et al. *Can J Cardiol* 2009;25:567-79; Adapted from D'Agostino et al. *Circulation* 2008;117:743-53

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Notes

Review the CV risk calculation using the patient's data

Published in CMAJ, the above table allows for the risk prediction of total CV disease, over the next ten years. Please note that categories are not mutually exclusive, with secondary variation in risk estimation.

CV Risk Estimation: The Framingham Heart Study

Cardiovascular disease risk for women

Points	Risk, %	Points	Risk, %	Points	Risk, %
–2 or less	<1	6	3.3	14	11.7
–1	1.0	7	3.9	15	13.7
0	1.2	8	4.5	16	15.9
1	1.5	9	5.3	17	18.51
2	1.7	10	6.3	18	21.5
3	2.0	11	7.3	19	24.8
4	2.4	12	8.6	20	27.5
5	2.8	13	10.0	21+	>30

Genest et al. *Can J Cardiol* 2009;25:567-79; Adapted from D'Agostino et al. *Circulation* 2008;117:743-53

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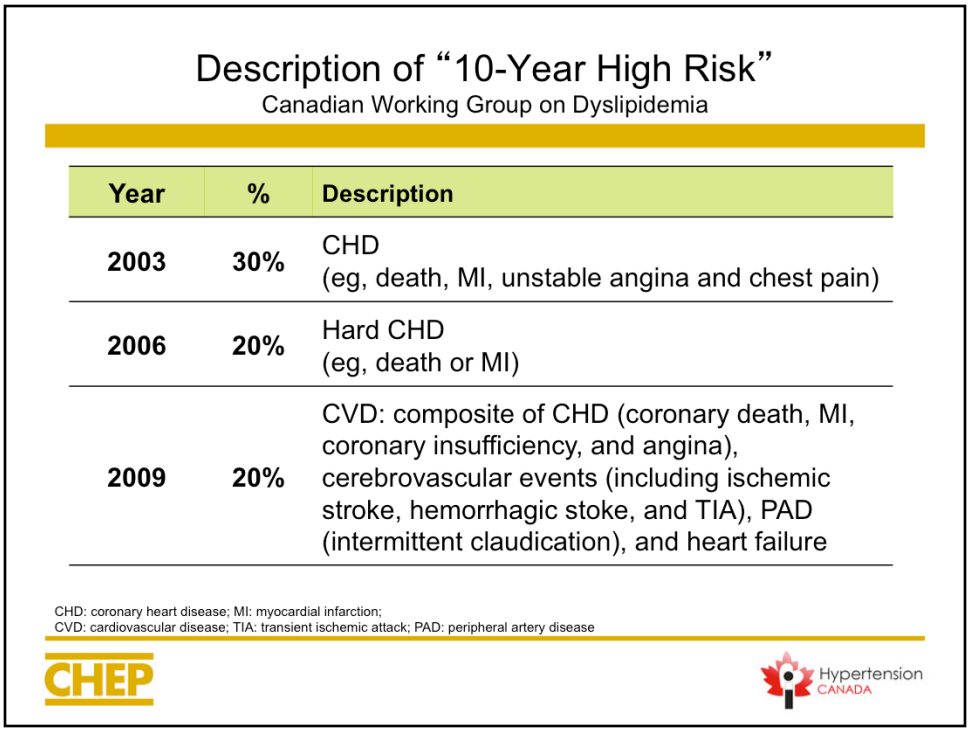
Notes

Review the CV risk calculation using the patient's data

From the calculated points, risk over the next ten years can be estimated, with the above variations.

Please ask participants to specify: low, moderate, or high risk (as per the Canadian Working Group on Dyslipidemia).



Notes

This slide provides a summary of the discussion of the previous slide, showing the changes to the % defining high risk in the different Framingham tables proposed over the last 10 years. These changes in outcomes have created higher CV risk stratifications for the same risk factors.

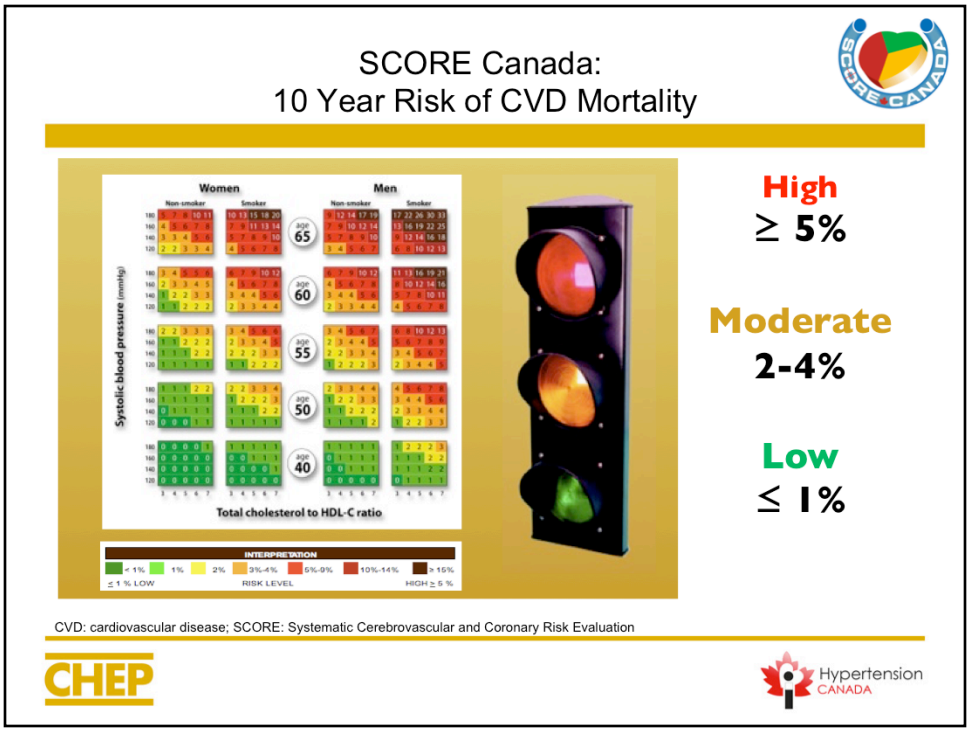
Also, over time, the clinical definition of morbidity events has changed greatly, currently having very little correlation to medicine today. If time allows, ask participants to compare the 1960 clinical definition of MI to today's definitions.

Key Points

In 2003, 2006, and 2009, the Canadian Working group on Dyslipidemia used different Framingham calculators. In 2003, a total coronary risk formula was recommended with a 30% level indicating high risk. In clinical trials, many of the adverse cardiac events were chest pain (50% in women).

In the 2006 recommendations, the CAD hard risk table introduced a change to 20% for the "high risk" category. In the most recent CV, BP, and lipid RCTs there were as many or more cerebrovascular events as cardiac events.

In 2009, the lipid panel chose a "general CV risk profile", this was very general and based on past clinical definitions. However, even if extending the variety of outcomes, the same 20% limit was quoted as "high risk" instead of reverting to 30%, or choosing 35%, due to such a broad definition of CV events.

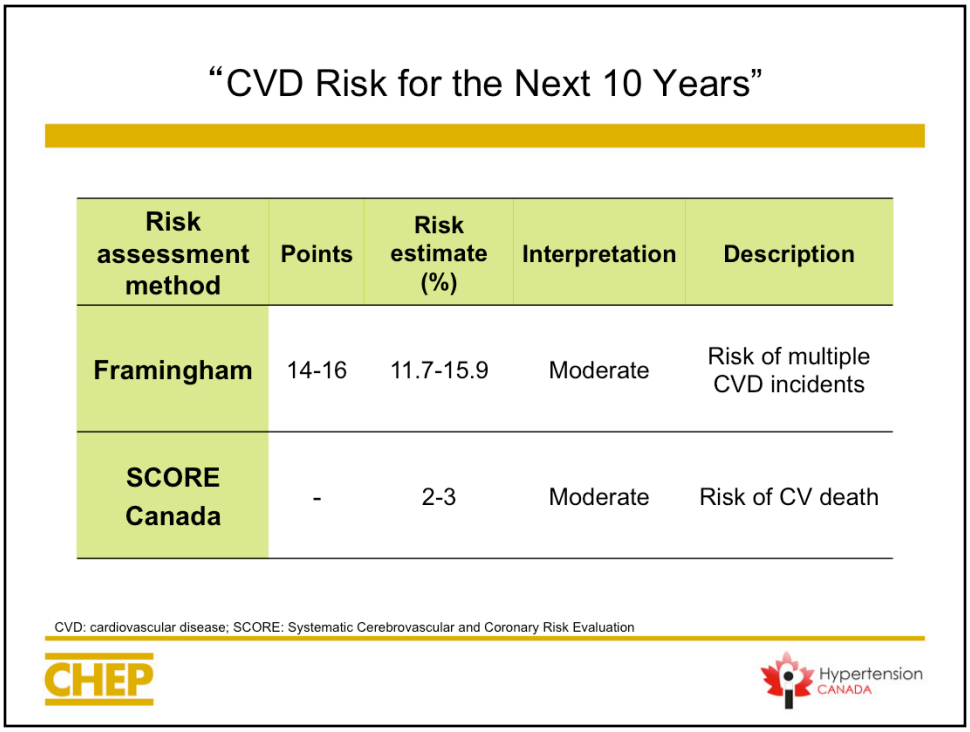


Key Points

SCORE Canada is the Canadian calibration of the SCORE system, a multi-European CV risk engine.

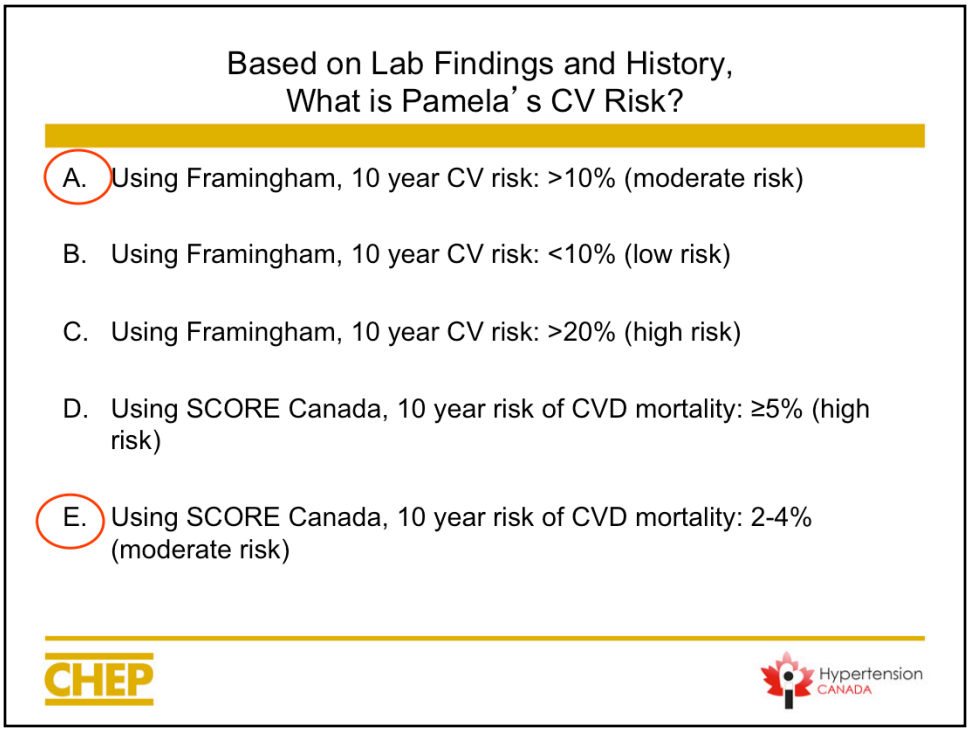
Using 14 different European cohorts, (n=205,178; >80,000 women, >8,000 CV deaths, ~3,000,000 pts/year exposure) it allows calculation of predicted CV death from cardiac and cerebrovascular events. The outcome data is clear, in high numbers, and allows comparison and calibration using selected national data. This is based on mortality data, as morbidity data are less reliable.

The cooperation of Dr. Michel Joffres, Simon Fraser University, and Professor Tony Fitzgerald, Cork University, Ireland allowed for a more precise Canadian risk engine by correcting for Canada CV risk factor prevalence and Canadian CV mortality. This approach has been validated in Germany, Belgium, Spain, and Switzerland where recent cohorts were available to correlate observed and predicted outcomes, with a satisfactory ratio.



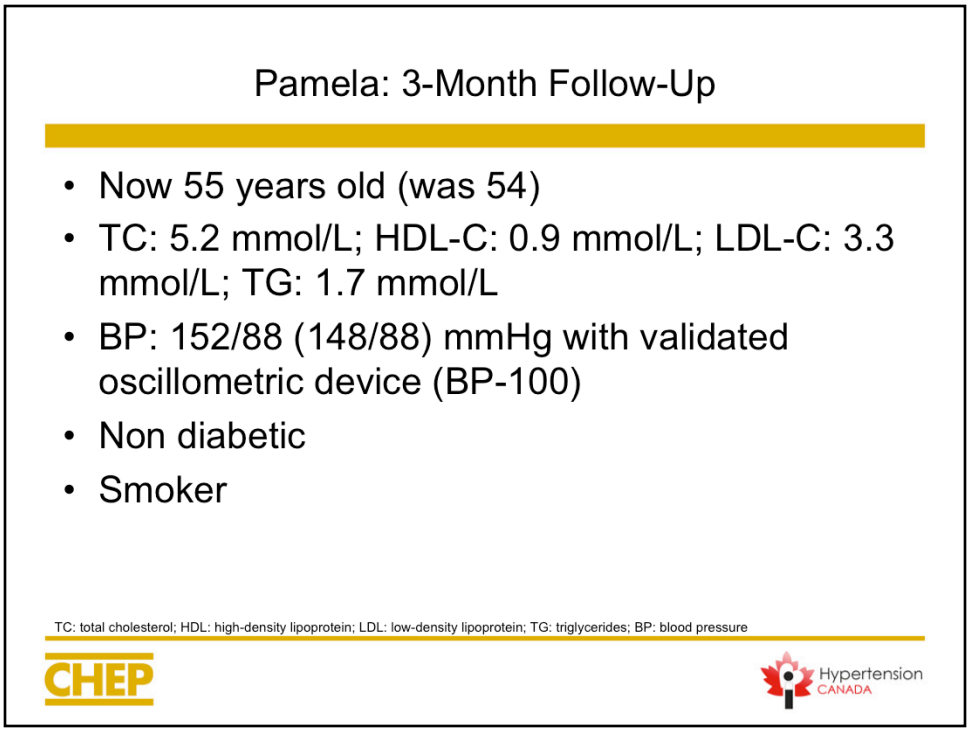
Key Points

For physicians wanting to determine morbidity (non-fatal MI and stroke) with SCORE Canada, the calculated mortality number must be multiplied by 3X.



Notes

Both answer choices A and E are correct.



Key Points

One reason why many physicians are confused and dissatisfied with the various risk stratification systems, is that small variations dramatically change the risk level when using the proposed Framingham point system, this is called the “boundary effect”.

CV Risk Estimation: The Framingham Heart Study

Estimation of 10-year risk of total cardiovascular disease in women (Framingham Heart Study)

POINTS	Age	HDL-C mmol/L	Total Cholesterol	SBP Not Treated	SBP Treated	Smoker	Diabetic
−3				<120			
−2		>1.6					
−1		1.3-1.6			<120		
0	30-34	1.2-1.3	<4.1	120-129		NO	NO
1		0.9-1.2	4.1-5.2	130-139			
2	35-39	<0.9		140-149	120-129		
3			5.2-6.2		130-139	YES	
4	40-44		6.2-7.2	150-159			YES
5	45-49		>7.2	>160	140-149		
6					150-159		
7	50-54				160+		
8	55-59						
9	60-64						
10	65-69						
11	70-74						
12	75+						
Points Allotted							TOTAL POINTS 17-19

CV: cardiovascular

Genest et al. *Can J Cardiol* 2009;25:567-79; Adapted from D'Agostino et al. *Circulation* 2008;117:743-53

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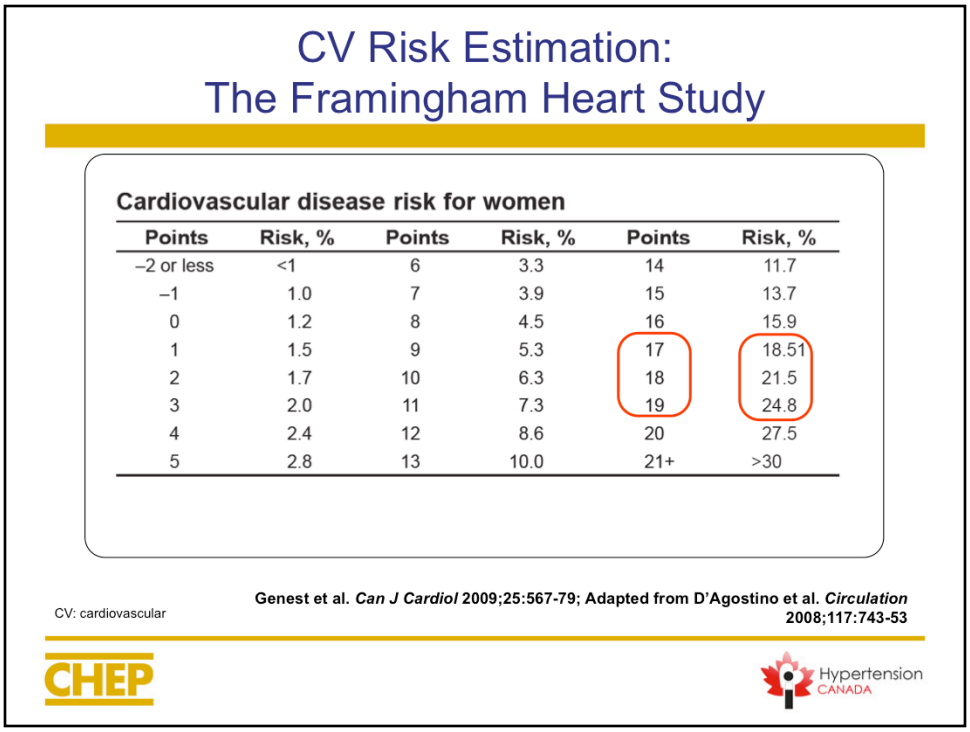
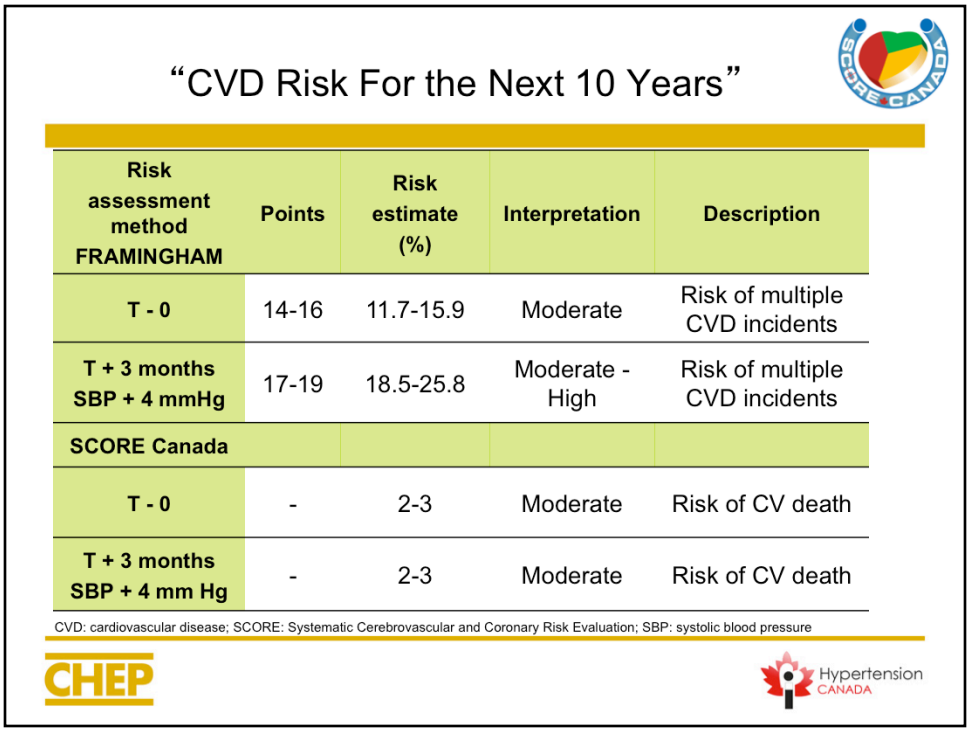
Key Points

As shown here, when recalculating the patient's risk, using small changes in CV risk factors, non-exclusive categories are still included for estimation, and results in further overestimation of risk.



Key Points

At Pamela's 3 month follow-up, there is a 4 mmHg change in BP, but Pamela is now considered high risk? As previously stated, due to a problematic technical system, the "boundary effect" is pervasive and results an unreliable estimation of CV risk. Consequently, these method-induced errors often result in unrealistic estimates inhibiting the use global risk stratification.



Notes

The following slides will consider risk estimation using the SCORE system.

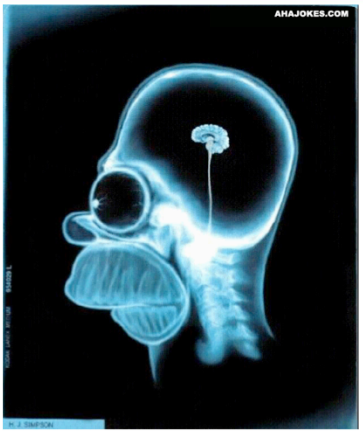
SCORE Canada is the Canadian calibration of the SCORE system, a multi-European CV risk engine.

Key Points

The large variation in estimated CV risk that results from minor changes in age and systolic BP is not in line with clinical experience. This slide provides a good example of why a "point system" may not be useful to estimate CV risk.

CV Risk Assessment

- Science or art…
- Science and art…



CV: cardiovascular

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Notes

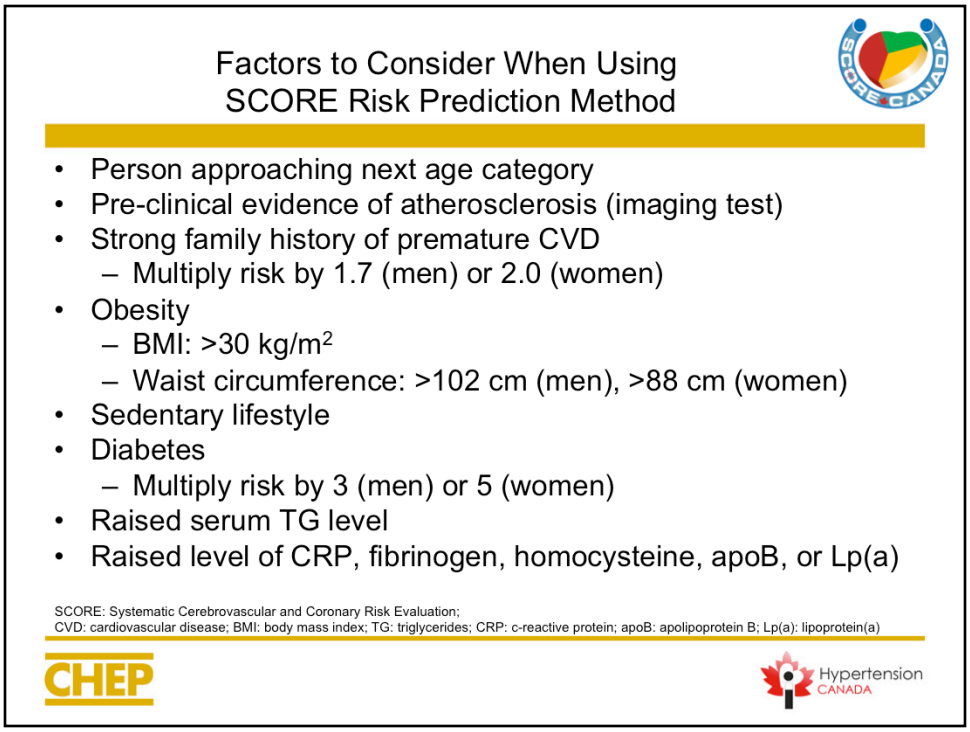
Ask the opinion of participants, and try to convey the message below.

Key Points

Assessing CV risk factors is a science (epidemiology) with rules (use of scientific tools to avoid technical errors, such as those introduced by the points system and the boundary effect).

In Canada, assessment should be done using risk engines calibrated for current-day Canada, which consider Canadian prevalence of CV risk factors and their impact among the Canadian population (i.e., mortality and morbidity experienced in Canada).

Clinicians should also use added information from their clinical practice as modulating factors to apply the art of medicine in their assessments (i.e., family history, imaging results).



Key Points

Total fatal CVD risk may be lower/higher than indicated in the standard chart for many patients.

Use the qualifiers shown in the slide to modulate total fatal CVD risk.

The charts should also be used in light of the clinician's knowledge and judgement, especially with regard to local conditions.

Rx Implications of SCORE Spain vs. Framingham (D'Agostino Revision) in Hypertensive Patients

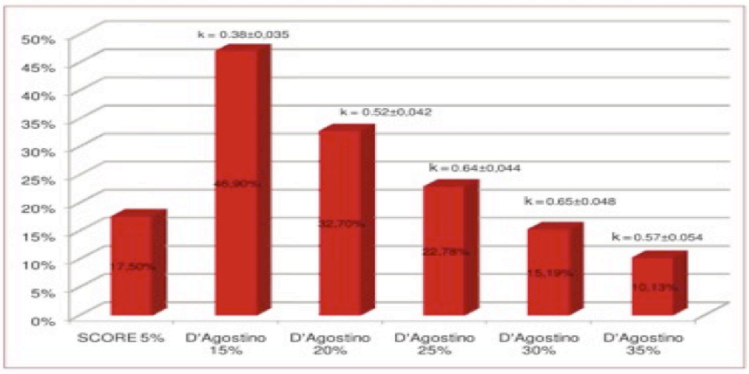


Figure 2
Proportions of subjects classified as high risk with SCORE (5%) and D'AGOSTINO at different cut-off points and agreement with SCORE. κ: Kappa index.

SCORE: Systematic Cerebrovascular and Coronary Risk Evaluation

Gómez-Marcos et al. *BMC Cardiovascular Disorders* 2009;9:17

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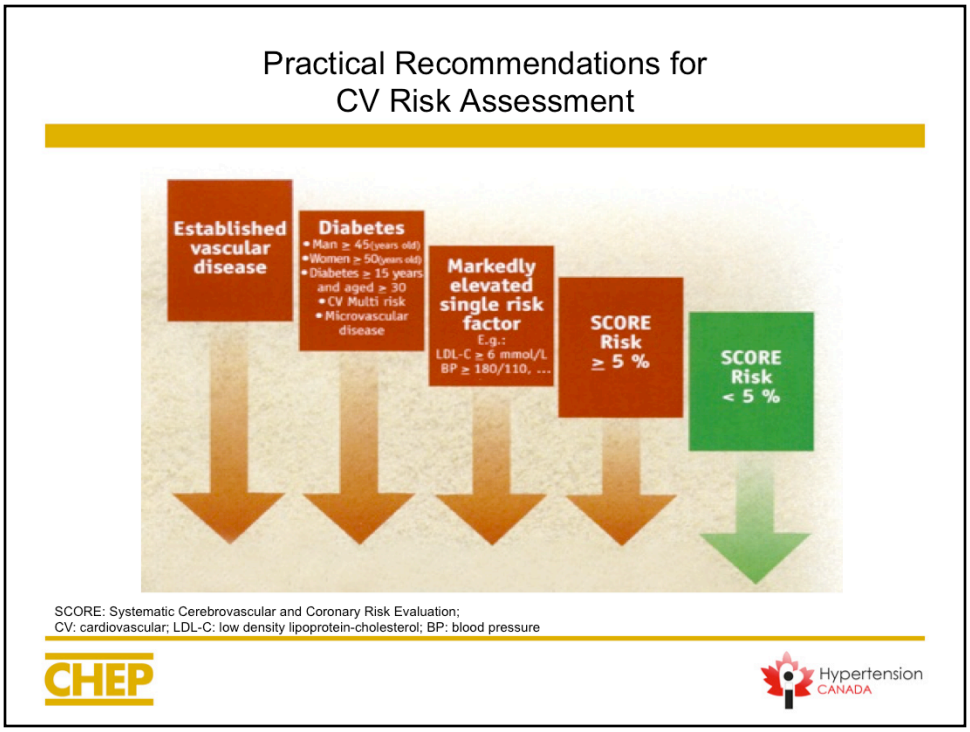
Key Points

This example from a hypertensive outpatient clinic in Spain compares the percentage of patients with hypertension at risk. SCORE Spain classified 15% of patients as high risk. In contrast, the commonly used Framingham 20% (as revised by D'Agostino) classified 30% of pts as high risk, a 200% over-classification. The SCORE Spain was calculated similar to SCORE Canada (basic SCORE risk engine, calibrated with recent Spanish CV risk factors and mortality). Additionally, SCORE Spain had the opportunity, using recent cohort data, to correlate the predicted/observed ratio and to proceed to an external validation.

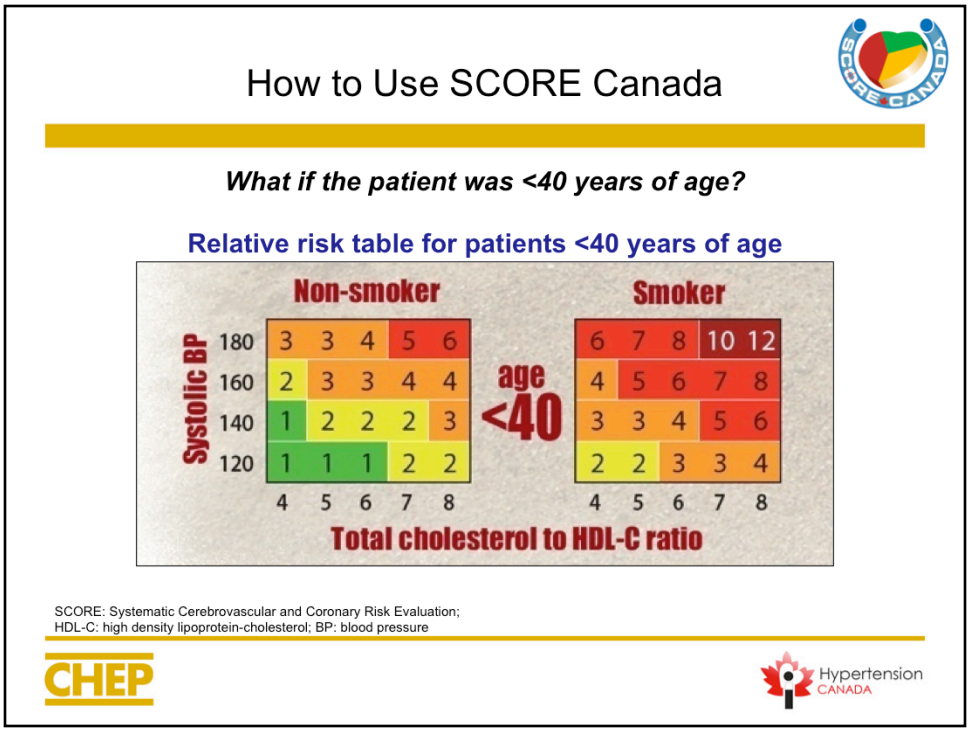


Key Points

Who should be risk stratified?

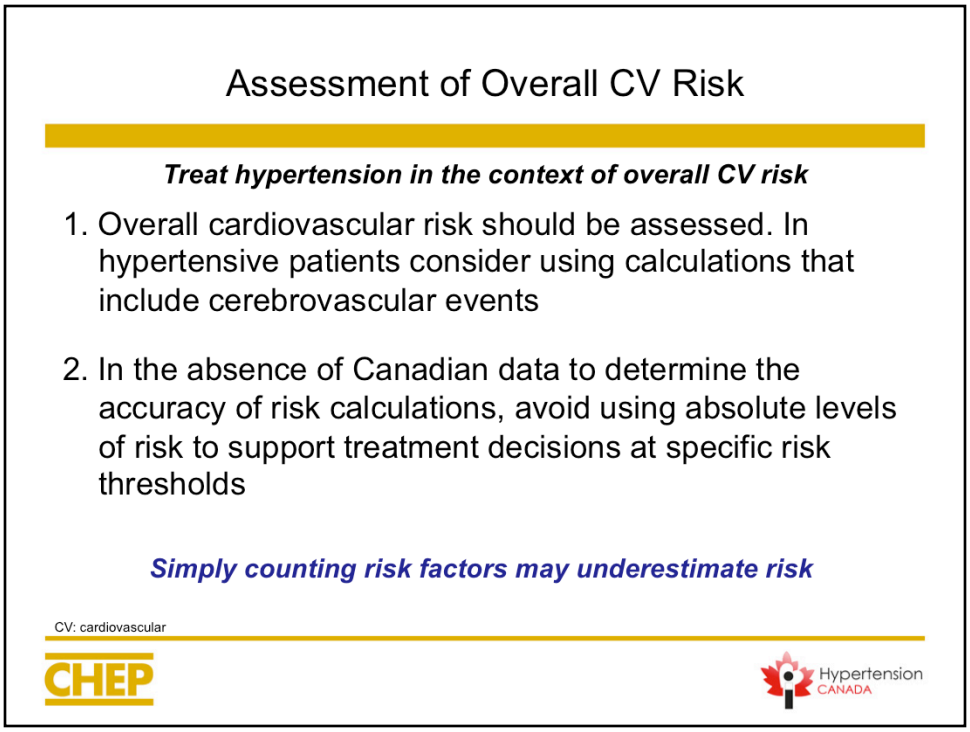
In general practice:

- 8-10% of patients are known vascular patients and are “de facto high-risk”
- 5-10% of patients have diabetes and CAD high CV risk indicators (men >45 years old, women >50 years old, diabetes for >15 years + age >30, diabetes + multiple CV risk factors, etc.)
- The presence of an extreme level of CV risk must be treated (e.g., BP >180 mmHg, LDL-C >6 mmol)
- 75-85% of patients must be offered a global CV risk evaluation, and therapy adjusted to global CV risk estimation. It is recommended that patients be re-evaluated for CV risk stratification on a 2-3 year schedule, if patient is not at high risk initially



Key Points

The “ten-year risk” estimate should not be applied to patients ≤40 years of age, since the CV risk (an absolute low over the next 10 years) will be greater 15-20 years later if it is not prevented. A “relative risk” to age must be estimated, comparing the relative CV risk induced by the different risk factors, as opposed to just considering a patient with optimal status as being at low risk (e.g., non-smoker, systolic BP = 120 mmHg, TC/HDL-C = 4).



Key Points

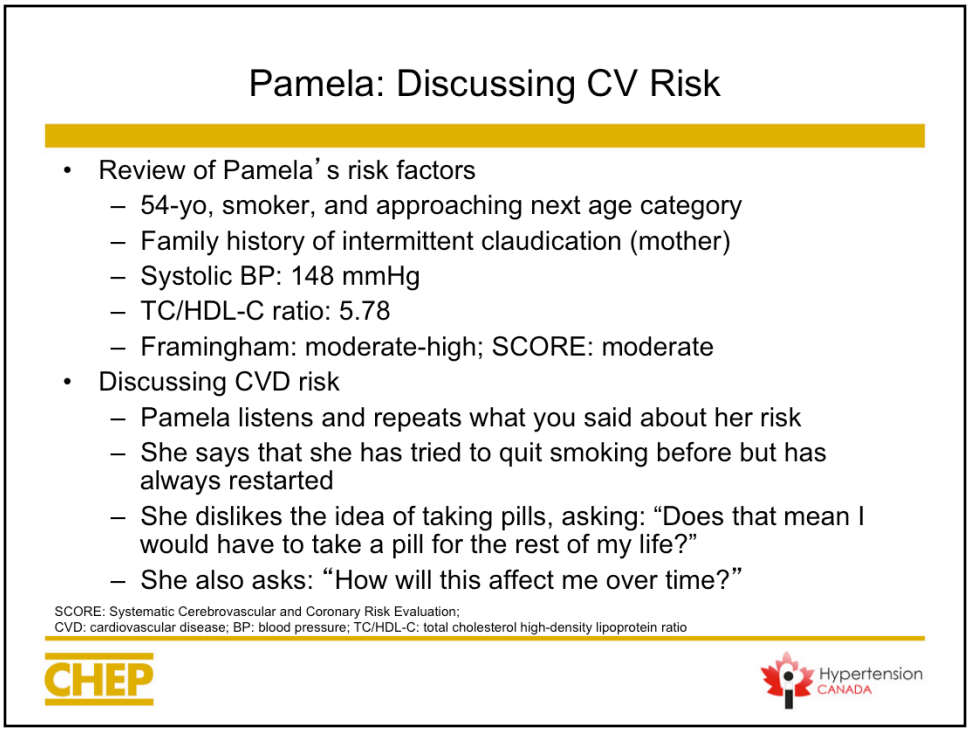
According to CHEP, global cardiovascular risk should be assessed. In the absence of Canadian data to determine the accuracy of risk calculations, avoid using absolute levels of risk to support treatment decisions.

Canadian data will not become available in the next 20 years, since there is no Canadian cohort available to do external validation. In selected European countries (France, Belgium, Switzerland, etc.) the process of comparing observed/expected results was repeatedly found to be highly successful.

As clinicians, we can be confident of the precision of risk estimation using SCORE Canada for our Canadian patients.

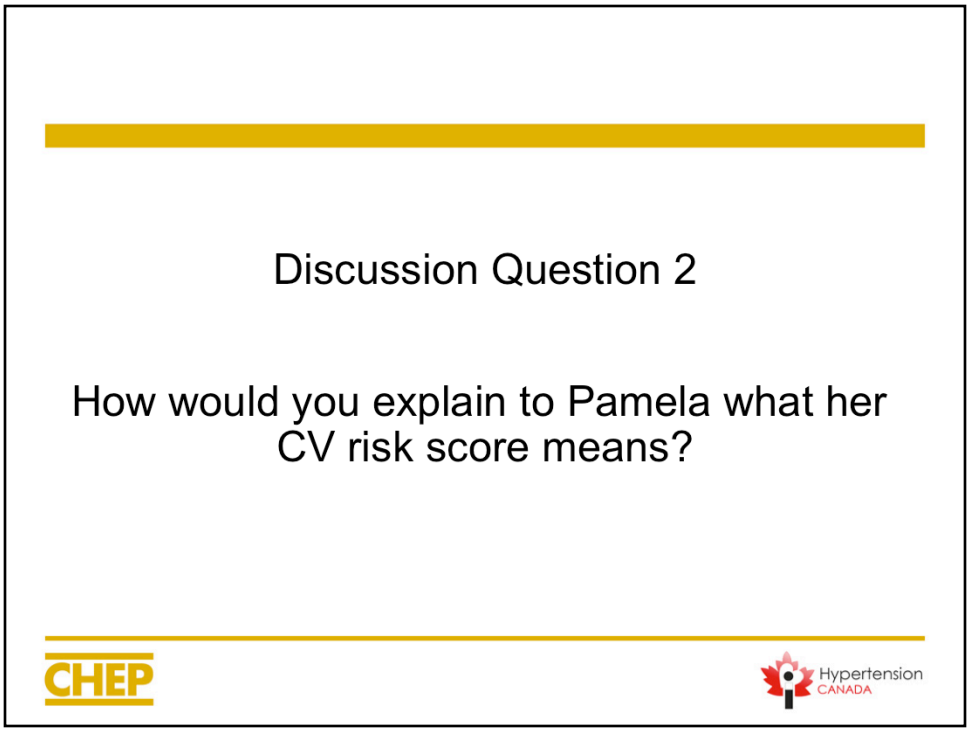
Reference

2011 Canadian Hypertension Education Program Recommendations.



Notes

Review the patient's risk factors with the SCORE assessment tool in mind.



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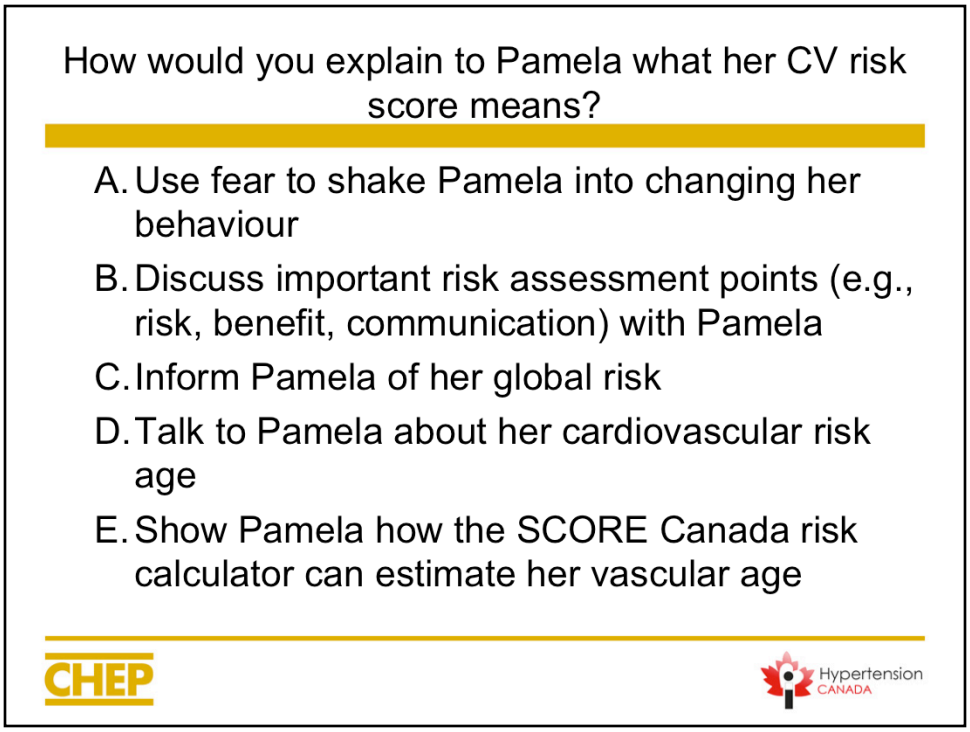

Notes

Discuss the question with the group.

Allow the group to discuss possible answers and the rationale behind them before moving on to review feedback from the case authors.

A) Use Fear to Shake Pamela Into Changing Her Behaviour

CVD: cardiovascular disease

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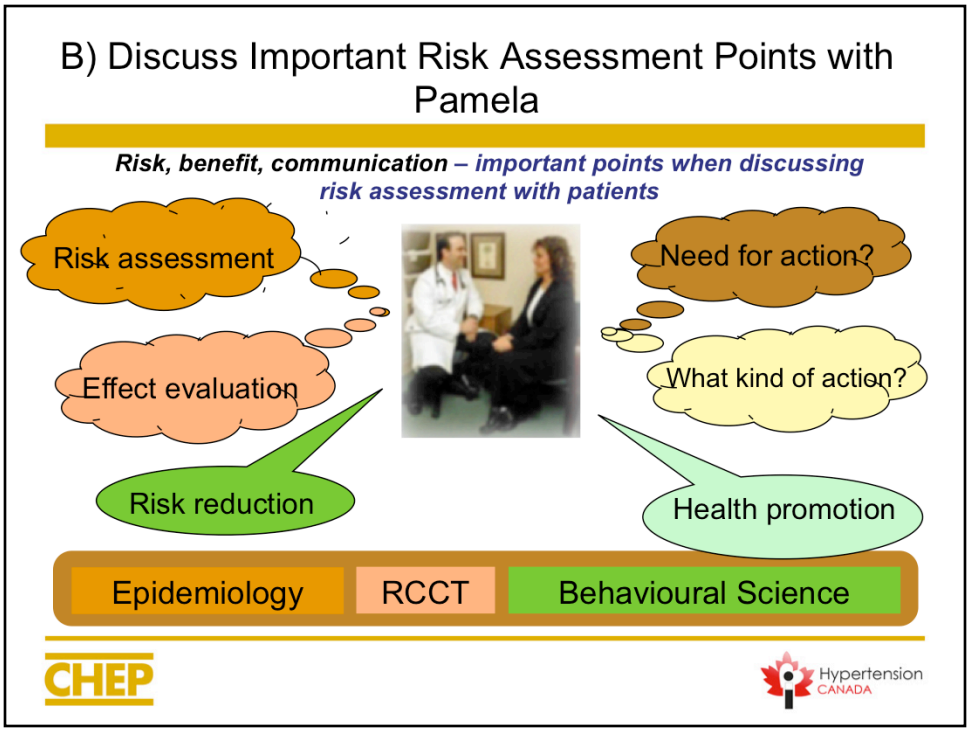
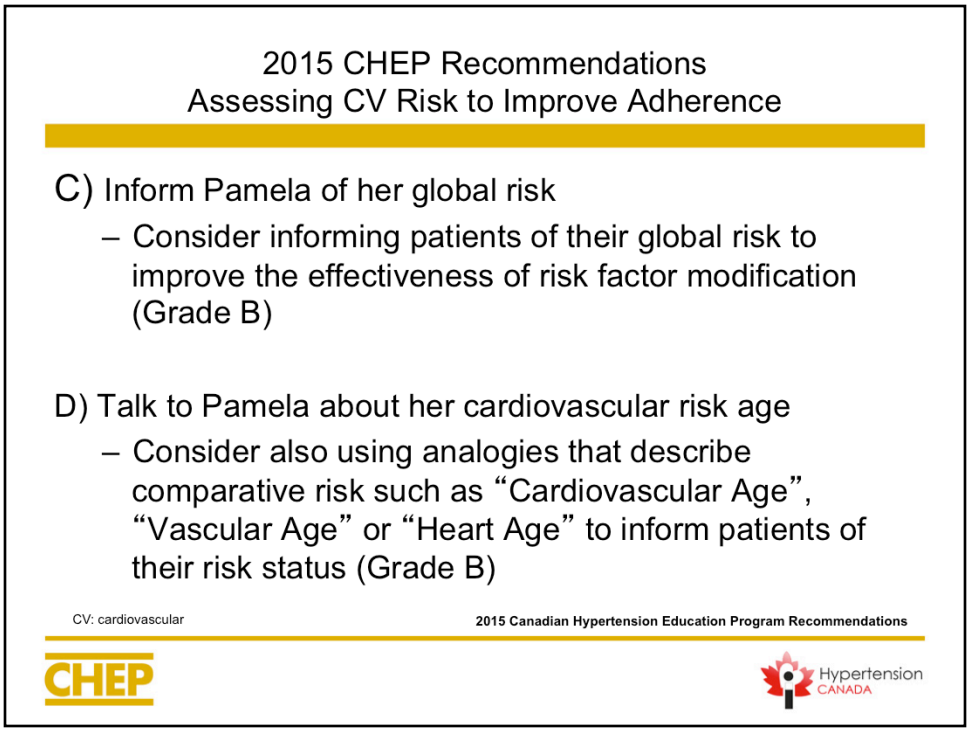
Notes

Although it may have little impact on some patients, hearing a 10-year risk CV assessment can be frightening for many others.



Notes

Discuss some of the points that are important when communicating risk assessment to patients.



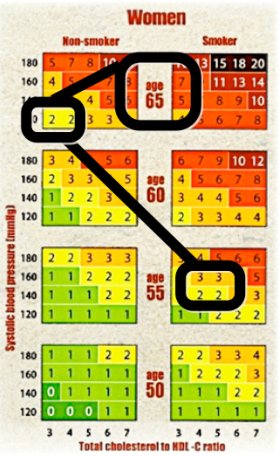
Key Points

Recent CHEP recommendations suggest the clinician consider informing patients of their global CV risk to improve the effectiveness of risk factor modification. Using analogies that describe comparative risk such as “cardiovascular age”, “vascular age”, or “heart age” can help inform patients of their risk status.

E) Pamela: Estimating Vascular Age with SCORE Canada

- Female, age 55
  - Smoker
  - SBP 152/88 mmHg
  - TC/HDL-C ratio 5.9
  - Non diabetic
  - **10-year CVD risk of death is 2-3%**

- Female, age 55
  - Non smoker
  - SBP 130mmHg
  - TC/HDL-C ratio 3
- **Vascular age: 65**



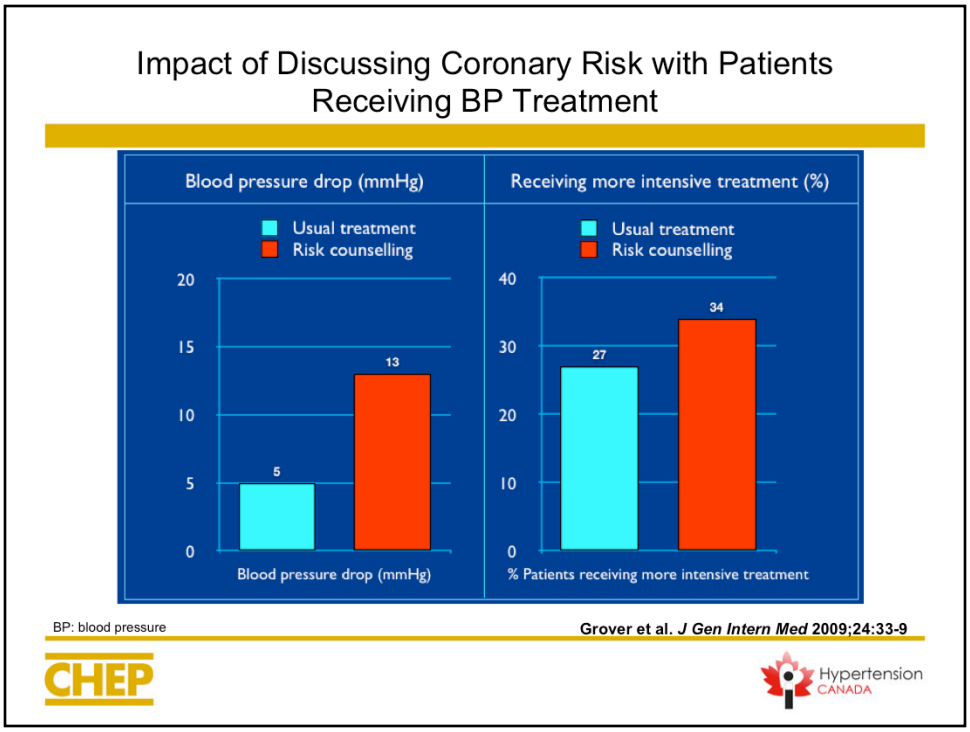
SCORE: Systematic Cerebrovascular and Coronary Risk Evaluation; BP: blood pressure; TC/HDL-C: total cholesterol high-density lipoprotein ratio

CHEP

Hypertension CANADA

Key Points

Pamela's calculated risk of CVD death over next ten years is 2-3%. This is the same 2% risk that would be predicted in a 65-y-old female, non-smoker, with a systolic BP of 130 mmHg, and a TC/HDL-C ratio of 3.



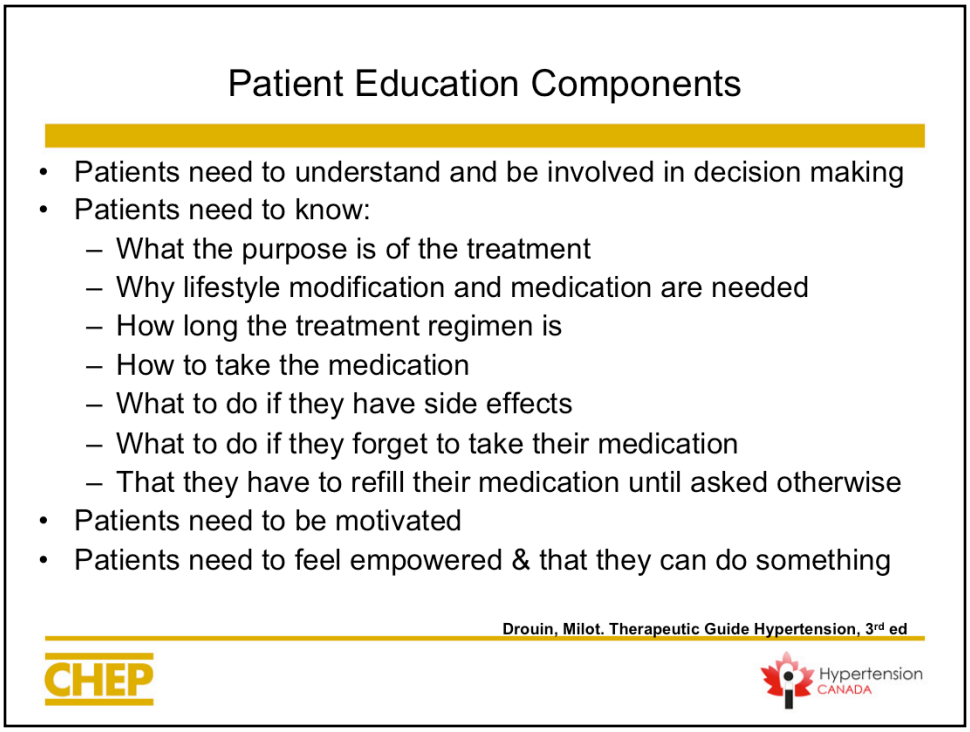
Key Points

The CHECK-UP study, included 3,053 patients with dyslipidemia; 2,631 completed the full 12-month follow-up, including 1,352 (51%) who did not have previously diagnosed hypertension, and 1,279 (49%) who had diagnosed hypertension and were on medication at entry into the study.

The use of a risk profile was associated with an increased likelihood of starting therapy (OR = 1.78, 95% CI 1.06-3.00) or modifying therapy (OR = 1.40, 95% CI 1.03-1.91). Patients who received risk counselling experienced a greater drop in blood pressure vs. those who received treatment as usual. Ongoing coronary risk assessment was associated with more appropriate blood pressure management.

Reference

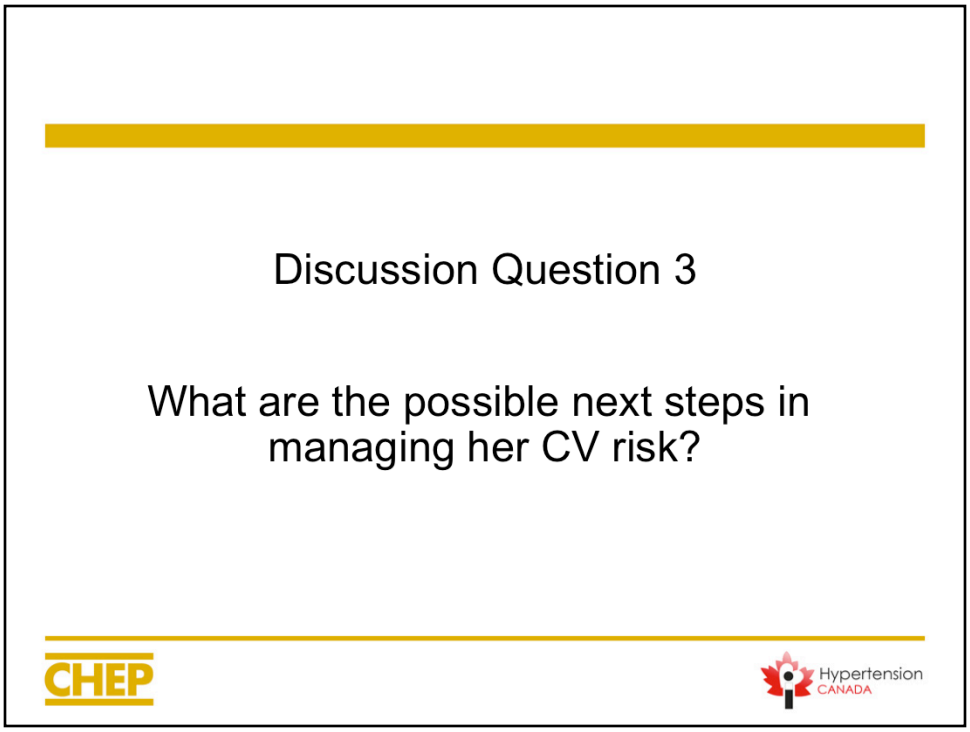
1. Grover et al. Discussing Coronary Risk with Patients to Improve Blood Pressure Treatment Secondary Results from the CHECK-UP: Study A Randomized Controlled Trial. *J Gen Intern Med* 2009;24:33-9.



Key Points

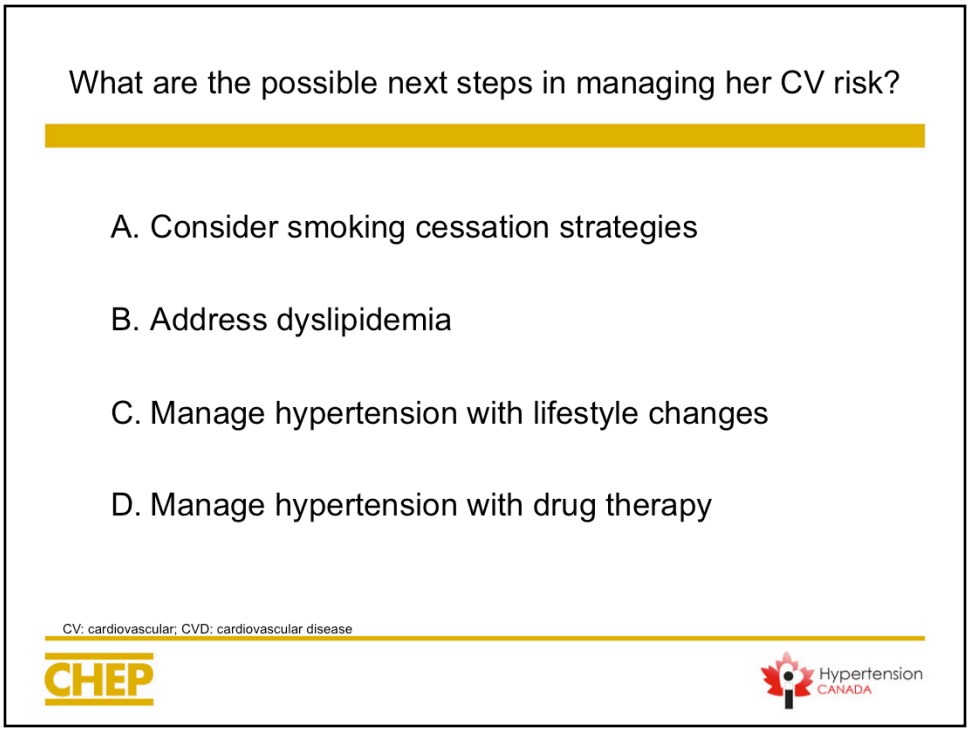
Recommended components of patient education are shown in the slide. It is critical that patients understand and are involved in decision making regarding management of cardiovascular risk. Patients should be made aware of the purpose of the treatment, lifestyle modifications, treatment duration, possible side effects, actions to take in the event of a missed dose, and the importance of refilling their medication.

It is also important that patients are adequately motivated and empowered to participate in their treatment.



Notes

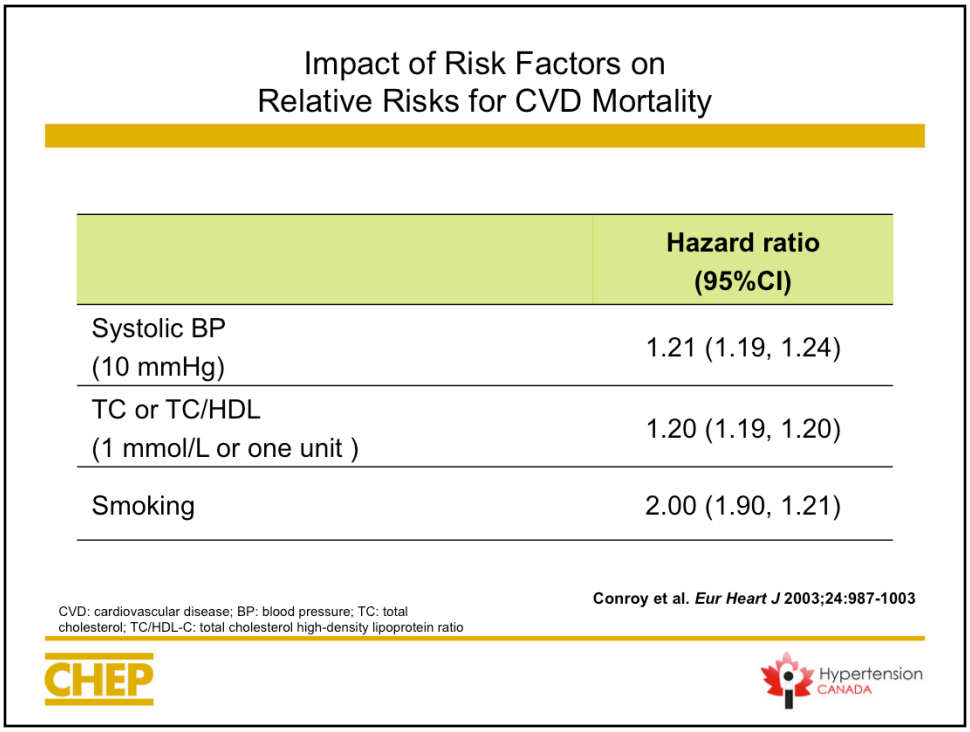
Reminder: Allow the group to discuss their possible answers and the rationale behind them before moving on to review feedback from the case authors.



Notes

Discuss the question with the group.

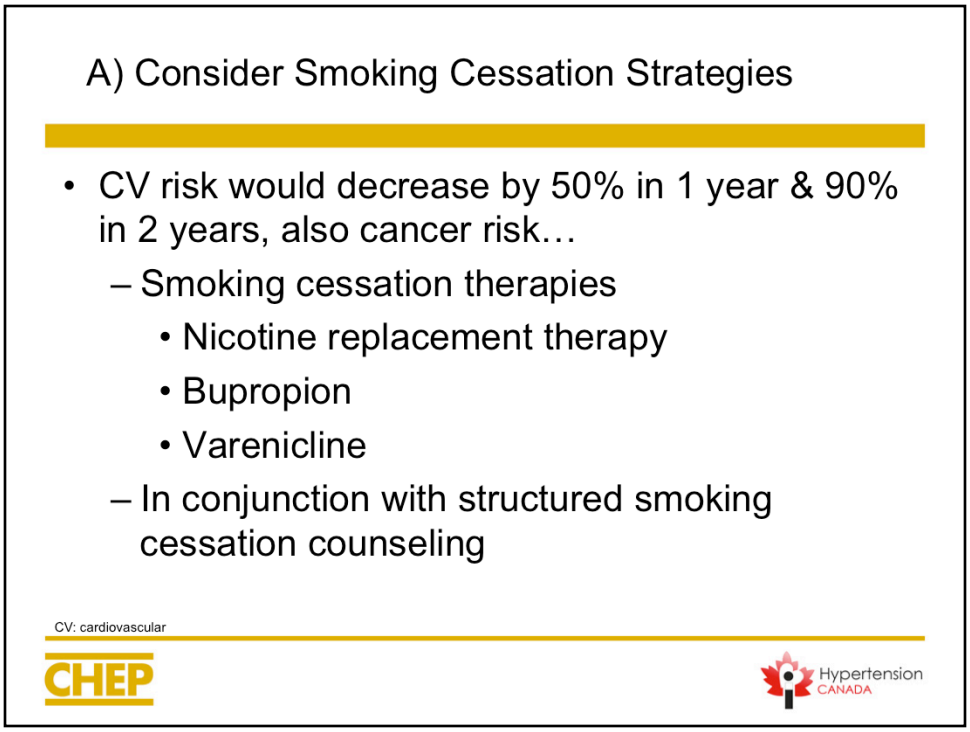
Allow the group to discuss possible answers and the rationale behind them before moving on to review feedback from the case authors.



Key Points

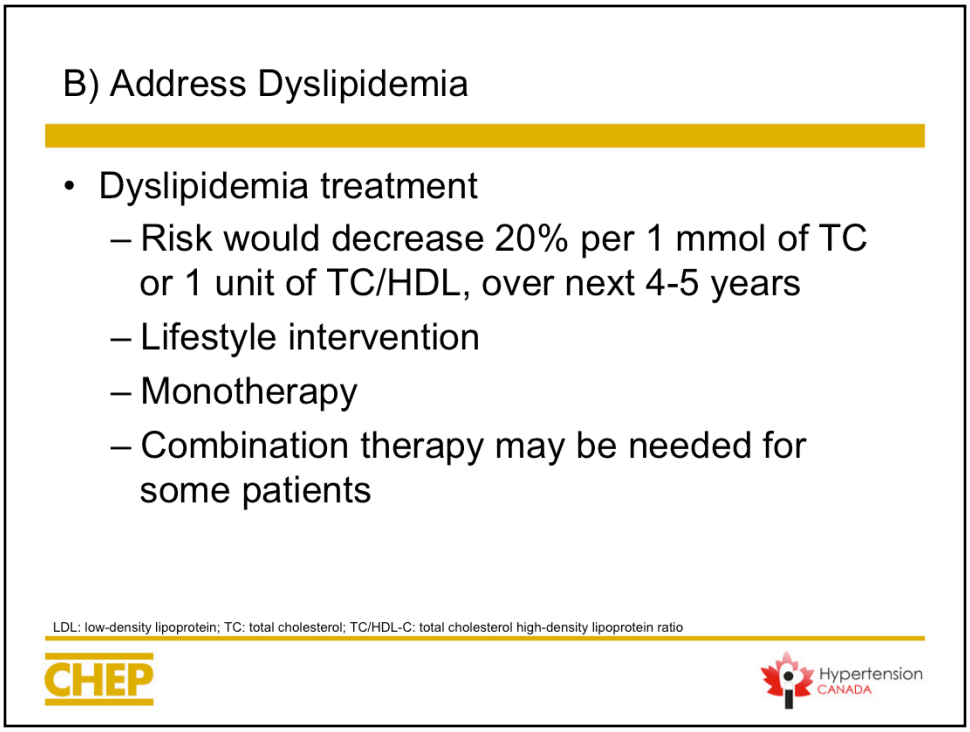
Based on an analysis of the entire SCORE database, it was found that CV risk factor are associated with the same relative risk in countries with both low CVD prevalence (e.g., Spain, Belgium, etc.) and countries with high CVD prevalence (e.g., Finland, Russia, etc.). The CV impact of smoking, elevated BP, or dyslipidemia was found to be relatively constant in all populations. Therefore, the net CV impact can be determined by the total prevalence of the different CV risk factors. From these constant effects, a basic formula for estimation of 10-year risk of fatal CVD could be established.

For each country, a national SCORE should be determined using national CVD mortality and prevalence of the basic CV risk factors. This slide shows the calculations of SCORE CANADA.



Key Points

Smoking cessation would have considerable impact on CV risk, being associated with a decrease of up to 50% after one year, as much as a 90% after 2 years. Smoking cessation has the added benefit of reducing cancer risk as well.



Key Points

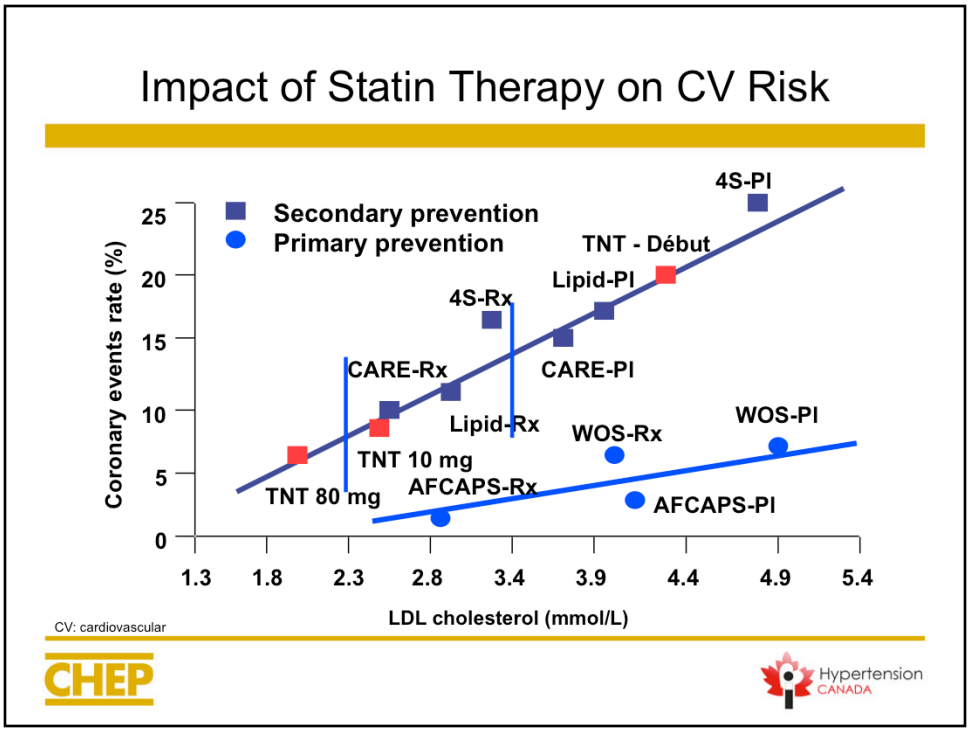
A 1 mmol/L decrease in total cholesterol has been associated with a 20% decrease in CV risk.

According to the 2009 Canadian Cardiovascular Society guidelines for the management of dyslipidemia, pharmacotherapy should be started immediately in high-risk individuals, concomitant with health behaviour interventions. The primary target of therapy is to achieve an LDL-C of <2.0 mmol/L, an apoB of <0.8 g/L or a 50% reduction in LDL-C from baseline values. The majority of patients will be able to achieve target LDL-C levels on statin monotherapy; however, a significant minority of patients may require combination therapy with an agent that inhibits cholesterol absorption (ezetimibe) or bile acid reabsorption (cholestyramine, colestipol), or the concomitant use of niacin. Some interventions may be lifelong, particularly lifestyle modifications, underscoring the importance of precision in stratifying risk.

Also of potential interest are the clinical difference between CCS and European recommendations as they are based on the same data.

References

1. Genest J, et al. 2009 Canadian Cardiovascular Society/Canadian guidelines for the diagnosis and treatment of dyslipidemia and prevention of cardiovascular disease in the adult – 2009 recommendations. *Can J Cardiol* 2009;25:567-579.



Key Points

Shown in the figure above are various statin trials that have contributed to the evidence-base for statin treatment. The absolute effect of cholesterol lowering in symptomatic and asymptomatic patients is striking. The NNTs for primary and secondary prevention are very different.

Please note that most of these trials had no target for LDL reduction, but rather a fixed dose regimen. Most LDL recommendations are based on better CV outcomes at obtained LDL levels.

C) Manage Hypertension with Lifestyle Changes

Lifestyle therapies in adults with hypertension

Intervention	Target
Reduce foods with added sodium	<2000 mg/day
Weight loss	BMI <25 kg/m²
Alcohol restriction	≤2 drinks/day
Physical activity	30-60 minutes 4-7 days/week
Dietary patterns	DASH diet
Smoking cessation	Smoke free environment
Waist circumference	Men <102 cm Women <88 cm

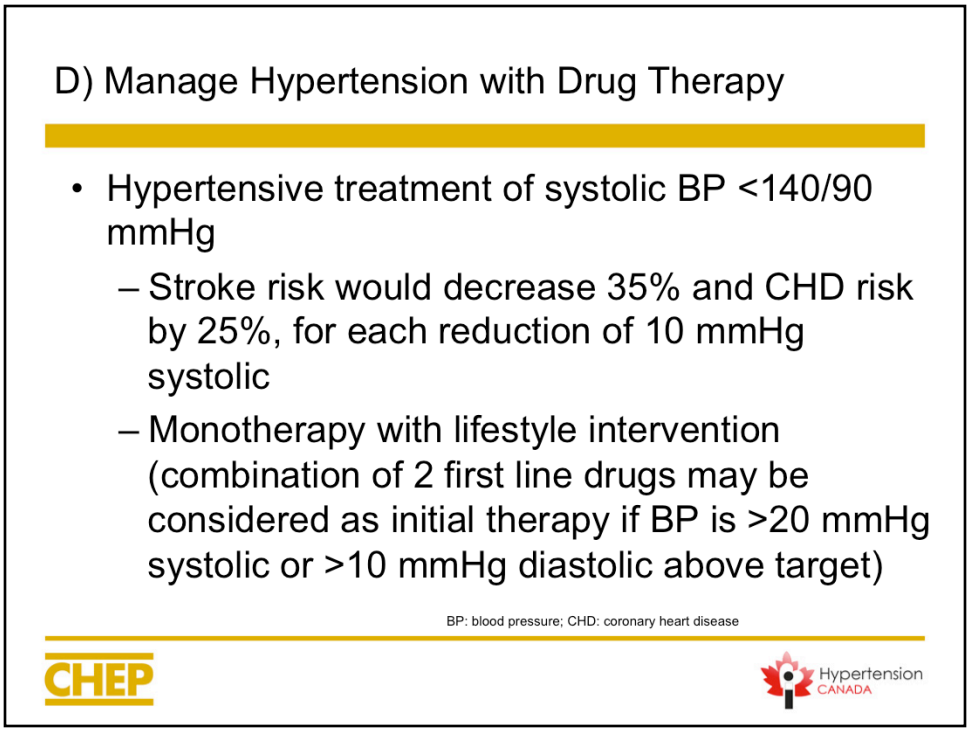
CHEP

BMI: body-mass index; DASH: Dietary Approaches to Stop Hypertension

Hypertension CANADA

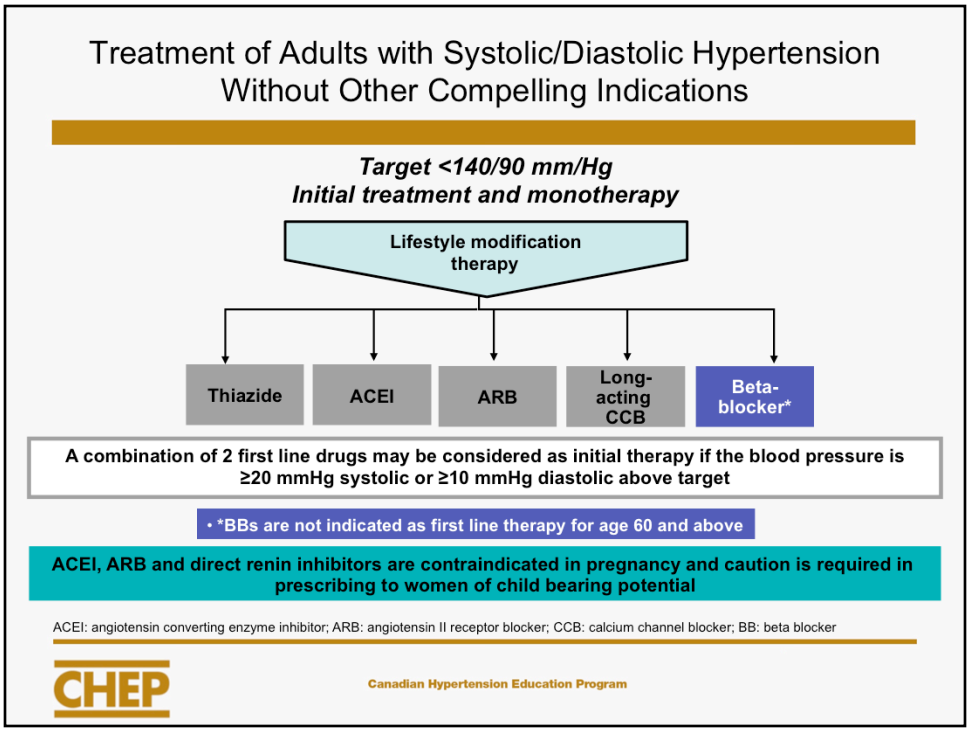
Key Points

Lifestyle interventions can have a substantial impact on blood pressure. This slide shows recommendations and targets for specific interventions.



Key Points

In hypertension without other compelling indications, CHEP recommends a target of <140/90 mmHg. Recommendations for lifestyle interventions and pharmacotherapy are outlined in the slides that follow.

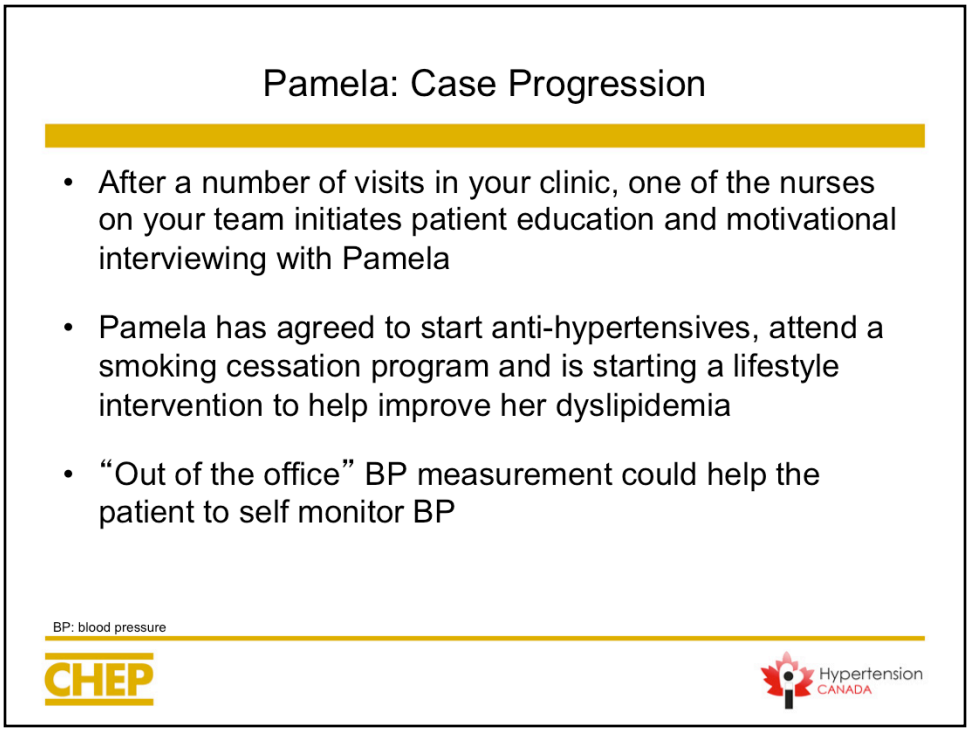


Key Points

This algorithm shows the CHEP 2012 recommendations for individuals with systolic/diastolic hypertension without other compelling indications.

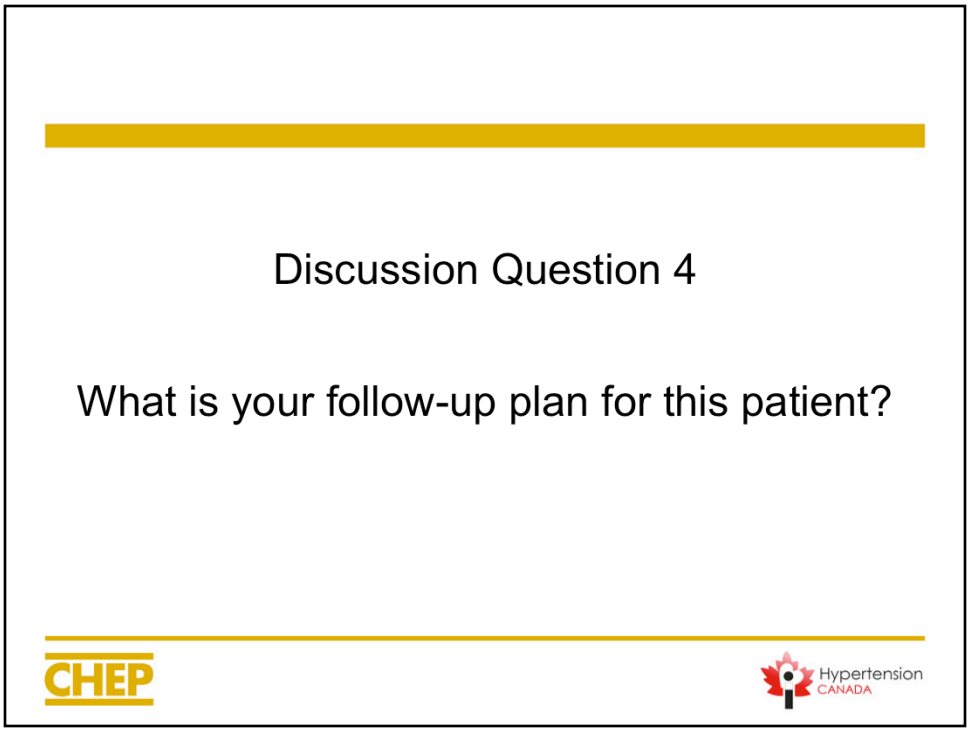
First line therapy choices include thiazide diuretics, beta-blockers, ACE-inhibitors, ARBs, or long-acting calcium channel blockers (ASA and statins can be considered in select patients). First-line combination therapy may be considered if SBP is >20 mmHg or DBP is >10 mmHg above target.

Beta-blockers are not recommended as initial therapy in those >60 years of age. Hypokalemia should be avoided by using potassium-sparing agents in those who are prescribed diuretics as monotherapy. ACE-inhibitors are not recommended in black patients as monotherapy. ACE-inhibitors, ARBs, and direct renin inhibitors are potential teratogens, and caution is therefore required if prescribing to women of child bearing potential. The combination of an ACE-inhibitor with an ARB is not recommended.



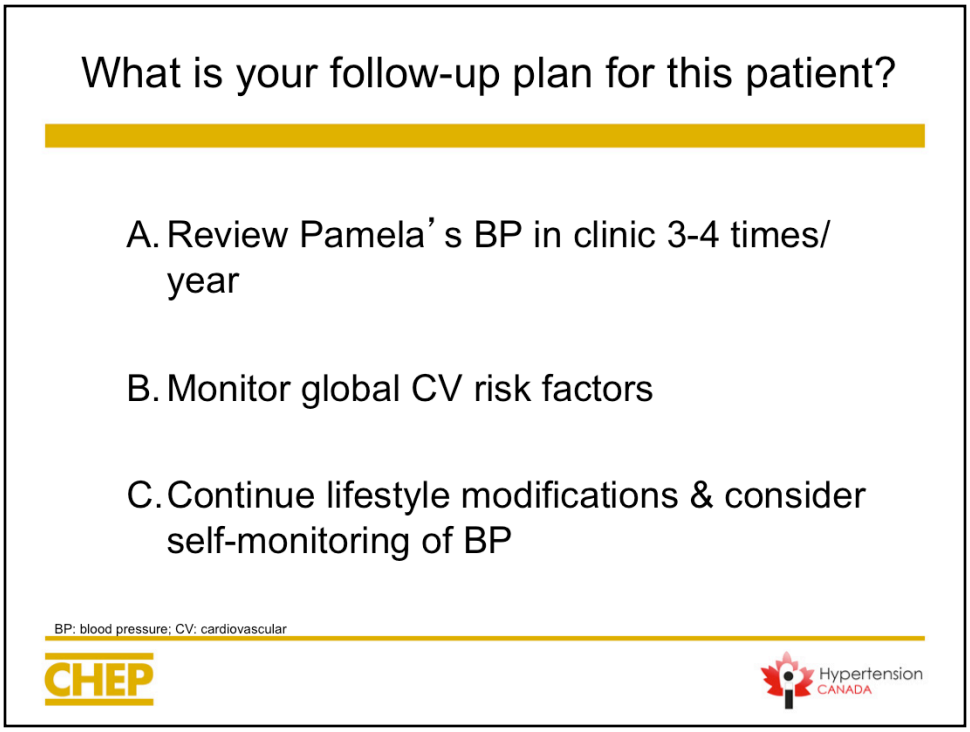
Notes

Review the progress of Pamela's case with the group.



Notes

Reminder: Allow the group to discuss their possible answers and the rationale behind them before moving on to review feedback from the case authors.



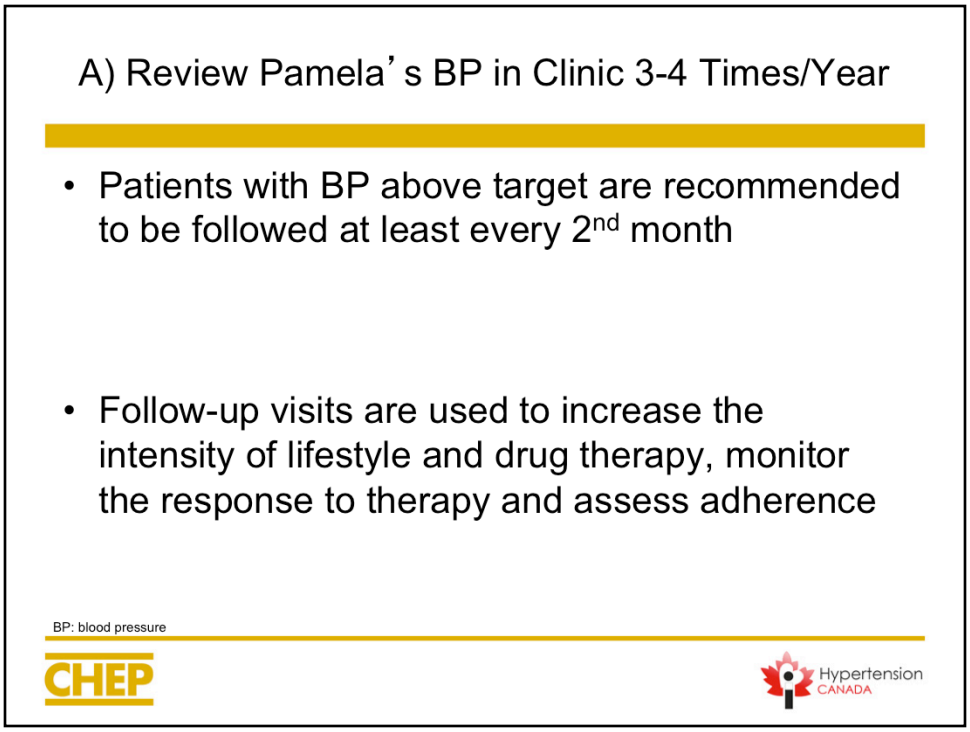
Notes

Discuss the question with the group.

Allow the group to discuss possible answers and the rationale behind them before moving on to review feedback from the case authors.

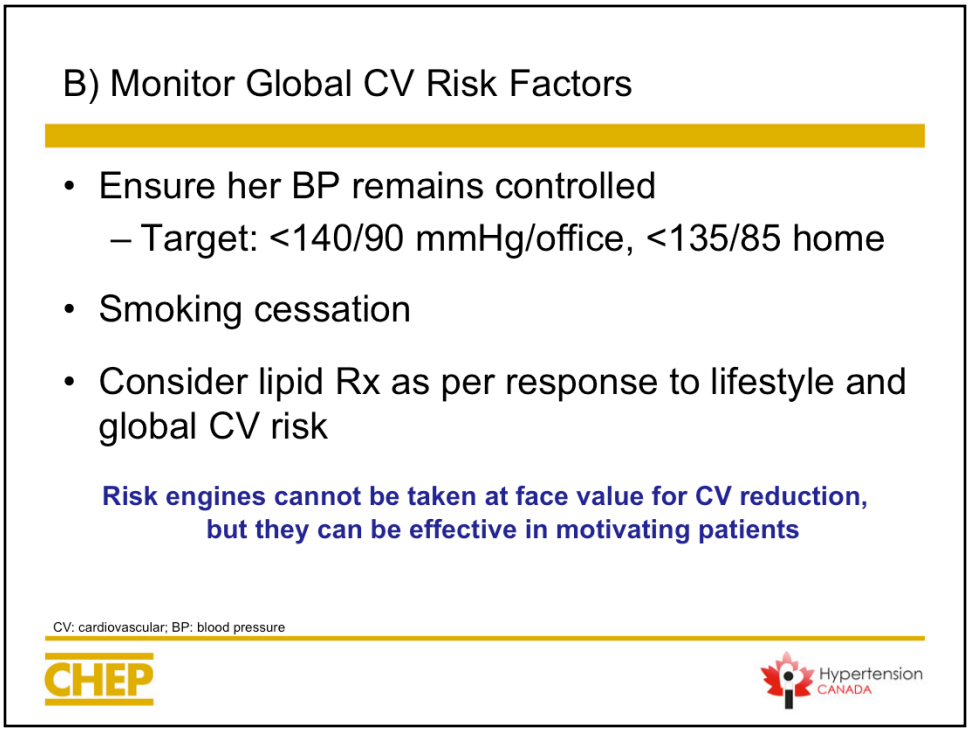
There is not necessarily one right answer; the goal of the exercise is to have an open discussion.

When you have discussed each possible answer, proceed to the following slides to see the feedback provided by the case authors.



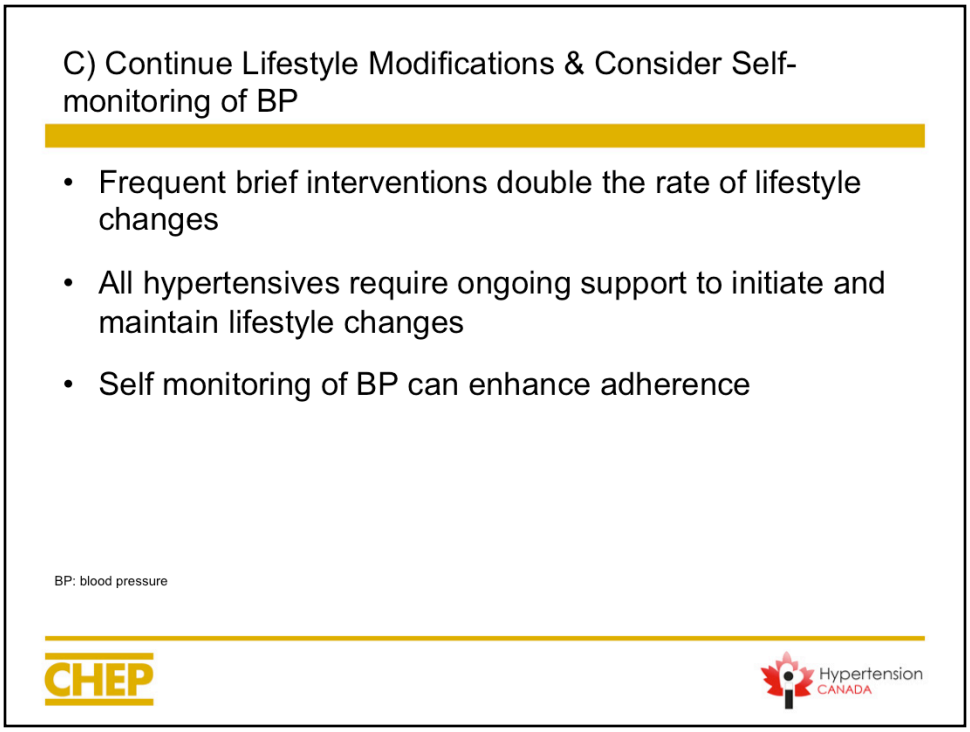
Notes

Review the discussion points on the slide, and the need for regular follow-up in patients with BP levels above target. Discuss the role of the multidisciplinary team in improving adherence.



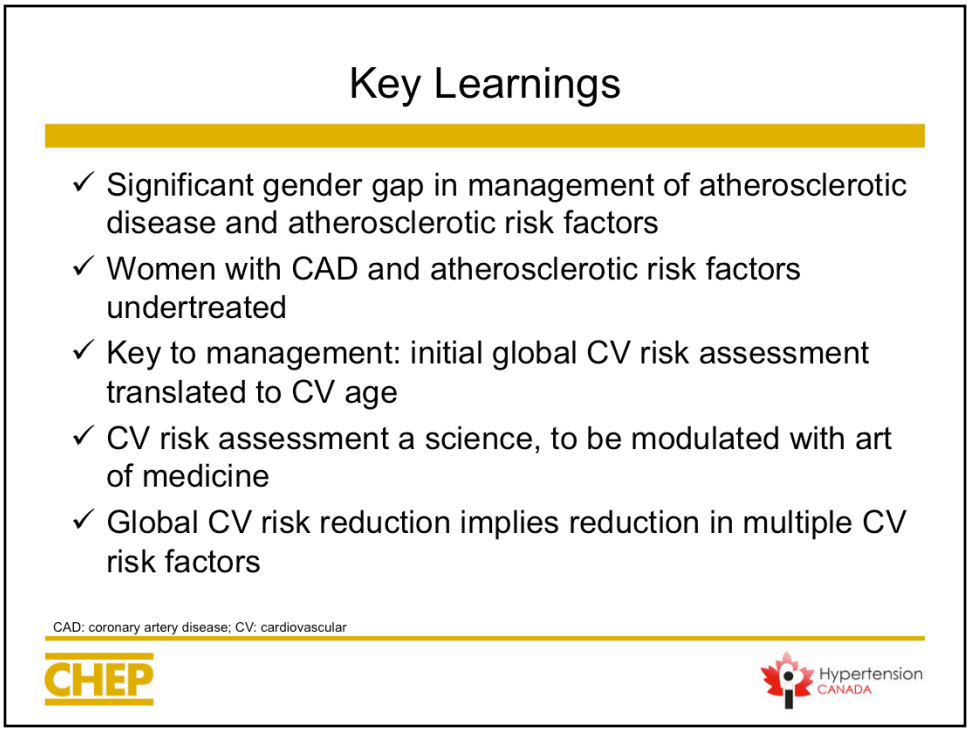
Notes

Review the discussion points on the slide. Stress the importance of regular monitoring of CV risk factors. It is important to make sure that BP control is not only achieved but also maintained. Smoking cessation and lipid control are also important. Note that risk assessment tools should not be used to monitor CV risk reduction, but they can be an important motivating factor.



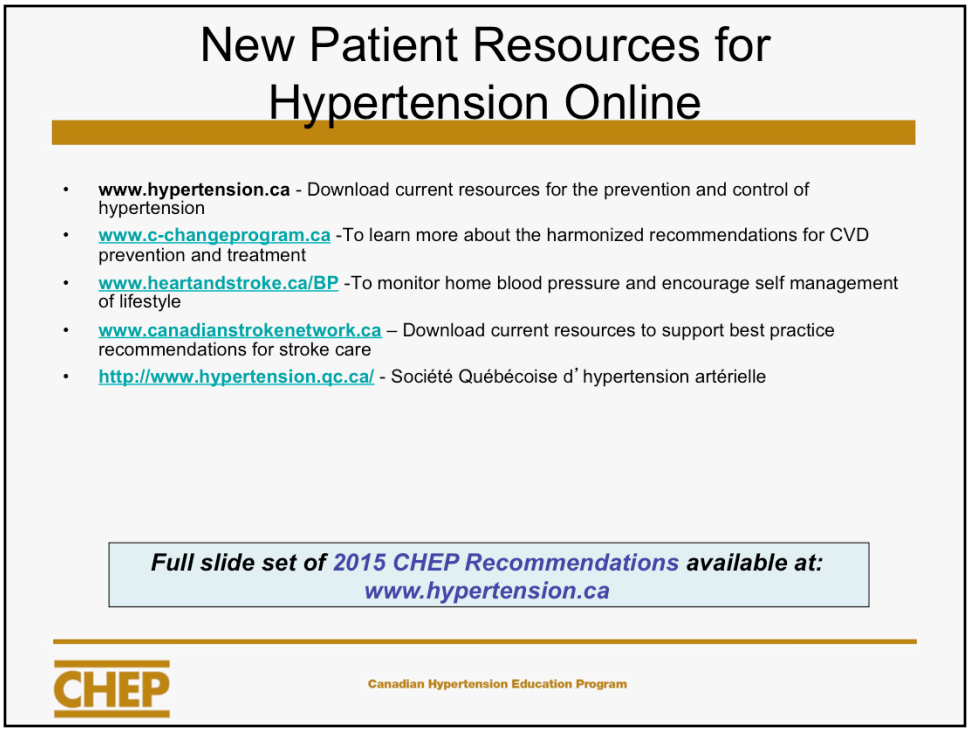
Notes

Review the discussion points regarding the importance of lifestyle modifications in improving outcomes.



Notes

Review the key points discussed throughout the meeting.



Notes

This slide shows some websites that clinicians may find useful for their patients with hypertension.

Refer the group to the website for the full CHEP Recommendations and more information.

Event wrap-up & acknowledgments

- Thank the participants for sharing their expertise and opinions, and acknowledge CHEP for developing the program content