Peripheral Arterial Disease: 10 Quick Pharmacotherapy Tips

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Presenter Disclosure

- I have no current or past relationships with commercial entities

- I have received a speaker’s fee from CSHP for this learning activity

Commercial Support Disclosure

- This program has received no financial or in-kind support from any commercial or other organization

Learning objectives

- Describe the symptoms associated with peripheral arterial disease
- List evidence-based pharmacotherapy options for management of peripheral arterial disease

Abbreviations

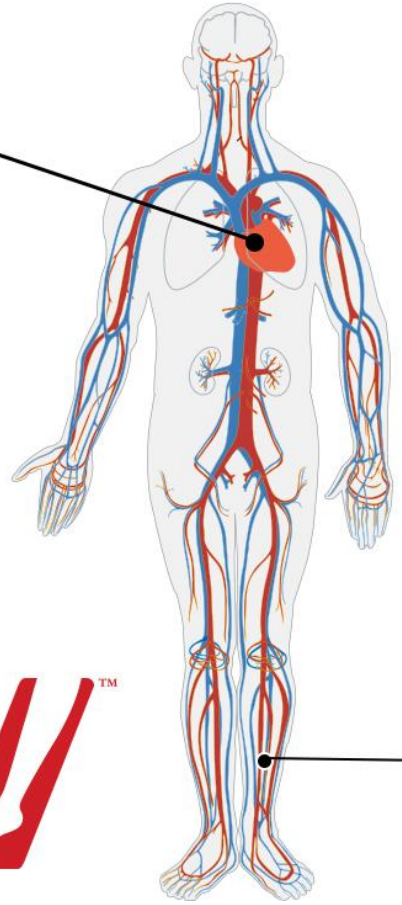
- IPE = Icosapent ethyl
- MACE = Major adverse cardiovascular event
- MALE = Major adverse limb event
- PAD = Peripheral arterial disease
- SGLT2 inhibitor = Sodium-glucose cotransporter-2 inhibitor
- TG = Triglycerides
- VKA = Vitamin-K antagonist

Peripheral arterial disease

CAD

Coronary Artery Disease

- Most common heart disease
- Affects 8.8 million deaths worldwide
- In the U.S., up to 1/4 of middle-aged men and 1/3 of women are as risk of developing CAD in their lifetime
- According to the American Heart Association, CAD is the single leading cause of death in America today.



USA VASCULAR CENTERS™

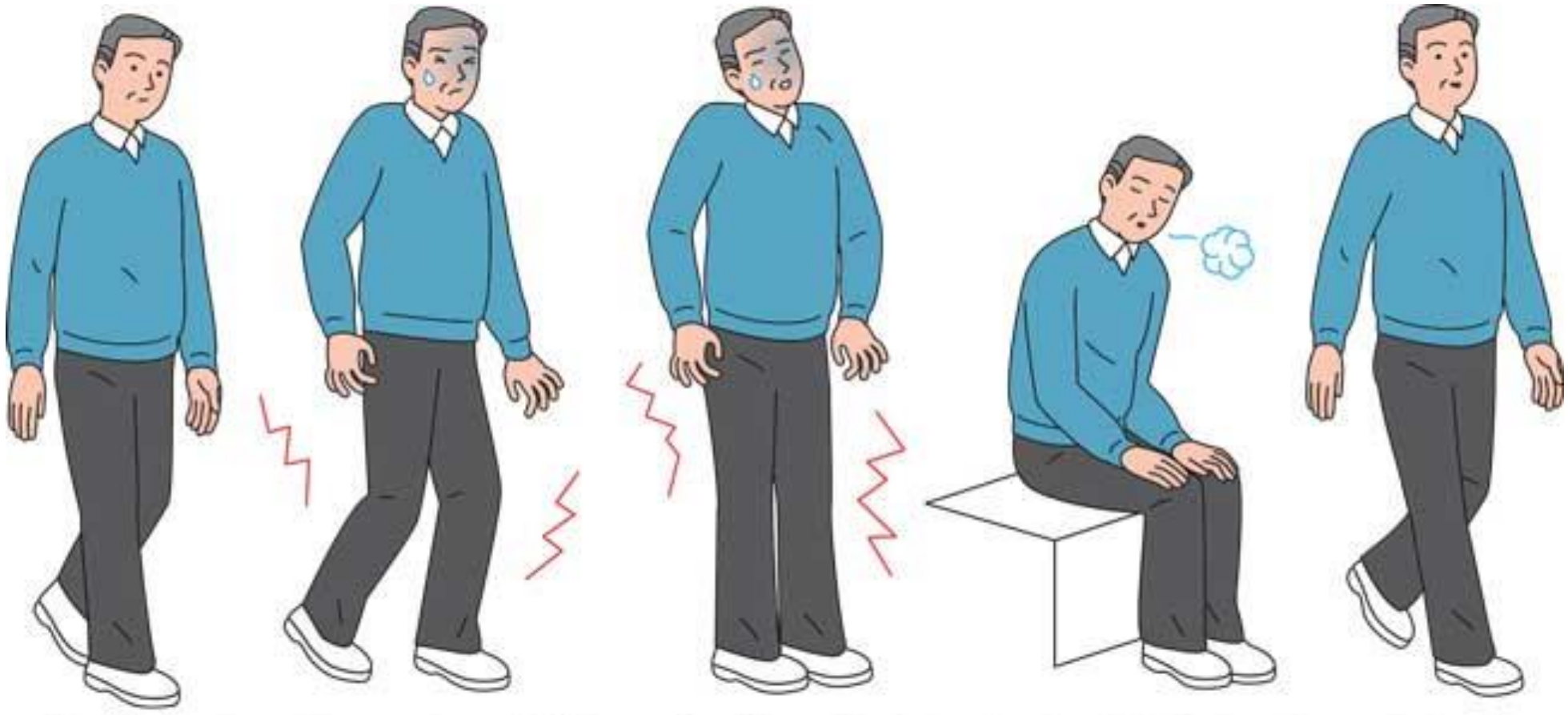
PAD

Peripheral Artery Disease

- Common circulatory problem
- Affects 202 million people worldwide
- Smoking increases the risk for PAD by 400% and brings on PAD symptoms almost 10 years earlier.
- The National Institutes of Health estimates that a person with PAD has a six to seven times higher risk of coronary artery disease

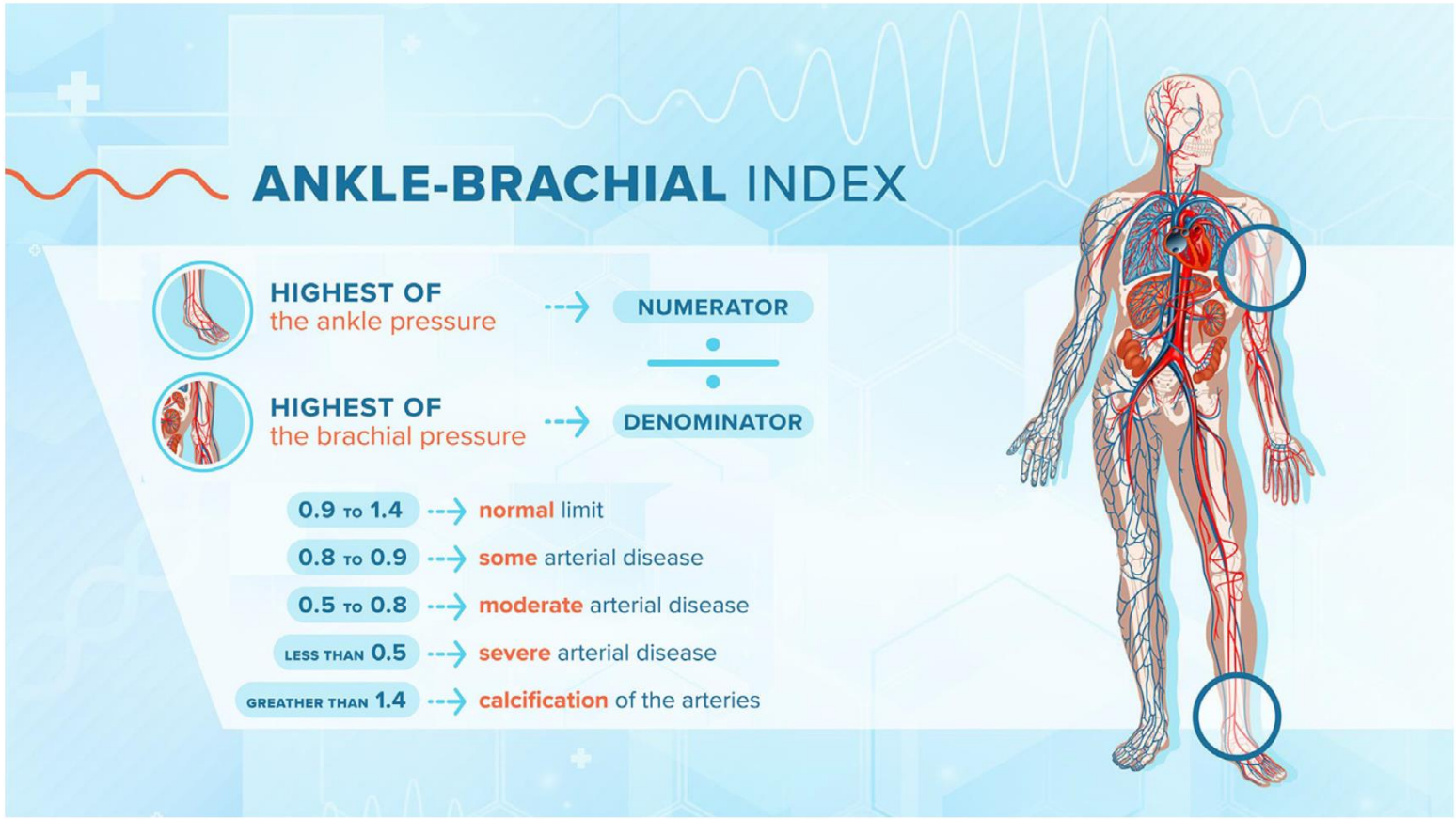
https://www.usavascularcenters.com/blog/heart-disease-vs-arterial-disease-whats-difference/

Peripheral arterial disease



https://www.sarh.org/centers-of-excellence/heart-institute/peripheral-arterial-disease/

Peripheral arterial disease



Quebec Society of Vascular Sciences – video ”How to Detect Peripheral Arterial Disease”

Peripheral arterial disease

Canadian Journal of Cardiology 38 (2022) 560–587

Society Guidelines

Canadian Cardiovascular Society 2022 Guidelines for Peripheral Arterial Disease

Primary Panel: Beth L. Abramson, MD (Co-Chair),[a] Mohammed Al-Omran, MD (Co-Chair),[a] Sonia S. Anand, MD (Co-Chair),[b] Zaina Albalawi, MD,[c] Thais Coutinho, MD,[d] Charles de Mestral, MDCM, PhD,[e] Luc Dubois, MD,[f] Heather L. Gill, MD,[g] Elisa Greco, MD,[a] Randolph Guzman, MD,[h] Christine Herman, MD,[i] Mohamad A. Hussain, MD, PhD,[j] Victor F. Huckell, MD,[k] Prasad Jetty, MD,[l] Eric Kaplovitch, MD,[m] Erin Karlstedt, MD,[n] Ahmed Kayssi, MD,[e] Thomas Lindsay, MDCM,[o] G.B John Mancini, MD,[k] Graham McClure, MD,[b] M. Sean McMurtry, MD, PhD,[p] Hassan Mir, MD,[q] Sudhir Nagpal, MD,[l] Patrice Nault, MD,[r] Thang Nguyen, MD,[h] Paul Petrasek, MD,[s] Luke Rannelli, MD,[c] Derek J. Roberts, MD, PhD,[t] Andre Roussin, MD,[u] Jacqueline Saw, MD,[v] Kajenny Srivaratharajah, MD,[b] James Stone, MD, PhD,[c] David Szalay, MD,[b] Darryl Wan, MD,[b]
Secondary Panel: Heather Cox, MD,[w] Subodh Verma, MD,[a] and Sean Virani, MD[k]

Canadian Cardiovascular Society

1. Promote smoking cessation

- Smoking cessation to prevent PAD, and to prevent MACE and MALE
  - Intensive counselling
  - Nicotine replacement therapy
  - Bupropion
  - Varenicline
  - *Nicotine-containing e-cigarettes*

2. If diabetic, add a SGLT-2 inhibitor

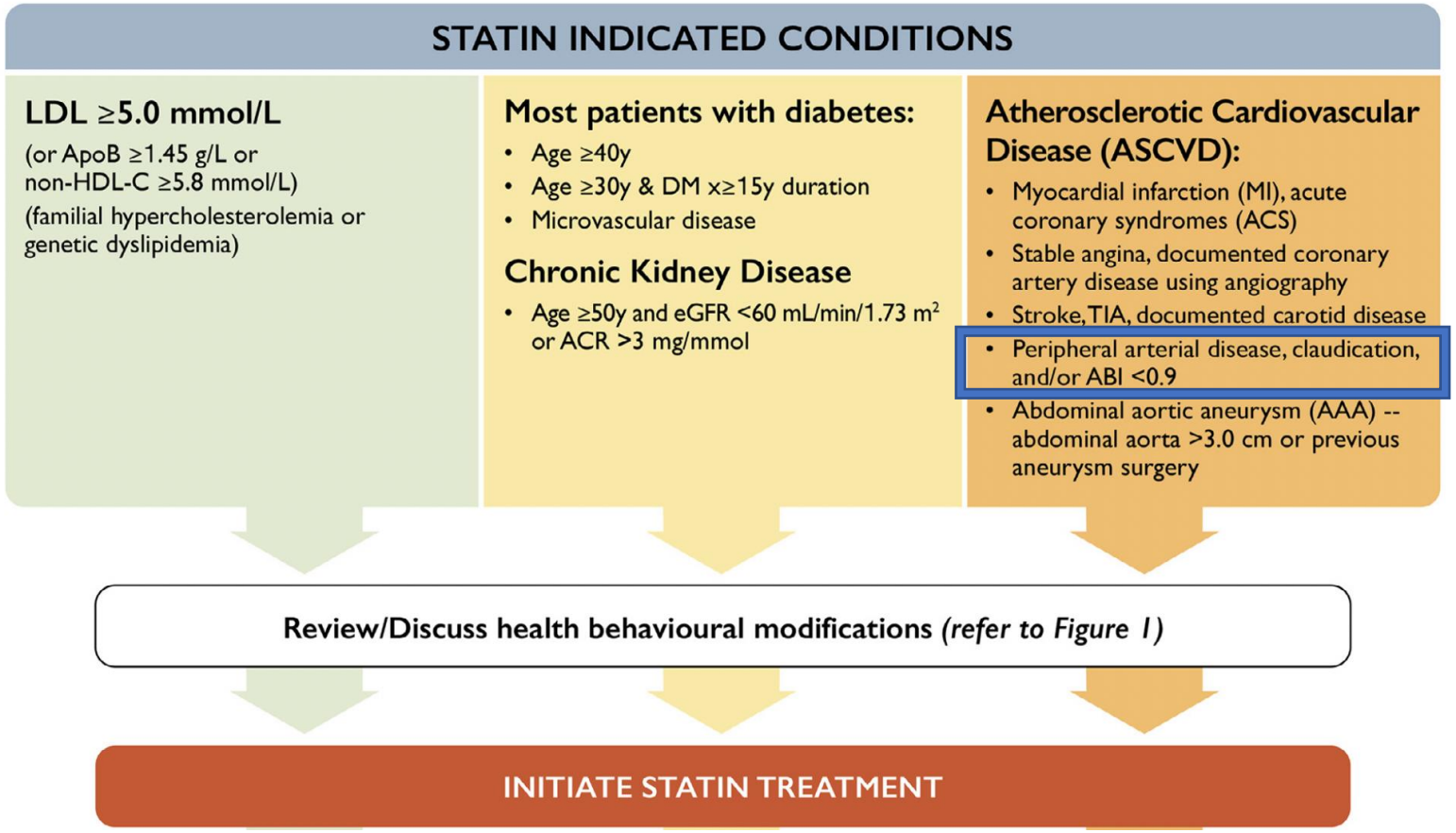
- If diabetic, add an SGLT-2 inhibitor to reduce MACE
  - Dapagliflozin
  - Empagliflozin
  - *Canagliflozin?*

*An approximately **2-fold increased** risk of lower limb amputations associated with canagliflozin use was observed in CANVAS and CANVAS-R (…) Before initiating canagliflozin, **consider factors that may increase the risk of amputation**, such as a history of prior amputation, **peripheral vascular disease** (…).*

Product monograph Invokana® Date of revision January 23, 2020

3. Add a maximally-tolerated dose of statin

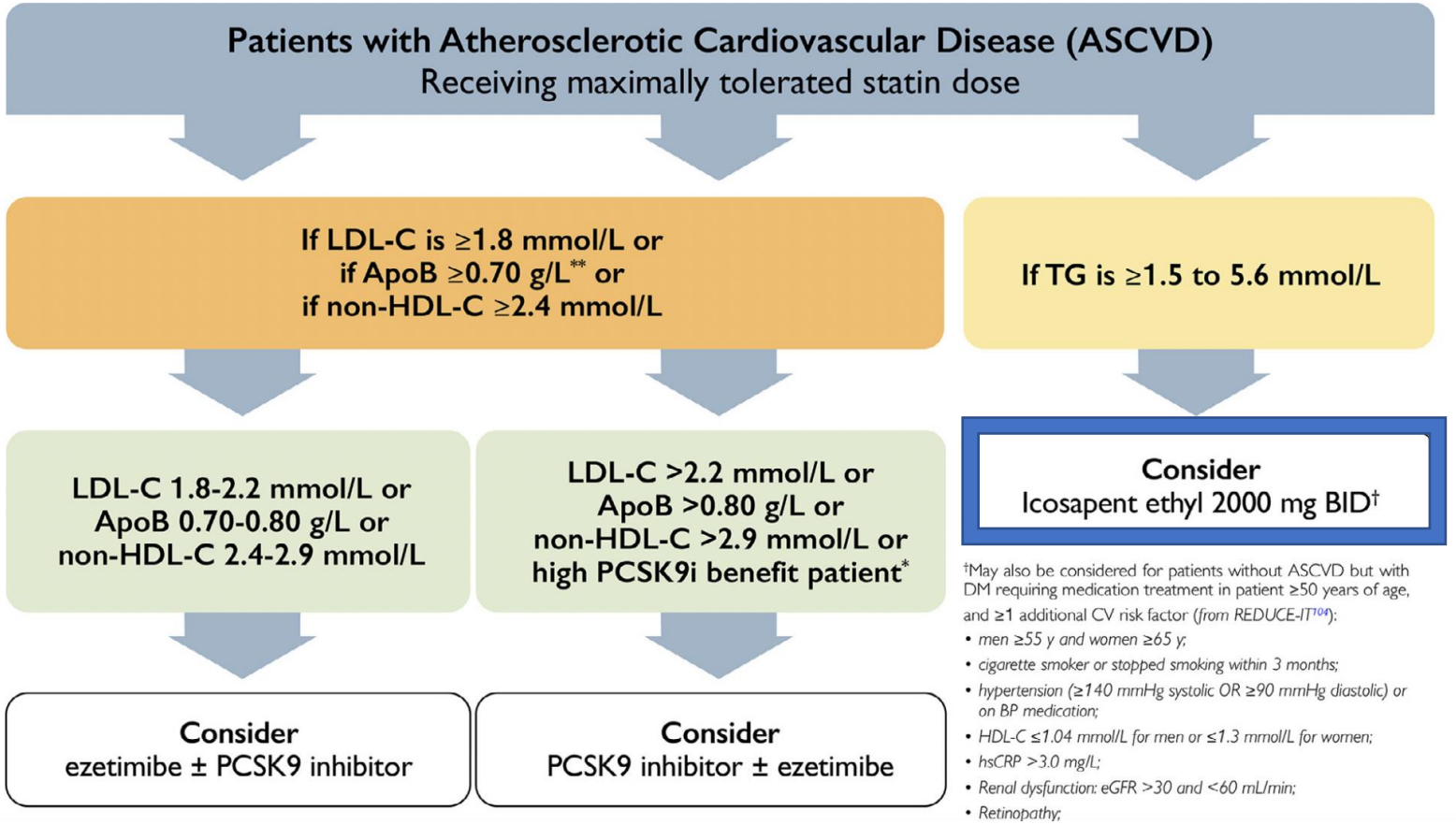
- Statin to reduce MACE and MALE



2021 CCS Guidelines for the Management of Dyslipidemia for the Prevention of Cardiovascular Disease in Adults

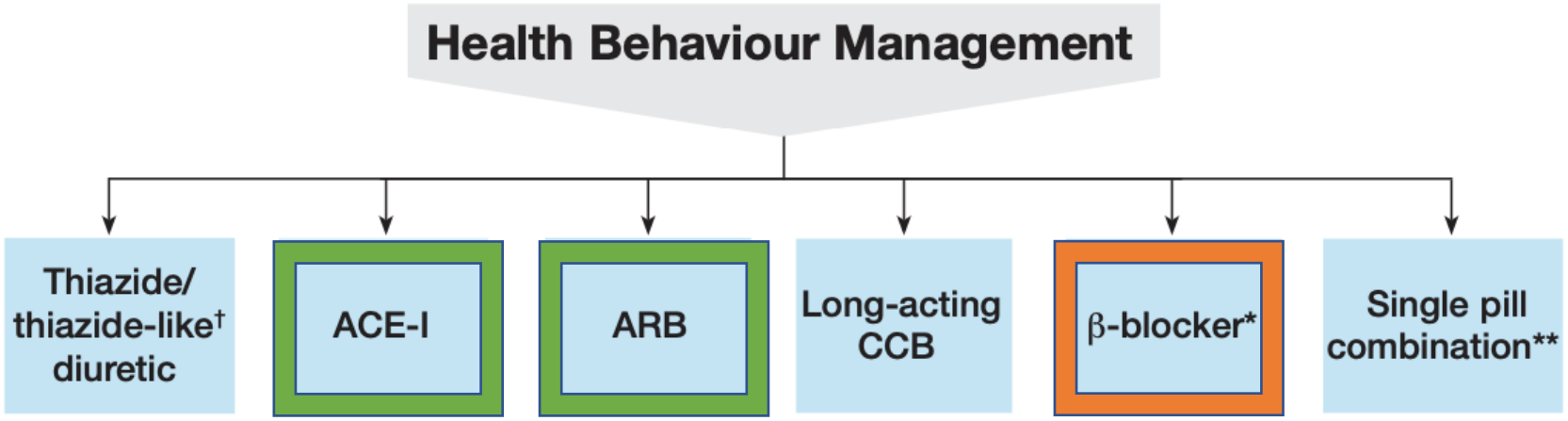
4. Consider IPE addition to statin

- IPE if TG 1.5-5.6 mmol/L on maximally tolerated statin



2021 CCS Guidelines for the Management of Dyslipidemia for the Prevention of Cardiovascular Disease in Adults

5. If hypertension, treat with ACEi or ARB



† Long-acting diuretics like indapamide and chlorthalidone are preferred over shorter acting diuretics like hydrochlorothiazide.

* β-blockers are not indicated as first-line therapy for age 60 and above.

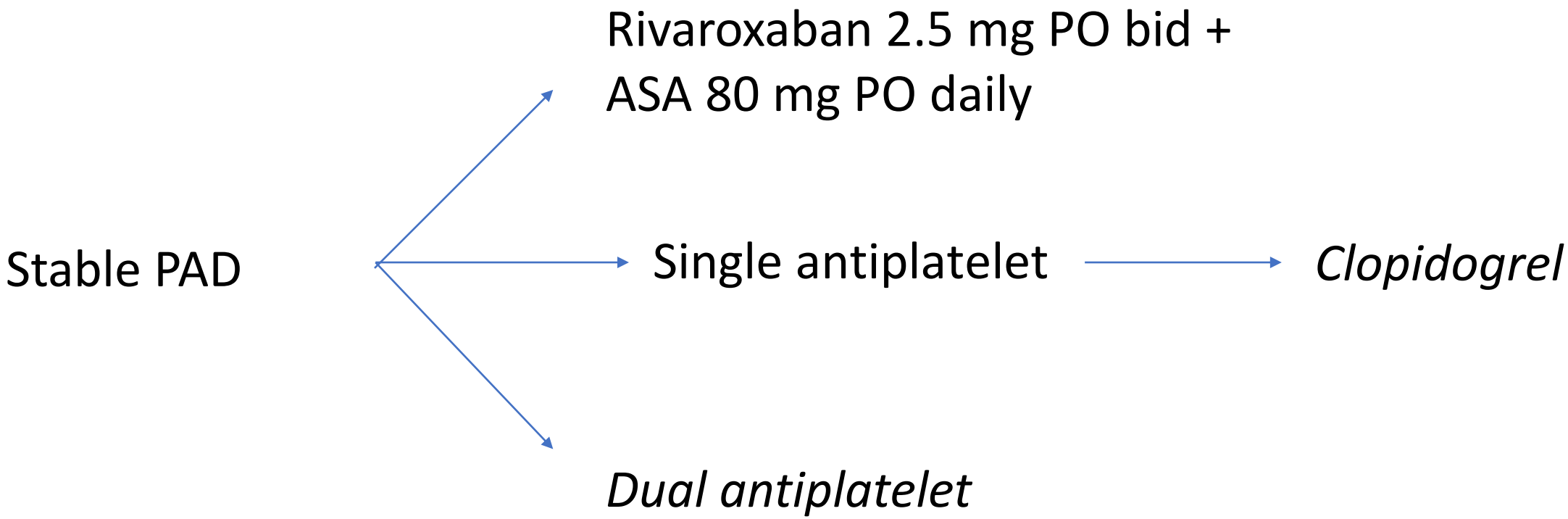
**** Recommended SPC choices are those in which an ACE-I is combined with a CCB, an ARB with a CCB, or a CE-I or ARB with a diuretic**

Hypertension Canada's 2020 Comprehensive Guidelines for the Prevention, Diagnosis, Risk Assessment, and Treatment of Hypertension in Adults and Children

6. If asymptomatic PAD, no antithrombotic

- No routine antiplatelet or anticoagulant for patients with isolated asymptomatic lower extremity PAD

7. If symptomatic PAD, give antithrombotic (part 1)



8. If symptomatic PAD, give antithrombotic (part 2)

Rivaroxaban 2.5 mg PO bid + ASA +/- clopidogrel

Elective revascularization → *Dual antiplatelet*

VKA or single antiplatelet

9. If symptomatic PAD, give antithrombotic (part 3)

Urgent revascularization

- *Rivaroxaban 2.5 mg PO bid + ASA +/- clopidogrel*
- *Full-dose anticoagulation + antiplatelet*
- *Dual antiplatelet*

10. No medication for symptom management

- Supervised exercise programs
- Cilostazol
- ?Pentoxifylline

References

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