

Looking at lowering digoxin

1. Should lowering digoxin level be based on the existing digoxin level, creatinine clearance, body mass or age?

Question submitted by Dr. Peter Noble, Oshawa, Ontario

Lowering digoxin should be based on a combination of elements. The first question I would ask is: Does the patient need to be on digoxin? We currently have excellent rate-controlling agents and heart failure medications—remember that digoxin has no data indicating a reduction in mortality.

Digoxin level can only be interpreted if taken at least six hours after the last dose. A person's threshold for digoxin toxicity is based on body mass

and age into account). An important note about weight is that low body mass is associated with higher rates of toxicity.

Therefore, I think it is important not to only look at digoxin levels when considering toxicity, but to take into account comorbid conditions, kidney dysfunction, advanced age and other medications.

Answered by:

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Drug therapy for WCH?

2. Should patients with white coat hypertension receive antihypertensive therapy if they have very stressful lives (due to work, etc.) and are likely to have elevated BP on a frequent basis?

Question submitted by Dr. B. Bartlett, St. John, New Brunswick

Physical activity and the stresses of daily life can increase blood pressure (BP). These elevations in BP are better reflected in the level of daytime ambulatory blood pressure (ABP) than from at-home, self-BP monitoring. Thus, the first issue is to confirm a diagnosis of white coat hypertension by ABP monitoring conducted during a typical workday.

If the daytime average ABP reading is < 135/85 mmHg or the 24-hour average ABP reading is < 130/80 mmHg, the patient does have white coat hypertension. If the

patient also has no target organ damage and is otherwise at low risk for future cardiovascular events, then the patient would not require any antihypertensive agents.

Prognostic studies show that cardiovascular morbidity and stroke risk generally increase above this threshold. If the patient's BP is equal to or higher than these thresholds, you need to take into consideration target organ damage and the individual's cardiovascular risk to determine if the patient needs drug therapy.

Answered by:

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Analyzing microalbuminuria

3. *What is the significance and management of a 70-year-old male with hypertension, microalbuminuria of 700 mg/L and no diabetes?*

Question submitted by Dr. S. Goluboff, Saskatoon, Saskatchewan

A 'micro' albumin test of 700 mg/L is likely to indicate significant proteinuria. The protein should be quantified by a 24-hour urine test for protein. A serum and urine-creatinine test and a urinalysis should also be requested to screen for renal disease.

Answered by:

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Proteinuria represents renal target organ damage and is a substantial risk factor for future cardiovascular events. Currently, screening for microalbuminuria is not recommended in Canada in patients with hypertension who do not have diabetes. Angiotensin-converting enzyme inhibitors are indicated if there is evidence of chronic kidney disease.

PFOs and yearly Dopplers

4. With mild patent foramen ovale, are yearly Dopplers necessary or advised?

Question submitted by Dr. E.J. Franczak, Scarborough, Ontario

A patent *foramen ovale* (PFO) is of no clinical consequence in most patients and follow-up studies are not necessary.

Usually an incidental finding on an echocardiogram, PFOs are caused when a communication (*fossa ovalis*) between the right and left atria during fetal development allows oxygenated blood from the inferior *vena cava* to cross to the left side.

This defect is closed by a flap shortly after birth as the left-sided pressures rise above the right. This flap fuses closed in the majority of cases, but remains fuses

fuses closed in the majority of cases, but remains patent in approximately one-third of patients at autopsy. Transient increases in right atrial pressure may result in right-to-left shunting.

There is some interest in detecting PFOs in patients with cryptogenic stroke, as some advocate catheter closure of the PFO if there have been recurrent neurologic events in spite of anticoagulation. [Read](#)

Answered by:

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