

GPSA
GENERAL PRACTICE SUPERVISION AUSTRALIA

# Hypertension

Hypertension is an important and treatable independent risk factor for AMI, CKD, stroke and premature death. It is very common in the Australian population, with a prevalence of about 35 per cent. Hypertension accounts for about 5 per cent of all problems seen in Australian general practice, and is one of the most common problems managed by GP registrars. Managing hypertension in the context of CV risk factor assessment will be an unfamiliar area for most registrars, and supervisors can help them develop a practical and evidence-based approach.

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| **TEACHING AND LEARNING AREAS** | | • Measuring blood pressure correctly<br>• Diagnosing hypertension and grading severity based on clinic readings or ABPM readings<br>• Investigation– secondary causes, co-morbidities, end-organ effects<br>• Calculating absolute CV risk<br>• Non-pharmacological treatment<br>• Medications, including indication, choice of agent, side effects<br>• Indications and pathways for referral<br>• Challenges in the elderly and younger patients, pregnancy and difficult to control BP |
| **PRE- SESSION ACTIVITIES** | | • Read the 2019 Australian Prescriber article Blood pressure: at what level is treatment worthwhile?<br>• Read the Therapeutic Guidelines chapter on hypertension |
| **TEACHING TIPS AND TRAPS** | | • Have a low threshold for monitoring BP outside the clinic (ABPM, home monitoring)<br>• Add a new medication before increasing to the maximum dose of the existing medication<br>• Beware combination agents unless the patient is stable<br>• Consider common causes for difficult to manage BP – adherence, alcohol<br>• Don't commence therapy for hypertension without first assessing the absolute risk of a cardiovascular event - Choosing Wisely Australia recommendation<br>• Consider investigating patients with newly diagnosed hypertension for primary aldosteronism<br>• Taking antihypertensives at bedtime rather than the morning significantly reduces CV risk<br>• There is strong evidence for treating hypertension in fitter older adults (aim for a BP <140mmHg), but in frail or multimorbid elderly patients medication may be harmful<br>• The biggest risk for falls is a postural drop - any change in BP therapy in older patients should be followed up with sitting/standing BP |
| **RESOURCES** | **Read** | • Guideline for the diagnosis and management of hypertension in adults (2016)<br>• 2016 MJA article Guideline for the diagnosis and management of hypertension in adults<br>• The RACGP Red Book - hypertension<br>• 2013 AFP article Hypertension: the difficult decisions |
| | **Listen** | • 2018 MJA podcast Hypertension |
| **FOLLOW UP/ EXTENSION ACTIVITIES** | | • Registrar to undertake the Clinical Reasoning Challenge and discuss<br>• Registrar to undertake the NPS MedicineWise case study Blood Pressure: measure, manage, monitor |



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## Clinical Reasoning Challenge

Graham is a 49-year-old electrician who attends your practice occasionally for minor medical problems. He has no significant past medical history, takes no medicines, has no known allergies, but is a regular smoker of about 20 cigarettes per day. He drinks a couple of beers most nights and more on the weekend.

Graham recently saw another GP for a URTI and BP was recorded as 162/93 at that visit. He was asked to follow it up with you. BP today is 154/91, and readings from the past 12 months are similar.

QUESTION 1. Graham denies any current symptoms on system review. What other key features should you seek on history? List, in note form only, FIVE other features you should ask about.

1 _____

2 _____

3 _____

4 _____

5 _____

QUESTION 2. On the basis of Graham's blood pressure readings, you make a diagnosis of hypertension. Physical examination is essentially normal, apart from a weight of 105kg and WC of 102cm. Urine dipstick is normal. He has had no recent blood tests or other investigations.

What are the most appropriate investigations to perform at this point? List, in note form only, SEVEN investigations you would request.

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

QUESTION 3. Graham returns for review of investigation results and his absolute CV risk is calculated at 12 per cent. What are the main management areas you would address with Graham this point? List, in note form only, FOUR management areas.

1 _____

2 _____

3 _____

4 _____



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## ANSWERS

QUESTION 1
Graham denies any current symptoms on system review. What other key features should you seek on history?

- Recent stress
- Salt intake
- Exercise
- Weight gain
- Family history

QUESTION 2
On the basis of Graham's blood pressure readings, you make a diagnosis of hypertension. Physical examination is essentially normal, apart from a weight of 105kg and WC of 102cm. Urine dipstick is normal. He has had no recent blood tests or other investigations. What are the most appropriate investigations to perform at this point?

- FBC
- EUC
- LFT (heavy alcohol use)
- Fasting BSL/HbA1c
- Lipids
- Urine ACR
- ECG

QUESTION 3
Graham returns for review of investigation results and his absolute CV risk is calculated at 12 per cent. What are the management areas you would address with Graham this point?

- Monitoring BP (home or clinic)
- Weight loss/exercise/diet
- Smoking cessation
- Alcohol reduction
- Trial of conservative management for three months


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