## Laboratory investigations



### Initial tests

Hemoglobin and hematocrit

Serum creatinine with estimated creatinine clearance (Cockroft-Gault formula) or glomerular filtration rate (Modification of Diet in Renal Disease formula)

Serum sodium, potassium and calcium

Fasting glucose

Total cholesterol, LDL-cholesterol, HDL-cholesterol and triglycerides

Serum uric acid

Urinalysis (complemented by microalbuminuria via dipstick test and microscopic examination)

Electrocardiogram

Chest X-ray

#### Recommended tests

Glucose tolerance test (if fasting plasma glucose higher than 100 mg/dL)

High sensitivity C reactive protein (in patients with metabolic syndrome)

Quantitative microalbuminuria/proteinuria (if positive dipstick tests)

Fundoscopy

**Echocardiography** 

Carotid ultrasound

Renal ultrasound

Home and 24 h ambulatory blood pressure monitoring

Ankle-brachial index

Pulse wave velocity measurement

#### Extended evaluation (domain of the specialist)

Further search for cerebral, cardiac, renal and vascular damage. Mandatory in complicated hypertension

Search for secondary hypertension when suggested by history, physical examination or routine tests: measurement of renin, aldosterone, corticosteroids, catecholamines in plasma and/or urine; angiographies; renal and adrenal ultrasound; computer-assisted tomography; magnetic resonance imaging

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## § 說明 §

- 1. 答對一題核發繼續教育積分一分。
- 2. 正確答案將於下期會訊中刊出。
- 3. 請於100年7月15日前傳真至秘書處。
- ( ) 1. Which is the aim of laboratory tests in hypertensive persons?
  - (a) provide evidence for additional risk factors.
  - (b) search for secondary hypertension.
  - (c) search for the absence or presence of organ damage.
  - (d) all of above.
- ( ) 2. Which is the routine laboratory tests recommended before initiating therapy for hypertension?
  - (a) ECG and CXR
  - (b) serum sodium, potassium, calcium, creatinine
  - (c) urinalysis
  - (d) all of above.
- ( ) 3. Renal parenchymal disease is the most common cause of secondary hypertension, which laboratory test is essential for renal parenchymal disease?
  - (a) serum creatinine concentration
  - (b) renal ultrasound
  - (c) urinalysis
  - (d) all of above

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(	)	4.	Which test helps to obtain a more valid assessment of global cardiovascular risk in hypertensive
			patients without evidence of target-organ damage after routine examination?
			(a) echocardiography
			(b) carotid ultrasound
			(c) renal ultrasound
			(d) a + b
(	)	5.	Which laboratory test has been reported to predict the incidence of cardiovascular events in
			several clinical settings, especially in patients with metabolic syndrome?
			(a) Serum sodium
			(b) Serum uric acid
			(c) High sensitivity C reactive protein

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(d) Hemoglobin and hematocrit

- 1. (d)
- 2. ( e )
- 3. (b)
- 4. ( c )
- 5. (d)

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