- If BP is ≥140/85 mmHg, consider patients for further evaluation of target-organ damage.
- Monitor BP regularly until the target level is achieved and maintained; then measure at least annually.

When to perform a routine blood test

- Measuring the full lipid profile can characterize the primary dyslipidaemia.
- The serum chemistry profile can confirm or exclude secondary dyslipidaemias.

Measuring the full lipid profile in the surgery

- Measurement of total cholesterol and HDL cholesterol is recommended for all adults >40 years who do not have a history or evidence of CVD or diabetes mellitus and who are not already receiving therapy for raised BP or lipids as part of opportunistic screening for CV risk in primary care.
- A nonfasting serum cholesterol test is routinely used for opportunistic assessment (total cholesterol and HDL cholesterol); if a more complete lipid profile is required (eg, triglyceride), fasting for between 9 and 12 hours before the serum cholesterol test is required.
- It is important to follow a standard protocol to ensure consistent collection of good samples (Table 2.6).
- For patients with established atherosclerotic disease, diabetes mellitus or single risk factor for CVD (eg, hypertension or smoking), a more detailed fasting serum lipid profile that includes the triglyceride level is required. Fasting is necessary because the triglyceride level can rise after a meal, before gradually falling back.
- Physical signs that suggest dyslipidaemia should also be confirmed by full lipoprotein analysis.
- For patients already on lipid-lowering therapy when CV risk is first estimated, use the total cholesterol value obtained before

Good clinical practice: measurement of serum cholesterol levels

- If a fasting blood test is required, the patient should be asked to fast and not to exercise in the 12 h before the test
- The patient should be seated for 5–10 min before the venous blood sample is drawn
- Take blood from an uncuffed arm
- Repeat the test after two months if the test results are abnormal
- Delay testing for 3 weeks following a minor illness
- Delay testing for 2–3 months following a major illness

Table 2.6

therapy started to predict the level of CV risk using the charts (p. 46–9). If such a value is unavailable, assume a pretreatment value of at least 6 mmol/L (230 mg/dL).

- The LDL cholesterol level in mmol/L is estimated from the total cholesterol and HDL cholesterol levels using the Friedewald formula:

$$\text{LDL} = \text{total cholesterol} - \text{HDL} - \left(\frac{\text{triglyceride}}{2.2}\right)$$

The formula is invalid if the triglyceride level is >4.5 mmol/L (400 mg/dL) or if familial dysbetalipoproteinaemia is present; it is a less reliable measure of LDL cholesterol in patients with diabetes mellitus. In such cases, specialist referral is necessary.

Total cholesterol

- 'Total cholesterol' is a measure of the total lipoprotein-cholesterol content in the serum at a given point in time.
- A high total cholesterol level is positively associated with increased CVD risk, stroke and coronary thrombosis. There is also a negative association between an increased total cholesterol level and increased CV morbidity and mortality.