Summary - GP appointment, POCT, and FBC

HbA1c: 7.5%
(58.5 mmol/mol)
= Diagnosis of diabetes

FBC: broadly normal, non-
anaemic, slightly raised
platelet and neutrophil
counts, probably due to foot
ulcer

Blood pressure 150/95
= High

Glycosuria
(~250 mg/dL)

Foot ulcer for past
month, does not heal

Fasting blood glucose test (FBG)

- Test sample: venous plasma is required for this test; blood should be collected in a
tube containing fluoride oxalate as an inhibitor of glycolysis.
- In whole blood (as opposed to plasma or serum), glycolysis will continue and will
reduce the glucose level thus affecting the test result so a plasma sample should be
made as soon as possible. EDTA used as an anticoagulant.
- The FBG test is taken using a blood sample obtained following a period of fasting of
at least eight hours.
- This fast is often started at midnight, with the blood taken in the morning of the day.
- A fasted glucose level of >7.0 mmol/L indicates diabetes.

Oral glucose tolerance test (OGTT)

- This is used less commonly, as it is not used to confirm a diagnosis of
 diabetes.
- OGTT is time-consuming, requires specifically trained staff and is less reproducible
than the fasting blood glucose test.
- The patient fasts from midnight, and then a baseline fasting blood glucose test is
taken the next day.
- The patient then consumes a drink containing 75g glucose
- 2 hours later their blood glucose is measured again.
- This test measures the function of the pancreas in managing blood glucose levels.
- In a person without diabetes glucose levels rise and fall quickly, as the body produces
insulin to lower blood glucose levels. In a person with diabetes, there will be a sharp
rise and then sustained high levels of glucose. The pancreas is unable to produce the
insulin required to lower the levels of glucose in the blood.
- A blood glucose level of >11.1 mmol/L taken two hours after the glucose drink
indicates diabetes.