

# PBSGL NHS Education for Scotland Centre for Health Science Old Perth Road Inverness IV2 3JH

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# **Biochemistry Results**

### **INTRODUCTION**

Abnormal biochemistry results are common in general practice. It can be difficult to determine the underlying cause and decide what further investigations are needed. The other issue is to decide which abnormalities are important and which require to be corrected.

This module includes discussion of some common abnormal results:

- hyperkalaemia and hypokalaemia
- · hypercalcaemia and hypocalcaemia
- abnormal liver function tests (LFTs)
- low testosterone
- · low magnesium will be briefly discussed.

This module will not cover the above topics in great detail. Instead the information given is thought to be the core information that clinicians "need to know". The topics were chosen by a group of clinicians who felt they would be of use to PBSGL groups.

Abnormal LFTs is a potentially large area to study. For this reason, this module looks at clarifying the diagnosis, rather than studying the causes in depth.

Other PBSGL modules exist which cover hypothyroidism, chronic kidney disease, vitamin D level, diabetes and hyponatraemia, therefore these issues are *not* covered in this module.

The cases below are designed to illustrate the problems described in the aims of the module. They are real cases, but are *not* meant to be the focus of the group's discussion. Instead, PBSGL groups are encouraged to think of similar cases in their own place of work.

Studying all the cases is not compulsory. If the group runs short of time, and completing the group feedback is still to be done, it is better to leave out a case completely. The feedback, where group members say what changes they will make in practice as a result of the meeting, is an essential part of the learning process – more important than "completing the cases".

# CASES

## Case 1. Robert, age 65

You are doing a mid-week evening out-of-hours session, when the laboratory phones you with Robert's U&E results. Na = 135 mmol/L, K = 6.4 mmol/L, eGFR = 35, and creatinine = 145 mmol/L.

You do not have access to any past medical history but you do have a list of repeat prescriptions on his electronic record. These include losartan 25mg daily and metformin 1g BD.

What would you do next?