

Instructions

Your group has been assigned an activity which will form part of your assessment for the module. The assessment details are listed in your course booklet. A discussion area has been set up for your group and you will be given the details. The following is a suggested method for completing the task. You may wish to solve your task in a different way as long as it achieves the aims of the activity.

- Read the description of the group activity below
- Introduce yourselves to each other and decide a strategy for solving the problem
- Divide the activity into separate tasks
- Decide also how you will investigate the problem in your own clinical practice and discuss your plans with others in the group
- Keep others in the group informed of your progress
- Discuss each separate task as they are completed
- Agree a final draft of the group document
- Each person prepares their individual report

Activity

Finding cases of MODY in clinical practice

Maturity-onset diabetes of the young (MODY) is a group of monogenic causes of beta-cell dysfunction that is diagnosed in the 2nd - 4th decades of life and represents about 1 – 2 % of cases of Type 2 Diabetes in the UK. There are various subtypes of MODY each with different genetic causes and clinical features. Finding a specific aetiology is beneficial as it helps guide treatment choices, prognosis and information for relatives.

Although routine genetic testing is not available in the UK it is important that the diabetic team are aware of the clinical features, diagnosis and management of MODY.

Your group task is to design a mechanism for detecting more cases of MODY. As an individual you will investigate how such a mechanism would be applicable to your own clinical practice.

Suggested reading

Owen KR, Stride A, Ellard S, Hattersley AT. Etiological Investigation of Diabetes in Young Adults Presenting With Apparent Type 2 Diabetes. *Diabetes Care* 26:2088-2093, 2003

Tuomi T, Carlsson A, Li H, et al. Clinical and genetic characteristics of type 2 diabetes with and without GAD antibodies. *Diabetes* 48: 150–157, 1999

Owen K, Hattersley AT. Maturity-onset diabetes of the young: from clinical description to molecular genetic characterization. *Best Pract Res Clin Endocrinol Metab* 15: 309–323, 2001

Davis TM, Wright AD, Mehta ZM, et al. Islet autoantibodies in clinically diagnosed type 2 diabetes: prevalence and relationship with metabolic control (UKPDS 70). *Diabetologia*. 2005 Apr;48(4):695-702

Timsit J, Bellanne-Chantelot C, Dubois-Laforgue D, Velho G. Diagnosis and management of maturity-onset diabetes of the young. *Treat Endocrinol*. 2005;4(1):9-18.

Tutor plan – Finding cases of MODY in clinical practice

Students may find this challenging because of the overwhelming number of potential genes involved and the absence of any agreed consensus for the diagnosis of MODY and other causes of apparent Type 2 Diabetes in young adults such as LADA.

Promote a broad range of reading and discussion about the diagnosis of MODY. Monitor the discussion group and direct the discussion if required.

- How does MODY present? How would you communicate that to trainee staff?
- How many cases would they expect to find in their clinic?
- How could it be beneficial to the patients if they were diagnosed?
- Would considering MODY at diagnosis lead the clinical team to do anything different?
- What if a patient asked “what is the risk of my child getting diabetes”?
- Is MODY a “milder” form of Type 2 diabetes?

Encourage them to create a practical approach that considers the importance of the presence of obesity, family history, appropriate antibody testing and rational choice of treatment in patients presenting with apparent Type 2 diabetes. Guide the students away from considering setting up a genetic research programme such as Andrew Hattersley's in Exeter. (Unless, of course, they decide their group activity will be to write a valid research proposal to develop one!)