

Can patients at risk of cystic fibrosis related diabetes be identified early?

Research team: R Richmond, D McKenna, R Rowe, S Tierney, C Deaton

Contact: Ruth.Richmond@uhsm.nhs.uk

Period of data collection: September – November 2007

Background: Early intervention is regarded as essential in cystic fibrosis related diabetes (CFRD) due to the adverse effect developing the condition can have on pulmonary functioning and nutritional status among patients with cystic fibrosis. Unfortunately, detection can be difficult because this form of diabetes is often asymptomatic and may go undetected for several years.



Aims: To develop a screening tool to identify potential cases as early as possible in order to reduce negative outcomes associated with the onset of CFRD.

Data collection: A screening tool was developed by practitioners working at the Manchester Adult Cystic Fibrosis Centre. The tool was based on a review of the literature and clinical experience. It contained items thought to be associated with development of CFRD. A retrospective review of medical notes was conducted. Patients with an abnormal oral glucose tolerance test (OGTT) in 2005 or 2006 were compared with patients who had normal OGTT results in the same years using information from annual reviews to complete the screening tool.

Analysis: Data were entered into the statistics computer package SPSS. Results for those with an abnormal OGTT were compared with individuals whose tests were normal using parametric and non-parametric tests as appropriate.

Findings: OGTT results were collected from the records of 37 patients in 2005 and 45 in 2006. The total sample had a mean age of 28 ± 8 years and 47% were female. In 2005, 18 patients had an abnormal OGTT and in 2006 the number was 14. Factors showing a significant difference or a trend towards a difference between people with an abnormal vs a normal OGTT in 2005/6 included:

- Having a previous abnormal result
- Higher rate of liver disease
- Difficulty maintaining or gaining weight
- Greater than 5% decline in spirometry

The screening tool is currently being amended to reflect these results.