*Interactive case report***A 22 year old man with persistent regurgitation and vomiting: case presentation**

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This is the first of a three part case report where we invite readers to take part in considering the diagnosis and management of a case using the rapid response feature on bmj.com. Next week we will report the case progression and in four weeks' time we will report the outcome and summarise the responses.

Kenneth Neville is a 22 year old student who presented to his general practitioner at the age of 18 with regurgitation and vomiting after meals. These symptoms became a recurrent problem, but laboratory investigations including full blood count and renal and liver function tests gave normal results. As a child Mr Neville had had frequent chest infections. His mother had been very concerned about his health and often took him to the doctors. He had reflux disease and asthma diagnosed. His asthma remains difficult to control despite the use of inhalers, sodium cromoglicate, and leukotriene receptor antagonists. Nevertheless, he completed school with good qualifications and was happy at college, achieving good grades. He was president of his class and organised events. He did not smoke, drink excessive alcohol, or take drugs. He had no relevant family medical history.

When he was 21, Mr Neville was admitted to his local hospital for two months with severe nausea, epigastric pain, regurgitation, and vomiting. Routine investigations, including a malabsorption screen, tests for thyroid function and coeliac disease autoantibodies, and abdominal ultrasonography and upper gastrointestinal

Mr Neville's 24 hour ambulatory pH study

Measurement	Result	Upper normal limit
% time <pH4:	16.7	4
Erect time	16.3	6
Supine time	17.4	2
No of reflux episodes:	110	50
Erect	82	—
Supine	28	—
Longest reflux episode (erect/supine) (min)	11/47	10
No of episodes > 5 min	8	<3
Symptom index (%)	46.5	50
Episodes/symptoms	190/409	—

endoscopy, did not find a cause. Manometry showed normal peristaltic function (figure), but pH studies showed severe oesophageal exposure to acid (table). He had gastro-oesophageal reflux disease diagnosed and started treatment with acid suppressing and prokinetic drugs (omeprazole 20 mg twice daily, domperidone 10 mg four times a day). This management eased the abdominal pain but did not relieve the other symptoms. He was discharged despite strong objections.

Mr Neville's condition was stable over the summer but his symptoms caused increasing difficulties on his return to college. After a difficult meeting with a member of staff he withdrew from classes. His condition deteriorated further and he was admitted for a second time on new year's eve. His postprandial regurgitation and vomiting were more severe, adequate oral intake was impossible, and he was losing weight. He complained of generalised weakness, abdominal pain, and constipation. On examination he was thin but had no anaemia, lymphadenopathy, or other signs of systemic disease. His cardiac and respiratory function was normal and an abdominal examination showed faecal loading. Routine laboratory tests and plain chest and abdominal radiographs provided no evidence of electrolyte disturbance, malabsorption, infection, inflammation, or malignancy.

Competing interests: None declared.

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Oesophageal manometry showing normal swallowing with lower oesophageal sphincter relaxation coordinated with peristalsis

Questions

- 1 What is the differential diagnosis?
- 2 What would you have done if you had been called to review Mr Neville in the community at Christmas?
- 3 What further investigations would you suggest?
- 4 What would you tell Mr Neville and his mother?

Please respond through bmj.com, remembering the Mr Neville is a real patient and that he and his carers will read the response