

D CASE STUDY
FEEDBACK



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Notes

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Acknowledgement

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Feedback

bpac^{nz} welcomes comments on this case study.

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© bpac^{nz} Dyspepsia case study results



Case Study: Dyspepsia

Case

Robert is a 48 year old businessman. You generally see him only occasionally for acute minor illnesses and injuries. Today he sees you to request a prescription for Losec; he has seen some advertising for this and thinks he has "that reflux disease".

On specific questioning you ascertain his main symptoms are:

- *retrosternal discomfort about once or twice/week*
- *usually (but not always) the discomfort is of a burning quality*
- *symptoms occur more often at night, but not exclusively so*
- *sometimes the symptoms seem to relate to type/timing of meals*

He also gets occasional upper abdominal discomfort, though the above symptoms are more prominent.

In retrospect he thinks he may have had some symptoms from time to time for a year or two, but notices them more lately. He has taken OTC indigestion products a few times in the past; they sometimes improve the symptoms but not always. While the discomfort Robert gets is not severe it is concerning to him and has some impact on his lifestyle.

- Medications:** - *nil regular*
Family history: - *father MI 58*
Social History: - *ex smoker, social alcohol*
Investigations: - *nil from the past 4 years*
On examination: - *moderately overweight*
 - *BMI 29, WC 108cm*
 - *BP 140/85, heart sounds normal*
 - *no epigastric tenderness or masses*

Notes

This case study has now closed. CME points have been entered online for those who responded by the 28th May.

Case study questions

Name _____ NZMC number _____

1. What is your differential diagnosis?

2. List at least 3 "alarm symptoms" of possible upper GI cancer it would be pertinent to inquire about

3. Are there any other non-GI symptoms you would like to question Robert about?

No

Yes (specify) _____

4. Which OTC products (indigestion remedies and/or any other products) would it be useful to specifically inquire about?

Robert has no "alarm signals" or any other concerning symptoms. He only uses the products you inquired about above occasionally.

5. Would you order any laboratory or other investigations?

No

Yes (specify) _____

You make a working diagnosis of GORD

6. What drug(s) would you choose for treating this?

Drug(s) _____

Dose _____

Frequency _____

Duration _____

7. Is there any other advice you would give Robert about the management of his complaint?

Supplementary questions (*answer these for an extra challenge*)

Suppose Robert's blood pressure is higher at later reviews and you wish to treat this.

8. Which class of antihypertensive would it be wise to avoid in someone with GORD symptoms?

Beta blockers

Diuretics

ACE inhibitors

Ca²⁺ channel blockers

Other

9. Should H.Pylori be treated in patients with GORD?

Yes No

Analysis of responses

Q1. Differential diagnosis

On average practitioners listed 3 or 4 diagnoses. Most common:

GORD	90%
Functional dyspepsia/dyspepsia unspecified	74%
IHD/angina	74%
Upper GI cancer	31%
Peptic ulcer	16%

Others: gallstones, musculoskeletal pain, oesophageal dysmotility, gastritis/duodenitis, hiatus hernia.

Panel Comments

It was good to see most people considered the possibility of non-GI disorders, in particular atypical angina. This diagnosis needs to be considered here, as Robert has some risk factors for IHD. While GORD is the most likely diagnosis based on symptoms it is quite possible other pathologies co-exist. A suggested threshold for diagnosing GORD based on symptoms is the occurrence of heartburn or reflux at least once/week on a regular basis. People with less frequent symptoms do not need to be given a label of GORD and may be managed with one of the less potent forms of treatment.

Q2. Alarm symptoms

The 3 most common symptoms listed were:

Unexplained weight loss	90%
Dysphagia	74%
Signs/symptoms of GI blood loss	74%

Family history of gastric cancer was mentioned by 30% of respondents, though strictly speaking this is not a symptom.

Others: protracted vomiting, severe/persistent symptoms, anorexia, and early satiety.

Panel comments

The three most common listed symptoms are appropriate. Studies have shown upper GI cancers (this includes pancreatic cancer) present with: weight loss (60%), anaemia (50%), vomiting (25%). Dysphagia is a symptom in 85% of those with oesophageal cancer and 40% of those with stomach cancer. However the positive predictive value for cancer of such symptoms is low at around 4%. Regardless, these are symptoms, which should be taken seriously and investigated.

Q3. Non-GI symptoms

In total 95% of respondents would like to question Robert on further symptoms.

Of these the most common were:

- Cardiovascular symptoms especially the relationship of discomfort to exercise: 63%
- Respiratory symptoms: 31%

Panel comments

There are a number of other features Robert could be questioned on here. However given his mixed retrosternal symptoms and family history of IHD, it would definitely be prudent to question Robert further about possible CVD related symptoms.

Q4. OTC products

The most common products people would question Robert on were:

antacids in general	73%
NSAIDs	65%
H2RAs	41%
Aspirin	38%

Others mentioned: iron tablets, herbal products, and calcium tablets.

Panel comments

Enquiring about aspirin/NSAID use is important here as Robert has some dyspepsia symptoms as well as heartburn. The history mentions he has been seen previously for minor injuries, he may well have used NSAIDs in the past or currently. Ranitidine is available OTC so it is worth enquiring of Robert whether he has used this. If he had tried this for a reasonable length of time and still had symptoms this would be an indication for PPI use, or possibly endoscopy referral.

Herbal products were listed by some respondents. Some products associated with gastric upset are: slippery elm, horehound, and selenium products.

Q5. Investigations:

75% would order investigations at this stage.

Of these the most common were:

FBC or Hb	79%
Lipids	41%
H. Pylori	36%
LFTS	34%
Iron or ferritin	32%
Glucose	19%
ESR	17%
ECG	8%
Oesophagoscopy	7%
FOB	7%

Panel comments

It is reasonable to order some laboratory tests at this stage. FBC/Hb, and iron studies or ferritin would be appropriate to check for iron deficiency anaemia. LFTS could be useful for indicating biliary disorders or excess alcohol use.

Opportunistic testing of fasting glucose and lipids is reasonable as cardiovascular risk assessment is advisable for Robert. The New Zealand guidelines on this topic recommend opportunistic assessment for asymptomatic males from age 45.

Testing for *H.Pylori* at this initial stage is probably not necessary as Robert's likely diagnosis is GORD rather than stomach ulcers. Few people would order cardiac investigations at this stage, presumably on the basis IHD is unlikely as Robert has no "concerning symptoms" on questioning. A resting ECG is likely to be normal in 50% of patients who have typical angina. An ETT is more sensitive (65%), but more difficult to procure.

Q6. Drug treatment

Drugs

Omeprazole	61%
Ranitidine	28%
Pantoprazole	7%
Gaviscon or domperidone	5%

Doses:

Omeprazole: 90% would use 20mg O/D

Ranitidine: 65% would use 150mg BD

Duration:

PPI prescribers:

2 weeks or less	8%
4 weeks	54%
6 weeks	8%
8-12 weeks	27%

Ranitidine prescribers:

2 weeks or less	4%
4 weeks	55%
6 weeks	5%
8-12 weeks	33%

Panel comments

The majority of people chose to prescribe a PPI. This is a reasonable choice, PPIs are recommended for GORD treatment first-line, usually on a step-down basis. A dose of 20 mg omeprazole is adequate for most patients. Guidelines on the appropriate duration of treatment differ, but at least 4-6 weeks for oesophageal healing should be used (some guidelines suggest longer). Robert should be reassessed after this phase and if the treatment is successful step-down to less potent treatment may be tried. Ranitidine could also be used, with step-up to a healing course of PPIs if unsuccessful.

Q7. Other Advice

- 80% of people would offer lifestyle advice such as weight loss, exercise, and diet suitable for GORD.
- 17% advised on when to return for follow-up, indications for referral or further drug treatment options.
- 16% advised avoiding NSAIDs.

Panel comments

It is a good opportunity to discuss lifestyle issues here as it can be brought to Robert's attention his weight/diet are starting to impact on his health. It could be reinforced here healthy diet and exercise may decrease his cardiovascular risk as well as improving GORD symptoms. The evidence for commonly advised lifestyle modifications (such as diet, weight loss, raising the head of the bed) improving GORD symptoms is limited, however lifestyle improvements may also benefit Robert in other ways.

Q8. Antihypertensives to avoid

Ca ²⁺ channel blockers	73%
Beta blockers	10%
Diuretics	5%
Ace inhibitors	5%

Panel comments

Calcium channel blockers may worsen GORD symptoms by inducing relaxation of the lower oesophageal sphincter. Theophylline and nitrates (which were noted by a few respondents) are some other drugs, which may have this effect.

Q9. *H. pylori* treatment

Yes	48%
No	52%

Panel comments

This was a controversial question. There is ongoing research in this area, but “no” is probably the most correct response. More clarification in this area would be welcome though. Treating *H.pylori* will not improve GORD symptoms, and may possibly worsen them. “Test and treat” strategies are not generally recommended for GORD management. “Test and treat” is a recommended strategy for dyspepsia management in countries/areas where the prevalence of *H.pylori* is high. Perhaps a more relevant question is should *H. pylori* be tested for in this case, as noted above, testing is probably not indicated at this initial stage.



Gastroenterologist Comments

Robert's symptoms are typical for GORD, and it was good to see a 90% response for this diagnosis. Many patients have an overlap with non-specific dyspepsia, but GORD should still be the primary focus of management. However, IHD must always be considered in such patients, particularly (as here) where risk factors are present. Note that both GORD and IHD are both common conditions and may coexist. Hiatal hernia is now no longer favoured as a cause for symptoms in its own right, but there is evidence that it may act as a predisposing cause for GORD.

Respondents correctly focused on complications related to GORD (dysphagia, weight loss and blood loss). Cancer is unlikely in this patient, but warrants a thought because of its potential importance to the individual. Gastric cancers are relatively rare at this age in Caucasians, but tend to occur a decade earlier in Maori, Pacific Island and Asian patients, and even earlier if they have a family history. Oesophageal cancers are more common in Caucasian males, but most present with dysphagia.

OTC products can have both positive and negative effects on GORD. Response to antacids/alginate/H2RAs may favour GORD over IHD, but this is very non-specific. NSAIDs (including aspirin) may well relate to dyspepsia in general; it is well worthwhile enquiring about all analgesia as many patients do not recognise OTC medications as NSAIDs. A full drug history must be obtained from all GORD patients.

Investigations do not play a major part in the initial management of a patient with GORD aged <50 years and with no alarm signals. However, it would be prudent to check his FBC and, if any abnormality in haemoglobin level or MCV/MCH, his ferritin and iron studies. In view of his IHD risk factors, there would be good justification for fasting lipids and glucose, and perhaps an ECG. Upper gastrointestinal endoscopy is not indicated at this stage. *H pylori* does not have a role in the diagnosis of GORD (see below).

This patient's symptoms warrant drug therapy. There are good data to show that PPIs are the drugs of choice for GORD. The option is to step-up or step-down the potency and efficacy of treatments. Although both approaches are legitimate, most now favour step-down. Symptomatic response rates with PPI are better at 2 weeks (69%) than with H2RAs at 12 weeks (58%). Initial treatment is with a full dose (omeprazole 20mg or pantoprazole 40mg), with a step down to half-dose, and then perhaps H2RA and antacid/alginate as necessary. About 20% of patients can stop treatment, and many only take medication as necessary. A minority of patients (up to 25%) may require a double dose of PPI to control symptoms, many of these in the initiation phase. PPIs are best taken 30 minutes before breakfast with a glass of water, and not at night, even if reflux occurs at night. H2RAs are best given twice daily, the second dose at bedtime. Duration of treatment is usually 4 to 8



Gastroenterologist Comments

weeks, although many patients may require longer courses as part of the step-down process. Stepping down is essential if the cost factor of treatment is to be taken seriously.

Lifestyle advice would certainly be helpful to Robert, although this is more of general value rather than specific for GORD. Some patients do reflux less below a certain weight threshold. Avoiding big or fatty meals late in the evening is often helpful in night refluxers.

H pylori eradication does not have a role in the diagnosis or management of GORD, as opposed to peptic ulcer where it plays a pivotal role. A test-and-treat approach may be used in non-specific dyspepsia in young patients without alarm signals in areas of moderate to high *H Pylori* prevalence, but is not of value in GORD. PPIs produce greater acid inhibition in patients who are infected with *H pylori*. On the other hand, chronic gastritis and intestinal metaplasia may be more common in patients infected with *H pylori* who are on long term PPI treatment; although this is part of a process which has been linked with gastric cancer, prolonged follow-up in large numbers of patients to date has not shown a problem with gastric cancer. A good rule of thumb is not to test for *H pylori* if you are not sure you need to treat the patient with a positive result. If you have a positive test, you are constrained to treat.

Professor Gil Barbezat

