

Managing the complications of obesity in primary care

Prescriber's Corner describes situations encountered by pharmacist prescribers and invites readers to consider clinical decisions about the patient. In this case, you are a primary care pharmacist who is reviewing a patient with obesity.

You are a primary care pharmacist reviewing a range of general practice prescribing challenges in a patient with obesity. The patient has several problems that are linked to obesity and poor diet.

The case

Mrs CS is a 40-year old patient with a body mass index of over 45. She has no significant previous medical problems.

Mrs CS does not smoke and only drinks occasionally; she sometimes has a can of lager in the evening. She does not exercise; she says she would like to but finds it difficult and embarrassing because of her weight.

Mrs CS has a long history of a poor diet that is high in fat and salt, and low in fresh food and fibre. She says that she relies on takeaways or ready meals for most evening meals. She has little motivation to improve her diet and her understanding of healthy foods and how to prepare them is poor. Her husband is also significantly overweight and encourages their poor dietary practices, stating "it is our only vice".

Mrs CS was recently assessed by her GP for obesity-related comorbidities. Her fasting blood glucose level, lipid profile and blood pressure were normal.

Mrs CS was referred to a weight management service and has been made aware of the risk of developing obesity-related complications such as hypertension and diabetes, and how these conditions may affect her long-term health.

Recent changes

Three months ago, Mrs CS presented at her GP surgery with pain when passing stools. Her GP performed a rectal examination and diagnosed Mrs CS with a posterior anal fissure with no underlying cause other than

a history of constipation and the passing of hard stools.

Her GP considered the use of glyceryl trinitrate (GTN) ointment to treat the anal fissure and asked you for information on its use.

Clinical review

- What are the treatment options for anal fissures?

Treatment options for anal fissures Anal fissures are defined as tears or ulcers immediately within the anal margin. The primary management is to ensure that stools are soft and easily passed. Bulk forming laxatives, such as ispaghula husk, are primarily used unless they are unacceptable to the patient, in which case the use of docusate sodium, which has a dual action as both a stimulant and a softener, is appropriate. Mrs CS should be informed that osmotic laxatives need to be used regularly and will not produce an immediate effect.

In this case regular docusate sodium was prescribed. To minimise pain when defecating, a topical anaesthetic, in this case lidocaine ointment, was also prescribed. This should be used short-term, until the fissure has healed.

GTN ointment promotes the healing of anal fissures by increasing anodermal blood flow and reducing maximum anal resting pressure. It may also reduce the need for surgery to correct the fissure. It should be considered for adults with primary anal fissures who are not pregnant or breastfeeding. Patients should be aware of the risk of headaches, which occur in approximately 50% of patients using GTN ointment.

GTN ointment was prescribed for Mrs CS, to be used for up to eight weeks or until the fissure had healed.



Further complication

One week after Mrs CS was diagnosed with the anal fissure, she presented at an accident and emergency department with a swollen, painful and inflamed right calf. The pain began spontaneously when she was asleep.

An isolated calf vein deep vein thrombosis (DVT) was diagnosed and tinzaparin 175IU/Kg was administered. Mrs CS was referred to the anticoagulant clinic in her local hospital, where she was initiated on warfarin treatment.

Since the DVT was spontaneous in presentation and considering the associated risk as a result of her obesity, treatment was to be continued for at least six months before review by a haematologist. Tinzaparin treatment was stopped when Mrs CS's INR was maintained above 2.0, with a target of 2.5.

Clinic review

Mrs CS returned to your clinic two weeks after her DVT was diagnosed, for a review of her anal fissure treatment. The docusate sodium was not providing any improvement

to her symptoms. Mrs CS assured you that she had been taking it regularly at the prescribed dosage. She said she found the lidocaine ointment of some benefit whenever she was able to pass a stool.

Clinical decision

- How should Mrs CS's lack of response to docusate sodium be managed?

Management of lack of response to docusate sodium Following non-response to docusate sodium, a patient's treatment could be changed to another osmotic laxative, or to a bulk-forming laxative. Surgery to correct the anal fissure is also an option, although it is not viable in Mrs CS's case because of her obesity and increased thrombotic risk following her DVT diagnosis.

The decision was taken to change Mrs CS's laxative treatment to lactulose and Movicol (polyethylene glycol) in combination. Although lactulose was prescribed, its use in this case is not cost-effective and is not well supported by evidence. A more appropriate choice would have been the use of bisacodyl and a suppository-based laxative, such as glycerol, which would have the added benefit of offering a local soothing action.

At this consultation the patient also described, for the first time, heavy painful menstrual bleeding for which you referred her back to her GP.

The GP had concerns about drug interactions with warfarin and asked you for advice about how to treat Mrs CS's menorrhagia.

Clinical decision

- How should blood loss with menorrhagia be managed?
- How should pain associated with menorrhagia be managed?

Management of blood loss Following a presentation of menorrhagia, the nature of the bleeding should be determined. Physical examination would be necessary if symptoms of inter-menstrual (bleeding during the cycle) or post-coital bleeding was present or if the patient was experiencing pelvic pain or pressure.

Other causes of blood loss should not be overlooked. Mrs CS's INR was normal and there was no bruising or rectal bleeding, so there was no reason to suspect a

haemorrhage from another site.

In Mrs CS's case, her warfarin could be a significant contributing factor to her increased bleeding; this also limits her treatment options.

Tranexamic acid can be used to decrease blood loss in menorrhagia because it inhibits fibrin dissolution and subsequent fibrinolysis, although it does not reduce pain (dysmenorrhoea). It is suitable for women who do not want to control their menorrhagia with oral contraceptives or invasive procedures such as coil insertion. An advantage of tranexamic acid is that it only needs to be taken during the three to four days of heaviest bleeding during menstruation. Tranexamic acid is generally well tolerated but it is not suitable for Mrs CS because of her recent DVT, and therefore thrombotic risk, although the evidence for this contraindication is largely theoretical.

A combined oral contraceptive would reduce dysmenorrhoea and would regulate the menstrual cycle, but again this would be contraindicated in Mrs CS because of her thrombotic risk. Since Mrs CS was not averse to an invasive procedure and long-term (minimum 12 months) contraception, a levonorgestrel-releasing intrauterine system (Mirena) was chosen. Long-term contraception is also beneficial for Mrs CS because of the teratogenic effect of warfarin.

Pain management Management of dysmenorrhoea with non-steroidal anti-inflammatory drugs would be unsuitable for Mrs CS because of the potential increase in bleeding risk if administered with warfarin. Regular paracetamol at the appropriate dose is the preferred option; this may increase INR, but is more controllable. The addition of a weak opioid should be avoided because this could increase constipation and therefore reduce the healing of the anal fissure.

Key principle

This case study has been designed to encourage readers to think about the following overarching principle:

- The importance of 'generalist' non-medical prescribers and their ability to apply therapeutic knowledge across a range of specialities

	Two weeks after presenting with menorrhagia
Haemoglobin	8.2 (13–18g/dL)
Haematocrit	0.3 (0.37–0.47)
Mean cell volume	75 (84–96fL)
Ferritin	10 (14–200µg/L)

Table 1: Mrs CS's full blood count results, two weeks after presenting with menorrhagia

Ongoing management

A full blood count was ordered two weeks after the last patient review. At this point Mrs CS commented that her bowel movements were less painful, and a rectal examination revealed that the anal fissure had healed.

The results of the full blood count (see Table 1) suggested that Mrs CS had iron deficiency anaemia secondary to blood loss. Ferrous sulphate 200mg BD was started immediately, with an expectation that her haemoglobin level should rise by 1g/dL/week. This should be continued until the haemoglobin level is normal and then for at least three months, until ferritin stores are replenished.

Mrs CS was warned about the likelihood of constipation and black stools as a complication of taking oral iron and was advised to continue regular laxatives and to improve her fluid and dietary fibre intake.

In this case, Mrs CS's constipation developed again and her anal fissure returned.

Mrs CS is at risk of recurrent DVT, and failure to address her poor diet and obesity will mean the risk of thrombosis remains high. Future progress will involve controlling Mrs CS's diet, convincing her to start a weight loss programme, and the possible introduction of anti-obesity treatments.

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