Dr Jarrod Lee

Dr Jarrod Lee, a gastroenterologist and advanced endoscopist at gutCARE, Singapore, shares his insights with Pearl Toh on diagnosing and managing diarrhoea in the primary care setting.

Managing diarrhoea in primary care

Diarrhoea is one of the most common conditions that GPs have to deal with in their practice. The two types of diarrhoea — acute and chronic diarrhoea — can be quite different in terms of signs and symptoms as well as management.

Based on data from Western countries, acute diarrhoea is more prevalent than chronic diarrhoea, with acute diarrhoea affecting 15–25 percent of the population annually while the prevalence of chronic diarrhoea is estimated at 5 percent. Local polyclinic data suggest an incidence of acute diarrhoea of 2.5 percent, although this is likely an underestimation. For both types of diarrhoea, local data are often limited.

Acute diarrhoea is almost always due to foodborne infections, which mostly have a viral origin such as norovirus and rotavirus infections. Bacterial infections are a common cause of traveller's diarrhoea. Rarely, acute diarrhoea may turn out to be chronic diarrhoea.

There are many causes of chronic diarrhoea. Common causes include food intolerance, irritable bowel syndrome (IBS), and drug side effects. Important causes that are more sinister include digestive cancers, inflammatory bowel disease, and chronic pancreatitis.

Diagnosing diarrhoea

Acute vs chronic

During history taking, the first priority is to differentiate between acute and chronic diarrhoea. Acute diarrhoea is diarrhoea with a duration of ≤ 2 weeks. Chronic diarrhoea is diarrhoea with a duration of >4 weeks.

In acute diarrhoea, it is important to determine the following: severity of illness, presence of fever and blood in stool, and travel history.

These will help to decide if the patient should be admitted to hospital for further management, and what antibiotics are indicated.

In acute diarrhoea, treatment may be started based on clinical history, without any investigations. Stool microbiological assessment may be considered for prolonged watery diarrhoea over 7 days, moderate-to-severe disease, and dysenteric diarrhoea. This may help guide antibiotic treatment.

In chronic diarrhoea, medical history is important to help differentiate between organic and functional diarrhoea. The key symptoms suggestive of organic diarrhoea include:

- Diarrhoea <3 months duration
- Predominantly nocturnal or continuous diarrhoea
- Presence of weight loss, fever, or gastrointestinal bleeding
- Previous surgery
- Previous pancreatic disease
- Presence of systemic disease
- Use of drugs with diarrhoea as a side effect
- Family history of digestive cancer, inflammatory bowel disease, or coeliac disease

Patients >40 years with new onset diarrhoea should also be referred for further evaluation.

To differentiate between organic and functional diarrhoea, the following screening tests can be performed:

- Blood tests such as full blood count and thyroid function test
- Stool calprotectin for inflammation
- Coeliac serology if appropriate

If organic diarrhoea is suspected, specialist referral for further investigations such as imaging and endoscopy may be indicated.

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Further insights

Acute diarrhoea can be easily managed at the primary care level according to the latest management algorithms. On the other hand, chronic diarrhoea can be very challenging even for a specialist. As the differential diagnosis is wide and varied, and can incur significant cost, early gastroenterologist referral should be considered.

Chronic diarrhoea is most often due to functional causes. In patients <40 years without alarm symptoms and with normal blood and stool screening tests, a diagnosis of functional diarrhoea can be made and patients can be started on treatment without further delay.

Challenges

In acute diarrhoea, the main challenge in diagnosis is in deciding whether microbiological tests are needed, and whether antibiotics are needed. The latest guidelines provide an effective guide on this (refer to "Useful reading"). Microbiological tests have a 2–5 days turnaround time. Many patients will consider this too long. Hence, the latest guidelines limit this requirement to very few scenarios such as those mentioned in the "Acute vs chronic diarrhoea" section above.

In chronic diarrhoea, the main challenge is differentiating between organic and functional diarrhoea. When in doubt, GPs can send patients for a screening test mentioned above to differentiate between acute and chronic diarrhoea. Also, if a presumed functional diarrhoea does not respond to treatment, a gastroenterologist referral should be considered.

One of the biggest challenges in both acute and chronic diarrhoea is managing a patient's expectations. Many patients expect their diarrhoea to stop shortly after they take the medication. Unfortunately, this is seldom the case. GPs need to educate patients accordingly to adjust their expectations.

Managing diarrhoea

In acute diarrhoea, the key aim is to prevent dehydration and electrolyte imbalance. This can be done by optimizing fluid and salt intake by consuming water, juices, sports drinks, soups, and saltine crackers. Oral rehydration salts can be given in moderate-to-severe cases. Inpatient hospital care may be required in severe cases, in elderly patients, or those with comorbidities.

Loperamide and bismuth subsalicylates may be given to decrease the duration of diarrhoea. As most acute diarrhoea cases are due to viral infections, antibiotics should only be considered for travel associated diarrhoea, dysenteric diarrhoea, and prolonged cases of severe watery diarrhoea with fever. Many GPs also give charcoal tablets and probiotics, but studies show that these do not affect the course of illness.

In chronic diarrhoea, the key aim is to differentiate between organic and functional diarrhoea. Suspected organic diarrhoea should be referred to a gastroenterologist to determine the underlying aetiology for further management. Patients with suspected functional diarrhoea may undergo a trial of treatment first without further investigations, and can be managed at the primary care level.

For chronic functional diarrhoea, the initial treatment should be diet and lifestyle modification. Diets such as carbohydrate or gluten-restricted diets, and a low FODMAP diet have been shown in studies to be effective. Simple medication such as antidiarrhoeal medication, fibre supplements, and probiotics may also have to be taken. If these fail to control the symptoms, a gastroenterologist referral may be considered to determine the suitability of some of the new pharmacological agents.

However, many patients are unable to comply with the necessary diets without the help of a dietitian. Unfortunately, many insurance schemes do not cover a dietitian consultation in this context. Basic medication can be tried but up to 70 percent of functional diarrhoea patients report that these medications do not control their symptoms adequately.

Further insights

Managing acute diarrhoea often requires patience on both the patient and the doctor. Usually, antibiotics are not required in the absence of an appropriate travel history. Instead, antibiotics may worsen the digestive symptoms. Acute diarrhoea with severe dehydration or in patients with other comorbidities may require inpatient care for intravenous rehydration.

Chronic diarrhoea is challenging to manage. Often, a systemic approach focusing on the more common aetiologies first is most effective. Again, specialist referral should be considered in chronic diarrhoea with suspected organic aetiology, or functional aetiology which is refractory to treatment.

Conclusion

The most important initial step is to differentiate between acute and chronic diarrhoea. For acute diarrhoea, emphasize fluid and electrolyte balance, start symptomatic therapy, and identify those that may benefit from antibiotic therapy. For chronic diarrhoea, differentiate between organic and functional diarrhoea. Simple blood and stool screening tests are useful. Suspected functional diarrhoea should be treated directly, whereas suspected organic diarrhoea should be referred to a gastroenterologist for further management.

Useful Reading

http://gi.org/wp-content/uploads/2016/05/ajg2016126a.pdf

http://gut.bmj.com/content/early/2018/04/13/gutjnl-2017-315909

https://www.iffgd.org/lower-gi-disorders/diarrhea/managing-diarrhea.html