

ARTICLE

Prescribing for a patient with reduced intestinal length

dose-related osmotic diarrhoea, abdominal cramps and vomiting. This can be particularly dangerous in patients whose electrolyte and fluid absorption may already be compromised by a shortened gut. Likewise, products containing sorbitol such as sodium valproate oral liquid can in theory cause diarrhoea. Diarrhoea is more likely to occur if these drugs are delivered directly into the duodenum or jejunum, such as via an enteral feeding tube. Adults often require large volumes of liquid if they are prescribed paediatric formulations. Although liquid preparations may enhance absorption, their use should be discontinued if significant symptoms develop.

In some situations an alternative route of administration such as transdermal, sublingual, buccal or parenteral may be preferred. For example, there are effective alternatives to the oral contraceptive pill, and transdermal opioids such as fentanyl patches can be used instead of sustained-release oxycodone or morphine.

Drug dose

A common strategy to improve drug bioavailability is to increase the prescribed dose – even beyond

that 'recommended'. This strategy is best used for drugs with an end result that can be monitored or are suitable for therapeutic drug monitoring. For example digoxin and lithium drug concentrations are measurable, while warfarin and beta blockers have effects which can be monitored (INR, heart rate).⁴

Conclusion

There is a potential for impaired drug absorption in patients with a shortened gastrointestinal tract. Most patients can be managed with simple measures such as selecting the appropriate formulation and dose of a drug and monitoring the outcomes of therapy. If doubt remains regarding the best way to use a drug, seek advice from a pharmacist or medicines information service. In patients who also have a short gut syndrome there is often a need for co-management with an experienced gastroenterologist, preferably in the multidisciplinary environment of an intestinal rehabilitation centre. <

Conflict of interest: none declared

**SELF-TEST QUESTIONS***True or false?*

7. Liquid formulations may cause osmotic diarrhoea in a patient with a stoma.

8. All patients with a stoma have short bowel syndrome.

Answers on page 143

REFERENCES

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3. Garg M, Jones RM, Vaughan RB, Testro AG. Intestinal transplantation: current status and future directions. *J Gastroenterol Hepatol* 2011;26:1221-8.
4. Nightingale J, Woodward JM. Guidelines for management of patients with a short bowel. *Gut* 2006;55 Suppl 4:i11-12.

FURTHER READING

The Society of Hospital Pharmacists of Australia. Therapeutic options for people unable to swallow solid oral medicines. In: *Australian Don't Rush to Crush Handbook*. 1st ed. Collingwood; 2011. [Reviewed in *Australian Prescriber* 2012;35:147]

Gastrointestinal Expert Group. Therapeutic Guidelines: gastrointestinal. Version 5. Melbourne: Therapeutic Guidelines Limited; 2011.

Australian Council of Stoma Associations

The Australian Council of Stoma Associations (ACSA) coordinates support services for people who have had ostomy surgery. In conjunction with the Australian Department of Health and Ageing, it manages the Stoma Appliance Scheme which supplies ostomy products to members.

ACSA collaborates with appliance suppliers and ostomy associations, advocates for those with inflammatory bowel disease, and produces a journal 'Ostomy Australia' which provides information on ostomy products and practice.

The state and territory associations offer assistance with appliances and supplies, through stoma therapy nurses. There are support groups in New South Wales, Victoria, Queensland, Western Australia and Tasmania.

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