

Potential harms

There are several risks for patients being treated in the home with intravenous antibiotics. Non-compliance with the non-antibiotic aspects of treatment such as bed rest, limb elevation and dressing changes can be a problem. Adverse events related to the venous access device are also of concern. A safety audit at our institution in 2009 revealed that approximately 5% of patients experienced a complication with their peripherally inserted central catheter lines (for example clots, infections) – this equates to less than 1 per 1000 catheter days. Adverse drug reactions including anaphylaxis are also potential risks. Generalised skin eruptions from long courses of penicillins, cephalosporins and carbapenems may

arise some weeks after starting therapy and may be heralded by a rising eosinophil count.

Conclusion

The treatment of infections with intravenous antibiotics in the home is an established treatment modality. Careful patient selection, safe intravenous access and appropriate training and monitoring means that many patients can be treated at home. Unfortunately, the rise of multidrug resistant infections means more patients will need prolonged courses of intravenous antibiotics. ◀

Conflict of interest: none declared

REFERENCES

1. Montalto M. The 500-bed hospital that isn't there: the Victorian Department of Health review of the Hospital in the Home program. *Med J Aust* 2010;193:598-601.
2. eTG complete [internet]. Melbourne: Therapeutic Guidelines Limited; 2010.
3. Grayson ML, McDonald M, Gibson K, Athan E, Munckhof WJ, Paull P, et al. Once-daily intravenous cefazolin plus oral probenecid is equivalent to once-daily intravenous ceftriaxone plus oral placebo for the treatment of moderate-to-severe cellulitis in adults. *Clin Infect Dis* 2002;34:1440-8.
4. Bing C, Chamallas S, Hayes J, Limburg-Mancini B, Nitzki-George D, Nowobilski-Vasilios A, et al. Extended stability for parenteral drugs. 3rd ed. Bethesda: American Society of Health-System Pharmacists; 2005.
5. Poole SG, Dooley MJ. Drugs in ambulatory infusion devices. *Aust J Hosp Pharm* 1999;29:328-9.
6. Vella-Brincat JW, Begg EJ, Gallagher K, Kirkpatrick CM, Zhang M, Frampton C, et al. Stability of benzylpenicillin during continuous home intravenous therapy. *J Antimicrob Chemother* 2004;53:675-7.
7. McDougall D, McWhinney B. Stability of buffered benzylpenicillin solution for home intravenous therapy. Melbourne: Australian Society for Antimicrobials; 2011.
8. Keel RA, Sutherland CA, Crandon JL, Nicolau DP. Stability of doripenem, imipenem and meropenem at elevated room temperatures. *Int J Antimicrob Agents* 2011;37:184-5.
9. Nicolau DP. Optimizing outcomes with antimicrobial therapy through pharmacodynamic profiling. *J Infect Chemother* 2003;9:292-6.



SELF-TEST QUESTIONS

True or false?

5. Meropenem can be given as a 24-hour continuous infusion.
6. Ampicillin is not suitable for hospital in the home because of stability problems.

Answers on page 211

Book review

Gone viral: the germs that share our lives

Frank Bowden

Sydney: NewSouth Books; 2011.

224 pages

You would be forgiven for thinking that a book about 'bugs' is boring. From his basic training in infectious diseases at St Vincent's Hospital in Melbourne, through life in the Northern Territory coordinating sexually-transmitted disease programs, to working as a staff specialist in Canberra, Frank Bowden's colourful memoir is anything but boring.

If you've ever wondered what happened to SARS (Severe Acute Respiratory Syndrome) or asked yourself why smallpox is the only disease to be eradicated by vaccination, this is the book for you. Swine flu, meningitis, MRSA (methicillin-resistant *Staphylococcus aureus*), necrotising fasciitis and donovanosis are but a few diseases you will encounter. Anecdotal stories bring this fascinating, terrifying and sometimes just plain gross topic to life.

It is hard not to laugh out loud in parts, particularly when Professor Bowden describes the time he saw his first case of 'saxophone penis'. However, it is not all fun and games. The chapter 'Life during wartime'

is more sombre as he recounts life on the wards in the 1980s during the HIV epidemic. Or the time he was called to the morgue to a schoolboy who went to bed feeling unwell only to be found dead in the morning from overwhelming meningococcal sepsis.

The statistics on syphilis, gonorrhoea and chlamydia in Aboriginal women will shock you. Frank Bowden shares his sometimes controversial views on infection control and the 'triumphs and failings' of the health system in these communities.

Despite it being a page turner, I did feel some points were laboured – the author dedicates a whole chapter to his personal experience of a needlestick incident during the initial years of HIV. I also skimmed the chapter on hand hygiene in hospitals despite its interesting historical references to puerperal sepsis.

This easy-to-read, witty account of life in a world of germs, complete with a glossary and index, has wide appeal. If you are a clinician, public health enthusiast or just wanting to know the facts behind the headlines, this book is as entertaining as it is informative and is perfect for a Sunday afternoon read.

Fiona G Mackinnon PhD (Microbiology)

Deputy editor

Australian Prescriber

