Top 10 drugs

These tables show the top 10 subsidised drugs in 2007–08. The tables do not include private prescriptions.

Table 1

Top 10 drugs by DDD/1000 pop/day *†

Drug	PBS/RPBS ‡
1. atorvastatin	136.215
2. simvastatin	52.996
3. ramipril	29.266
4. perindopril	23.142
5. esomeprazole	19.445
6. aspirin	18.155
7. frusemide	17.877
8. irbesartan	17.272
9. omeprazole	16.678
10. salbutamol	16.624

Table 2

Top 10 drugs by prescription counts †

Drug	PBS/RPBS ‡
1. atorvastatin	10 542 015
2. simvastatin	5 773 055
3. esomeprazole	5 221 504
4. perindopril	3 836 043
5. omeprazole	3 702 832
6. paracetamol	3 666 627
7. atenolol	3 245 793
8. pantoprazole	3 150 985
9. irbesartan	3 085 338
10. metformin hydrochloride	2 961 175

Table 3

Top 10 drugs by cost to Government †

Drug	Cost to Government ($A)	DDD/1000 pop/day * PBS/RPBS ‡	Prescriptions PBS/RPBS ‡
1. atorvastatin	585 491 600	136.215	10 542 015
2. simvastatin	237 274 763	52.996	5 773 055
3. clopidogrel	196 649 817	9.776	2 636 907
4. esomeprazole	184 420 078	19.445	5 221 504
5. salmeterol and fluticasone	160 894 401	– §	2 874 427
6. olanzapine	158 220 450	3.051	864 937
7. omeprazole	108 931 730	16.678	3 702 832
8. rosuvastatin	104 846 840	9.248	1 674 364
9. venlafaxine	104 082 531	13.196	2 644 753
10. tiotropium bromide	100 464 420	5.662	1 437 217

* The defined daily dose (DDD)/thousand population/day is a more useful measure of drug utilisation than prescription counts. It shows how many people, in every thousand Australians, are taking the standard dose of a drug every day.

† Based on date of supply

‡ PBS Pharmaceutical Benefits Scheme, RPBS Repatriation Pharmaceutical Benefits Scheme

§ Combination drugs do not have a DDD allocated

Source: Drug Utilisation Sub-Committee (DUSC) Drug Utilisation Database, as at 30 October 2008. © Commonwealth of Australia.

Book review

Therapeutic Guidelines: Toxicology & Wilderness. Version 1.

Melbourne: Therapeutic Guidelines Limited; 2008. 311 pages. Price $39, students $30, plus postage

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Most sections of this book are of an excellent standard while others are inadequate and disappointing. I think this may reflect some uncertainty about the purpose of the book, which to my mind has not had enough thought put into who will use it, why and how.

The bulk of the book covers important topics in toxicology and toxinology. These sections are well prepared and will undoubtedly be very useful for practising clinicians like me, who rarely deal with such cases.

The book starts with an excellent section on resuscitation which underpins most of the other emergency medicine topics. However, given the book includes 'wilderness topics', it would

have been helpful to include the role of cardiopulmonary resuscitation (CPR) and how it differs in hypothermia, near drowning and electrical injury compared to the standard cardiac arrest situations.

While the chapter on burns is excellent, anaphylaxis is probably too detailed and makes the book look unbalanced given the inadequate coverage of some of the other environmental topics.

The section on altitude illness is so short as to be almost useless. It does not correctly describe the diagnostic criteria for acute mountain sickness, and confusingly, and perhaps dangerously, lumps this common and benign condition together with two less common and deadly ones. The section on prevention is overly brief and contains recommendations for ascent rates that do not comply with internationally accepted standards.

The information on diving medicine and heat-related illness are so short they could only be interpreted by clinicians who understand the topic.

The chapter on hypothermia is again so short that it lacks clarity and accuracy. It misses out critical management issues such as clinical assessment, gentle handling of patients and the role of CPR. The treatment algorithm is too simplified.

This book should cover common wilderness topics such as motion sickness, carbon monoxide poisoning, evacuation and long-term patient care, non-freezing cold injury, frostbite and avalanche rescue medicine. The focus should be as much on prevention as it is on treatment in the emergency situation.

My recommendation for the prospective purchaser is to read the book for its excellent toxicology and toxinology sections. If you want something to cover 'wilderness' topics, I suggest Auerbach's Field Guide to Wilderness Medicine, or the new Oxford Handbook of Expedition Medicine.

New drugs

Some of the views expressed in the following notes on newly approved products should be regarded as tentative, as there may be limited published data and little experience in Australia of their safety or efficacy. However, the Editorial Executive Committee believes that comments made in good faith at an early stage may still be of value. As a result of fuller experience, initial comments may need to be modified. The Committee is prepared to do this. Before new drugs are prescribed, the Committee believes it is important that full information is obtained either from the manufacturer's approved product information, a drug information centre or some other appropriate source.

Maraviroc

Celsentri (Pfizer)

150 mg and 300 mg film-coated tablets

Approved indication: HIV infection

Australian Medicines Handbook section 5.4

Highly active antiretroviral therapy has improved survival for patients infected by HIV, but long-term toxicity and the development of viral resistance are problematic. There is still a need to develop new drugs to treat people with clinically advanced disease which is resistant to several classes of antiretroviral drugs. The entry of HIV into a patient's cells is one target of research and has led to the development of fusion inhibitors such as enfuvirtide (see 'HIV fusion inhibitors: a review', Aust Prescr 2008;31:66–9).

Maraviroc blocks the entry of HIV into cells, but it is not a fusion inhibitor. It acts on human chemokine co-receptor 5 (CCR5) which is found on the cell membrane. Some strains of HIV (CCR5-tropic HIV-1) enter the cell after interacting with this receptor. By selectively binding to the receptor, maraviroc prevents HIV from penetrating the cell surface. This ultimately results in reduced viral replication.

The approval of maraviroc was based on the interim results of two clinical trials involving a total of 635 patients. These patients were infected with CCR5-tropic HIV-1 and had more than 5000 copies of viral RNA/mL despite previous treatment with at least one drug from at least three different classes of antiretroviral drug. A group of 209 patients were randomised to take a regimen of three to six antiretroviral drugs, while 426 added maraviroc 300 mg twice daily to this regimen. After 24 weeks the viral RNA in 23% of the patients taking the 'optimised background regimen' was less than 50 copies/mL. In the group which added maraviroc 45% had less than 50 copies/mL. The increase in the concentration of CD4 lymphocytes was 57 cells/mm^3 with the regimen alone and 106 cells/mm^3 when maraviroc was added.

When these trials were published they reported on outcomes at 48 weeks, having randomised 1075 patients. Viral RNA had fallen to less than 50 copies/mL in 17% of the patients taking the optimised regimen. The same outcome had been reached by 46% of the patients taking maraviroc twice daily and by 43% of patients using a once-daily regimen. CD_4 lymphocytes increased by 61 cells/mm^3 in the control group, by 124 cells/mm^3 with twice-daily maraviroc and by 116 cells/mm^3 with once-daily maraviroc.[1,2]

Adding maraviroc to the treatment of patients taking multiple other drugs does not greatly affect the number of adverse reactions. Nausea, diarrhoea and headache are common. Adverse events which occurred more frequently when maraviroc was added to treatment include paraesthesia, muscle