follow-up flexible and to allow ready access to help. While most attention is usually focused on the injured person, the source patient also requires counselling and support during this process.

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2. Bowden FJ, Pollett B, Birrell F, Dax EM. Occupational exposure to the human immunodeficiency virus and other blood-borne pathogens. A six-year prospective study. Med J Aust 1993;158:810-2.

FURTHER READING

Immunization of health-care workers: recommendations of the Advisory Committee on Immunization Practices (ACIP) and the Hospital Infection Control Practices Advisory Committee (HICPAC). MMWR 1997;46 (RR-18):1-42.

Public health service guidelines for the management of health-care worker exposures to HIV and recommendations for postexposure prophylaxis. MMWR 1998;47(RR-7):1-28.

Recommendations for prevention and control of hepatitis C virus (HCV) infection and HCV-related chronic disease. MMWR 1998;47(RR-19):1-39.

(These documents are available through the CDC website http://www.cdc.gov/mmwr/)

The Australian Immunisation Handbook. 7th ed. Canberra: Commonwealth of Australia; 2000.

Self-test questions

The following statements are either true or false (answers on page 103)

9. Hepatitis C is more likely to be transmitted by a needle-stick injury than hepatitis B.
10. Health workers who have seroconverted after hepatitis B vaccination still require hepatitis B immunoglobulin if they have a needle-stick injury with a high risk of hepatitis B infection.

New drugs

Some of the views expressed in the following notes on newly approved products should be regarded as tentative, as there may have been little experience in Australia of their safety or efficacy. However, the Editorial Board 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 Board is prepared to do this. Before new drugs are prescribed, the Board 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.

Desonide

Desowen (Galderma)

0.05% cream, lotion and ointment

Approved indication: dermatoses

Australian Medicines Handbook Section 8.1.2

Desonide is a topical non-fluorinated steroid which has been available overseas for many years. It has a similar structure to triamcinolone (see 'The role of corticosteroids in dermatology' Aust Prescr 1998;21:9–11).

Patients apply desonide two or three times a day. Systemic absorption occurs, so continuous treatment is limited to a maximum of eight weeks.

Desonide has been compared with hydrocortisone 1% in the treatment of children with atopic eczema. Although it is more potent than hydrocortisone and had greater efficacy, desonide had a similar safety profile.[1] Topical treatment for four weeks does not significantly affect the hypothalamic-pituitary-adrenal axis.[2] Desonide should not be used on children younger than two years.

The adverse effects of desonide resemble those of other topical steroids. These are more likely to occur if occlusive dressings are used. Patients may complain of burning, itching, irritation or dryness of the skin.

REFERENCES

1. Jorizzo J, Levy M, Lucky A, Shavin J, Goldberg G, Dunlap F, et al. Multicenter trial for long-term safety and efficacy comparison of 0.05% desonide and 1% hydrocortisone ointments in the treatment of atopic dermatitis in pediatric patients. J Am Acad Dermatol 1995;33:74-7.
2. Lucky AW, Grote GD, Williams JL, Tuley MR, Czernielewski JM, Dolak TM, et al. Effect of desonide ointment, 0.05%, on the hypothalamic-pituitary-adrenal axis of children with atopic dermatitis. Cutis 1997;59:151-3.

Galantamine hydrobromide

Reminyl (Janssen-Cilag)

4 mg, 8 mg and 12 mg tablets

Approved indication: Alzheimer's disease

Australian Medicines Handbook Section 16.5

There is now a choice of acetylcholinesterase inhibitors (donepezil, rivastigmine and tacrine) for the treatment of mild to moderate Alzheimer's disease. Galantamine is a new inhibitor of acetylcholinesterase which has been extracted from flower bulbs such as daffodils and snowdrops. In addition to increasing acetylcholine concentrations by inhibition galantamine is also thought to modulate nicotinic receptors. Activation of presynaptic nicotinic receptors can increase the release of acetylcholine.

Patients begin treatment with a twice daily dose of 4 mg. This can be increased to a total daily dose of 16 mg and then 24 mg at monthly intervals according to the patient's response and their ability to tolerate galantamine. The drug is rapidly absorbed. Although food slows the rate of absorption, it is recommended that galantamine is taken with meals. Approximately 20% of the drug is excreted unchanged in the urine. The metabolism of galantamine involves cytochrome P450 2D6 and 3A4, so there is a potential for drugs which inhibit these enzymes, for example paroxetine and

erythromycin, to increase the bioavailability of galantamine. Severe hepatic or renal impairment is a contraindication.

There have been several double-blind randomised placebo-controlled trials of galantamine. These trials used daily maintenance doses of 8 mg, 16 mg, 24 mg or 32 mg and measured the effects on rating scales such as the cognitive subscale of the Alzheimer's disease assessment scale. In a study lasting five months there was a difference of 3.3–3.6 points on this 70 point scale.[1] The difference between galantamine (24 mg daily) and placebo was 3.1 points in a study lasting six months[2], and 3.9 points halfway through a year-long study.[3] Clinicians and carers both considered that galantamine was significantly more effective than placebo in all three trials.

Discontinuations because of adverse reactions were more frequent at higher doses. Common adverse effects include nausea, gastrointestinal upsets, weight loss and headache. Galantamine should be used cautiously in patients with a cardiac conduction disorder and those who are taking drugs which reduce the heart rate. The cholinergic effects of the drug also preclude its use in patients with urinary outflow obstruction, severe asthma or obstructive pulmonary disease.

Approximately one patient in five will be unable to tolerate galantamine. Those that do may achieve a statistically significant benefit on rating scales, but the long-term clinical benefits are unclear. The clinical relevance of a three point change may vary considerably from one patient to another. In the study which continued for 12 months the patients' disability did not significantly change.[3] Galantamine is not approved for more severe cases of dementia.

REFERENCES

1. The Galantamine USA-10 Study Group. A 5-month, randomized, placebo-controlled trial of galantamine in AD. Neurology 2000;54:2269-76.
2. The Galantamine International-1 Study Group. Efficacy and safety of galantamine in patients with mild to moderate Alzheimer's disease: multicentre randomised controlled trial. Br Med J 2000;321:1-7.
3. The Galantamine USA-1 Study Group. Galantamine in AD. A 6-month randomized, placebo-controlled trial with a 6-month extension. Neurology 2000;54:2261-8.

Levetiracetam

Keppra (UCB Pharma)

250 mg, 500 mg and 1000 mg film-coated tablets

Approved indication: epilepsy

Australian Medicines Handbook Section 16.1

Over the past few years several drugs have been developed as 'add-on therapy' for patients whose epilepsy is not well controlled by conventional treatment (see 'New antiepileptic drugs' Aust Prescr 1999;22:61–3). Levetiracetam is a new drug which has been approved as add-on therapy for patients with partial onset seizures with or without secondary generalisation.

The mechanism of action is unknown. Levetiracetam does not act in the same way as other antiepileptic drugs.

Patients take levetiracetam twice a day. Absorption is rapid and unaffected by food. Most of the drug is excreted unchanged in the urine. The dose should be adjusted if renal function is reduced. Although 24% of each dose is metabolised no dose adjustment is needed in hepatic impairment unless liver function is severely reduced.

A double-blind trial compared levetiracetam with placebo as add-on therapy for 294 patients with refractory partial seizures. The frequency of seizures was halved in 33% of patients taking levetiracetam 1000 mg daily and in 40% of patients taking 3000 mg daily. Only 11% of the placebo group had similar reductions in seizure frequency. Patients taking the higher dose of levetiracetam had a 30% reduction in the weekly frequency of seizures relative to placebo.[1]

The common adverse effects of levetiracetam are somnolence, asthenia and headache. If treatment has to stop it should be gradually withdrawn. In the clinical trials 13% of patients given levetiracetam developed an infection compared with 7% of patients given a placebo. A few patients will have a decreased white blood cell count. Some patients taking levetiracetam will develop behavioural problems such as hostility, particularly in the first few weeks of treatment. There have been a few reports of psychotic symptoms.

As levetiracetam is mainly excreted in urine it is unlikely to have significant interactions with drugs metabolised by the liver. It does not inhibit the cytochrome P450 system. The pharmacokinetics of levetiracetam are unchanged by phenytoin, carbamazepine, phenobarbitone, lamotrigine and gabapentin.

The studies show that levetiracetam is a better adjunctive therapy than placebo, but its long-term safety is unknown. There is also no information about its use in children or how it compares with the other add-on therapies.

REFERENCE

1. Cereghino JJ, Biton V, Abou-Khalil B, Dreifuss F, Gauer LJ, Leppik I, et al. Levetiracetam for partial seizures. Results of a double-blind, randomized clinical trial. Neurology 2000;55:236-42.

NEW FORMULATIONS

Didanosine

Videx EC (Bristol-Myers Squibb)

125 mg, 200 mg, 250 mg and 400 mg modified-release capsules

Hepatitis B vaccine (recombinant)

HB-VAX-II (CSL)

5 microgram/0.5 mL vials

Naproxen sodium

Nurolasts (Boots)

275 mg tablets

Salmeterol/fluticasone propionate

Seretide MDI (GlaxoSmithKline)

50 microgram fluticasone/25 microgram salmeterol

125 microgram fluticasone/25 microgram salmeterol

250 microgram fluticasone/25 microgram salmeterol

Testosterone
Androderm (Faulding)
12.2 mg transdermal patch

NEW STRENGTHS

Alendronate
Fosamax (Merck Sharp & Dohme)
70 mg tablets

Frusemide
Lasix (Aventis Pharma)
40 mg/4 mL ampoules

Isotretinoin
Oratane (Douglas)
10 mg capsules

Mitozantrone
Onkotrone (ASTA Medica)
10 mg/5 mL, 20 mg/10 mL and 25 mg/12.5 mL

Montelukast sodium
Singulair (Merck Sharp & Dohme)
4 mg tablets

Ramipril
Tritace (Aventis Pharma)
10 mg capsules

Rh D immunoglobulin (human)
Rh D immunoglobulin (CSL)
250 IU vials

Lamotrigine
Lamictal (GlaxoSmithKline)
2 mg tablets

NEW PROPRIETARY BRANDS

Bleomycin sulfate
Blenemax (ASTA Medica)
15 000 IU powder for injection

Ceftriaxone sodium
Ceftriaxone-BC (Biochemie Australia)
1 g/15 mL and 2 g/50 mL vials

Diphtheria, tetanus and pertussis vaccine
Boostrix (GlaxoSmithKline Australia)
0.5 mL pre-filled syringes

Enalapril maleate
Enalapril-BC (Biochemie Australia)
5 mg, 10 mg and 20 mg tablets

Fluticasone propionate
Flixotide Junior CFC-Free Inhaler (GlaxoSmithKline)
50 microgram/actuation

Ipratropium bromide
Apoven 250 (Douglas)
250 microgram/mL nebuliser solution in 1 mL containers

Metformin hydrochloride
Metformin-BC (Biochemie Australia)
50 mg and 800 mg tablets

Moclobemide
Moclobemide-BC (Biochemie Australia)
150 mg and 300 mg tablets

Propofol
Propofol Injection (Abbott)
10 mg/mL emulsion for infusion

Tamoxifen
Tamoxifen-BC (Biochemie Australia)
10 mg and 20 mg tablets

Implementing JETACAR

With reference to Professor Turnidge's editorial 'Antibiotics in animals – much ado about something' which was recently published in *Australian Prescriber* (2001;24:26–7), the 'Implementing JETACAR' web site was recently launched.

The web site is a gateway to information on what the Commonwealth Government is doing to address the growing problem of antibiotic resistant bacteria.

The address is http://www.health.gov.au/pubhlth/strateg/jetacar/index.htm

Therapeutic Guidelines: Endocrinology
Version 2, 2001

A new revised, updated version of Therapeutic Guidelines: Endocrinology has been published, giving recommendations for the management of endocrine-related illness. New chapters have been added on menstrual disorders, hormonal contraception, paediatric implications of endocrine disorders, overweight and obesity, and androgenisation in women.

For information about Endocrinology or any other Guidelines title, contact Therapeutic Guidelines Limited, freecall 1800 061 260, e-mail sales@tg.com.au or visit the web site at www.tg.com.au All Therapeutic Guidelines titles are available in electronic format.