the Complaints Resolution Panel. I believe that this information should be publicly available and open to challenge.

The expert committee also recommended that the TGA should increase the level of random auditing of the evidence for complementary medicines.[7] Particular scrutiny could be given to certain categories, such as 'weight loss' products. However, a review of complementary 'weight loss' products was commissioned by the TGA in mid-2007, but is yet to be made public. The TGA also claims to randomly review the labels, product specifications and evidence for listed indications in about 25% of new listings. However, until such time as the TGA is able to conduct audits in a transparent manner there can be little confidence in their value.

The Australian government has provided $7 million for complementary medicine research. However, Australian clinical trials can only evaluate a handful of the 16 000 listed products currently available in the market. Choice (formerly the Australian Consumers' Association) has proposed a pragmatic solution to this problem – an independent evaluation of complementary medicines on an opt-in, cost-recovery basis. Efficacious products, ethically promoted, with appropriate consumer medicine information could be awarded a mark of approval similar to the National Heart Foundation's 'tick' for healthy food. Choice has set up a multidisciplinary working party to explore the practicality of this proposal.

In conclusion, the current Australian regulatory system neither adequately controls complementary medicine claims nor encourages an evidence-based industry. This is unacceptable given that Australians spend an estimated $1.31 billion on these medicines each year. The challenge for the government is to overcome industry self-interest, and the perception of regulatory 'capture', and to institute the reforms required. This will require continued advocacy by health professional and consumer groups.

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Further reading

McEwen J. What does TGA approval of medicines mean? Aust Prescr 2004;27:156-8.

Dr Harvey is a member of the Choice Policy Advisory Group.

Letters

Letters, which may not necessarily be published in full, should be restricted to not more than 250 words. When relevant, comment on the letter is sought from the author. Due to production schedules, it is normally not possible to publish letters received in response to material appearing in a particular issue earlier than the second or third subsequent issue.

Paediatric analgesia

Editor, – The article on paediatric analgesia (Aust Prescr 2008;31:63–5) provides a valuable quick reference on the subject. There is an additional purported mechanism of action for paracetamol, which may have implications in the setting of polypharmacy, especially perioperatively, or associated with chemotherapy.

A serotonergic mechanism of action has been reported for paracetamol.[1,2,3] The inhibition or obliteration of paracetamol-induced analgesia by 5-HT_3 antagonists, commonly used as antiemetics perioperatively, may warrant consideration when prescribing paracetamol concurrently with drugs from this class. Ondansetron, perhaps the most likely drug from the class to be prescribed to a child, may be less likely to inhibit analgesia, particularly in comparison to tropisetron.[4]

Ian Cox
Department of Anaesthesia and Pain Management
Concord Hospital, Sydney

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Dr Sean Beggs, author of the article, comments:

The lack of clarity about the mechanism of action for paracetamol is even greater than presented in the article (Aust Prescr 2008;31:63–5). Experimental studies have shown that the analgesic effect of paracetamol can be decreased with the administration of some 5-HT_3 antagonists (tropisetron)[1,4] but not others (ondansetron)[4], while some have been shown to have conflicting effects (granisetron).[3,4] This therefore raises the question of whether it is specifically a 5-HT_3 antagonist effect, or if some drugs in the class are having this effect via another mechanism.[4]

Of importance, however, is the fact that the effects of any of the 5-HT_3 antagonists on paracetamol's action have yet to be shown to be clinically significant. Given this and the fact that ondansetron is the 5-HT_3 antagonist most likely to be used in children, it is difficult to argue that they should not be used in combination. Until clinical trials in children have been undertaken however some doubt remains.

References

As above.

Editor, – Regarding paracetamol dosing for obese children, when using the formula in Dr Beggs' article (Aust Prescr 2008;31:63–5) the predicted lean body weight is 41.8 kg. However, when determining this using the growth charts, the value is 35 kg. Does it matter which method is used?

Would this be the case when calculating dosing of other medicines?

Anderson Leong
Pharmacist
Moorebank, NSW

Dr Sean Beggs, author of the article, comments:

Determining the most appropriate dose of paracetamol and other medications in overweight and obese children is not straightforward. This is because like many issues relating to medications in children there have not been the studies to provide the definitive answer. The formula to calculate lean body weight given in the article is based on adults as there is no validated formula for children. For this reason and for ease of use, the weight-for-height method using growth charts is also outlined. The latter method is slightly more conservative (that is, will give a lower weight) but is not as conservative as if you were to simply use a child's expected average weight for age. For these reasons the weight-for-height method using growth charts is recommended.

Drug information

Editor, – As a retired doctor, I have recently been prescribed various medications about which I wish to obtain more information. I realise that my doctors do not have the time to detail all the side effects, and anticipated finding these in an information sheet within my new packs.

In the case of Patanol eye drops I was not disappointed – just overwhelmed. With Acimax tablets there was no insert, leading me to ask the pharmacist for the drug information sheet. This was dated 2006 and omitted the important facts that it could cause vitamin B_{12} deficiency and that in postmenopausal women taking calcium carbonate, calcium malabsorption might occur. The next disappointment was with Celebrex. No insert in the packet and an inadequate drug information sheet reprinted from MIMS. Next, Mobic to replace the ineffective Celebrex. Again no information included.

As so many patients are admitted to hospital suffering from the ill effects of prescribed drugs, any measure which improves surveillance, even by the patient, should be welcomed. I believe that there is a good case to be made for including an information sheet with **all** prescription drugs listing their common contraindications and side effects accompanied by a caveat saying where further information can be obtained about less common adverse events.

John Martin
Retired general practitioner
Peppermint Grove, WA

Editorial comment:

In addition to talking to their own doctor or pharmacist, consumers can call Medicines Line for independent information on prescription, over-the-counter and complementary medicines. Pharmacists are available on 1300 888 763 between 9 am and 6 pm Eastern Standard Time Monday to Friday. Health professionals can call the Therapeutic Advice and Information Service (TAIS) on 1300 138 677 between 9 am and 7 pm Eastern Standard Time Monday to Friday.

Consumer Medicine Information (CMI) for many medicines is available from the National Prescribing Service at http://www.nps.org.au/search_by_medicine_name

Parenteral drug solutions

Editor, – Many thanks for the excellent article about compatibilities of parenteral drug solutions (Aust Prescr 2008;31:98–101), written from a pharmacy point of view. It certainly contains much practical information for everyday clinical practice, but it might be helpful to add a few extra points from a clinical perspective.

Table 1 shows an incompatibility between lignocaine 2% and sodium bicarbonate solution. In practice, however, the two substances make an excellent marriage; the intense stinging of local anaesthetic injections is markedly reduced by mixing the two. The only problem (in practice) is that left to stand for a few minutes, crystals do form and can block fine needles. The practice is well known and has stood the test of decades.

It is also noted that diazepam precipitates in water. Is this really the case or could the cloudiness be an innocent emulsion? In any case, dilute diazepam (for example 10 mg in 10 mL saline) has been given intravenously for years and works very well. It is standard practice and certainly far easier to titrate than the 10 mg in 1 mL in the ampoule.

The article states that phenytoin must not be diluted as it will precipitate. With its extreme pH of 12, intravenous injection of phenytoin is made easier and less irritating by dilution in saline. Although not described in the product information, it is thankfully normal practice. 'Phenytoin … must be diluted in 0.9% saline (rather than dextrose) to avoid crystallization'.[1]

Andrew Montanari
General practitioner
Merewether, NSW

Reference

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Mr Peter Murney, author of the article, comments:

Lignocaine hydrochloride is an acidic solution (pH = 2.3) which causes pain upon injection. Adding sodium bicarbonate injection to raise the pH and reduce pain is widely practised and supported by a wealth of literature. Nonetheless, the solutions are incompatible and mixing them precipitates lignocaine from its hydrochloride salt. Intradermal injection of suspended lignocaine crystals is of no concern as lignocaine has no local toxicity and will absorb into tissue eventually.

However, intravenous injection of precipitated particulate matter concerns me as I suspect it would many other health practitioners. Diazepam injections are painful, probably because of venous irritation from the propylene glycol/ethanol/water solvent system. Appropriately slow administration of the small volume may also be difficult. There is no component of the mixture which would produce an emulsion and the haze is probably due to precipitated microcrystalline or colloidal diazepam. After 24 hours, the diluted solution clears with deposition of a thin oily film (presumably diazepam) on the syringe barrel. At a total mass of 10 mg, it is unlikely to cause harm upon injection and should rapidly redissolve in plasma. Larger amounts of precipitated drug may result in an embolism of precipitated drug sludge although I could find only one report of an associated fatality.

While some references support addition of phenytoin to normal saline infusion solution for short periods, the diversity of stability studies is disconcerting with some reporting presence of suspended crystals immediately after addition to the bag. Contrary to the current product information, a number of institutional protocols permit addition to a saline infusion bag but generally specify use of an in-line filter to remove crystals.

Slow administration of undiluted injection solutions can be facilitated with spring-loaded devices which, with a flow restrictor fitted to the syringe, allow administration of a specified volume over a specified time.

Restless legs syndrome

Editor, – Restless legs syndrome occasionally occurs in pregnancy, but no mention was made of how this condition should be treated in Professor Thyagarajan's article on the topic (Aust Prescr 2008;31:90–3).

Benzodiazepines and antiepileptic medication have been advocated in the past. Usually the symptoms are not severe and women can cope until pregnancy is over. Are there any studies concerning the effectiveness and safety of low-dose dopamine agonists in pregnancy?

Douglas Johnson
General practitioner
Mornington, Vic.

Professor Thyagarajan, author of the article, comments:

There are very few studies of pharmacotherapy for restless legs syndrome in pregnancy and none of these involve dopaminergic drugs. However, Dr Johnson points out that it is a common problem in pregnancy, usually mild and resolves with the completion of pregnancy. Iron status should first be determined by measurement of the serum ferritin.

The teratogenicity of dopamine agonists is unknown and they cannot be recommended at present; nor is it likely that future trials will address this safety and efficacy question. If pharmacotherapy is needed, opioids, anticonvulsants such as gabapentin or carbamazepine, or benzodiazepines, all have a better safety track record during pregnancy and should be tried first.

Reference

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