LETTERS

Letters to the Editor

Intravenous paracetamol in paediatrics: cause for concern

Editor, – I disagree with the statement in the medicinal mishap (Aust Prescr 2014;37:24-5) that only one route of administration for paracetamol should be charted when treating children.

It is neither inappropriate nor unsafe. It reduces the flexibility of the nurses to decide whether the intravenous or oral route is used. The child may initially require intravenous then oral dosing (much cheaper) when suitable. The doses and dosing intervals are the same for the oral and the intravenous formulations. Rectal doses are higher, but it would not be unsafe to prescribe paracetamol 'IV/PO/PR'. Certainly 'IV/O' is perfectly acceptable. It is not practical to prescribe per rectum paracetamol in doses that are not in multiples of 125 mg.

Secondly, there is not enough room on the current standardised medication chart (which needs to be revised) to include the generic and the brand name (which is often not known to the prescribing doctor).

Greg Lumsden
Anaesthetist
Perth

Editor, – The medicinal mishap makes the statement that writing up paracetamol IV/PO/PR is unsafe. Compared to what, may I ask? Compared to writing it up on three separate sections of the chart? Writing it up on one section, I feel, makes it less likely that multiple doses are given and the daily maximum is exceeded. Postoperatively, I know that initially my patients will require intravenous administration and will progress to oral when their gut function recovers.

Peter McLaren
Anaesthetist
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Madlen Gazarian, Anna Drew and Alexandra Bennett, the authors of the medicinal mishap, comment:

We thank Dr Lumsden and Dr McLaren for their correspondence and appreciate the opportunity to provide important clarifications about NSW Therapeutic Advisory Group's (TAG) guidance on intravenous paracetamol.[1,2]

First, a fundamental principle of good therapeutics is to prescribe medicines by specifying only one route. Reasons include different indications and doses appropriate for the same medicine administered by different routes. This principle is highlighted well by paracetamol but also applies to other medicines such as morphine.

Our article recommended that intravenous paracetamol be reserved for 'short-term treatment of mild–moderate pain when enteral administration is not possible'. In addition, we recommended that treatment is reviewed daily and the intravenous prescription discontinued as soon as it is no longer needed. This is also an important risk-management strategy which eliminates exposure to potential ongoing risk (for example, 10-fold overdoses) when there is no additional efficacy benefit from intravenous over enteral administration.

Second, a general principle for safe paediatric prescribing is that prescribers 'check the basis for the dose calculation in a current paediatric prescribing reference or other up-to-date, evidence-based medicines information resource'. Current national[3] and international[4] paediatric dosing references and NSW TAG's own guidance[1,2] recommend different individual doses, dose intervals and maximum safe daily doses for intravenous, oral and rectal paracetamol for different indications. For these reasons we re-emphasise that 'prescribing paracetamol IV/PO/PR is inappropriate and unsafe'.

While acknowledging the national inpatient medication chart could be improved, our recommendation to 'specify the brand name in addition…' could be accommodated by the current paediatric chart by writing the brand name in the 'Pharmacy/Additional information' section.

REFERENCES

1. NSW Therapeutic Advisory Group. Paracetamol use: a position statement of the NSW Therapeutic Advisory Group Inc. Sydney: NSW TAG: 2008.
2. NSW Therapeutic Advisory Group. Intravenous paracetamol use. Addendum to the 2008 'Paracetamol use' position statement of the NSW Therapeutic Advisory Group. Sydney: NSW TAG; 2012.
3. Paracetamol monograph. In: AMH Children's Dosing Companion (online). Adelaide: Australian Medicines Handbook Pty Ltd; 2014.
4. Joint Formulary Committee. Paracetamol (Acetaminophen). 2014. British National Formulary (online). London: BMJ Group and Pharmaceutical Press; 2014.

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Glycated haemoglobin

Editor, – In response to the informative article by Michael d'Emden on glycated haemoglobin for the diagnosis of diabetes (Aust Prescr 2014;37:98-100), I wish to comment on the discrepancies between blood glucose and HbA1c tests. While it is noted that blood glucose is minimally elevated in patients with an HbA1c of less than 6.5%, often the first derangement noted in general practice is a fasting blood glucose concentration in the diabetic range. Patients may have had this level for years before the HbA1c climbs over 6.5%.

There is increasing evidence of clinical benefit from early medical intervention in type 2 diabetes.[1] I am therefore concerned that by relying on the HbA1c as a single diagnostic test there is a missed opportunity to prevent disease progression using early dietary and lifestyle education and/or metformin in patients with impaired fasting glycaemia as a result of worsening insulin resistance.

Ashraf Saleh
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REFERENCE

1. Garvey WT, Ryan DH, Henry R, Bohannon NJ, Toplak H, Schwiers M, et al. Prevention of type 2 diabetes in subjects with prediabetes and metabolic syndrome treated with phentermine and topiramate extended-release. Diabetes Care 2014;37:912-21.

Michael D'Emden, the author of the article, comments:

The article did not state that the HbA1c should be the only test used for diagnosis of type 2 diabetes. In the concluding paragraph, it says 'the acceptance of HbA1c testing will provide an additional tool to assist in the early diagnosis of diabetes. But it should not be the only tool.'

HbA1c is one of several biochemical tests that can be used to establish the diagnosis. They each have an important role in different clinical circumstances. The Australian Diabetes Society's HbA1c committee clearly acknowledges the important role of blood glucose measurements for the diagnosis of diabetes, in its position statement.[1]

REFERENCE

1. d'Emden MC, Shaw JE, Colman PG, Colagiuri S, Twigg SM, Jones GR, et al. The role of HbA1c in the diagnosis of diabetes mellitus in Australia. Med J Aust 2012;197:220-1.

The 'polypill'

Editor, – It is interesting to see the 'polypill' surface again (Aust Prescr 2014;37:82-6). In 2004, the BMJ published a study that showed the 'polymeal', a combined meal of seven food components, could limit cardiovascular mortality by 75% and was at least equivalent in effect to the polypill. The study's conclusion was 'Finding happiness in a frugal, active lifestyle can spare us a future of pills and hypochondria'.

John Marley
Professor
Faculty of Medicine and Biomedical Science
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REFERENCE

1. Franco OH, Bonneux L, de Laet C, Peeters A, Steyerberg EW, Mackenbach JP. The Polymeal: a more natural, safer, and probably tastier (than the Polypill) strategy to reduce cardiovascular disease by more than 75%. BMJ 2004;329:1447-50.

Professor Marley enjoys all foods present in the polymeal and refuses to take pills

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