Correspondence

Asthma guidelines: Why aminophylline?

To the Editor: While it is always encouraging to see new clinical guidelines to help direct therapy for important clinical conditions, the ‘Guidelines for the management of acute asthma in adults’ are disappointing in two regards.

Firstly, a majority of acute asthma attacks in adults are managed in the emergency centre and/or emergency medical services (EMS) setting, and yet no emergency medicine inputs – including those of the Emergency Medicine Society of South Africa – were sought or included in the guidelines.

Secondly, while the majority of recommendations are well-

formulated and evidence-based, it is surprising to see the use of intravenous aminophylline still promoted: it was removed from international guidelines many years ago and the lack of benefit has been well proven. Unlike the majority of the recommendations in these guidelines, the use of this drug is not accompanied by a supporting evidence level. Multiple studies have shown that it adds no value over the use of beta-agonists in acute management, including the fact that it provides no further bronchodilation above that achieved with beta-agonists. In addition, it increases the incidence of adverse effects when combined with bronchodilators.

To quote from the latest Cochrane review on the matter: ‘The use of intravenous aminophylline did not result in significant additional bronchodilatation compared to standard care with inhaled beta₂-agonists … or in a significant reduction in the risk of hospital admission. For every 100 people treated with aminophylline an additional 20 people had vomiting and 15 people arrhythmias or palpitations. No subgroups in which aminophylline might be more effective were identified.’

The continuation of maintenance oral theophylline appears reasonable, but the use of intravenous aminophylline has no therapeutic benefit, is associated with increased adverse events, and should be removed from the guideline. The international and local emergency medicine communities did so long ago.

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