- N Engl J Med 2001;345:1368-77.
- American Heart Association. Part 1: Introduction to the International Guidelines 2000 for CPR and ECC: a consensus on science. Circulation 2000;102: 1-11.
- Angus DC, Linde-Zwirble WT, Lidicker J, et al. Epidemiology of severe sepsis in the United States: analysis of incidence, outcome, and associated costs of care. Crit Care Med 2001; 29:1303-10.
- Levy M, Pronovost J, Dellinger RP, et al. Sepsis change bundles: converting guidelines into meaningful change in behavior and clinical outcome. Crit Care Med 2004;32(suppl):S595-7.

## Prehospital intubation for severe head injury

To the Editors: We greatly appreciated the detailed, yet succinct Journal Club summary by Topping and Ducharme<sup>1</sup> of Wang and colleagues' paper<sup>2</sup> on the deleterious association demonstrated by pre-hospital intubation in the seriously head-injured patient versus emergency department intubation of a similar cohort.

Topping and Ducharme¹ carefully defined the population studied; the quality of the database used; the methodology for analysis (including use of a propensity score); the challenges of a possible randomized controlled trial to further delineate causation versus the clear association that has been recently demonstrated

in several emergency medical services (EMS) intubation studies, including this one; and the lessons associated with unbridled enthusiasm for unproven yet seemingly common-sense interventions (i.e., pre-hospital intubation in significantly head-injured patients).

However, one key result from this large study<sup>2</sup> seemed to elude the reviewers. In Wang and colleagues' study one group of pre-hospital providers (air medical transport crews) who used neuromuscular blocking agents had decreased mortality demonstrated in the population studied. Although Wang and colleagues qualify clear conclusions in this regard by pointing out that these 2 elements were used as covariates in the overall regression analysis, the impression is clearly given that this is an area that needs further study before the brush of nihilism for endotracheal intubation in the EMS environment is finalized. Indeed, several EMS air medical studies (observational in nature), where a small cohort of highly trained crew members are given intensive training and reasonable ongoing critical care exposure, have demonstrated exceptional airway management skills.3,4 Wang and colleagues' findings are consistent with another recent study that also showed an association with improved outcomes using this air medical model.5

We feel that Wang and colleagues' suggestive data on air medical rapid sequence intubation management in the seriously ill head-injured patient deserves further consideration and is of key interest to EMS physicians and providers.

## John M. Tallon, MD David Petrie, MD

Division of EMS Department of Emergency Medicine Dalhousie University, Halifax, NS

## References

- Topping C, Ducharme J. Prehospital intubation for patients with severe head injury: More is not necessarily better. Can J Emerg Med 2006;8(2):116-8.
- 2. Wang HE, Peitzman AB, Cassidy LD, et al. Out-of-hospital endotracheal intubation and outcome after traumatic brain injury. Ann Emerg Med 2004;44 (5):439-50.
- 3. Sing RF, Rotondo MF, Zonies DH, et al. Rapid sequence induction for intubation by an aeromedical transport team: a critical analysis. Am J Emerg Med 1998;16(6):598-602.
- Ma OJ, Atchley RB, Hatley T, et al. Intubation success rates improve for an air medical program after implementing the use of neuromuscular blocking agents. Am J Emerg Med 1998;16(2): 125-7.
- 5. Davis DP, Peay J, Serrano JA, et al. The impact of aeromedical response to patients with moderate to severe traumatic brain injury. Ann Emerg Med 2005;46(2):115-22.

Letters will be considered for publication if they relate to topics of interest to emergency physicians in urban, rural, community or academic settings. Letters responding to a previously published CJEM article should reach CJEM head office in Vancouver (see masthead for details) within 6 weeks of the article's publication. Letters should be limited to 400 words and 5 references. For reasons of space, letters may be edited for brevity and clarity.

Les lettres seront considérées pour publication si elles sont pertinentes à la médecine d'urgence en milieu urbain, rural, communautaire ou universitaire. Les lettres en réponse à des articles du *JCMU* publiés antérieurement devraient parvenir au siège social du *JCMU* à Vancouver (voir titre pour plus de détails) moins de six semaines après la parution de l'article en question. Les lettres ne devraient pas avoir plus de 400 mots et cinq références. Pour des raisons d'espace et par souci de concision et de clarté, certaines lettres pourraient être modifiées.