

### Letters

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## Pathology practice

### in Canada

In their recent editorial, Kathy Chorneyko and Jagdish Butany made several excellent points about the challenges pathologists face, including human-resource shortages and the need for provincial governments to support quality-assurance efforts.<sup>1</sup> Their final recommendation was that a national body be created to oversee quality assurance and set national standards, among other roles. This recommendation, although worthy of consideration, is of uncertain value given the fact that several provincial and other groups already fulfill the roles that the editorialists proposed for their new national body.

Two critical aspects of pathology practice were not discussed in the editorial. First, clinical pathology was not mentioned. Medical biochemists, hematopathologists, medical microbiologists, molecular pathologists, cytogeneticists and other specialists in clinical pathology play vital roles in Canadian medicine. Discussions about human resources in pathology often focus on the practice of anatomic pathology; a broader view would be beneficial.

Second, and more importantly, the editorial did not address the greatest challenge affecting pathologists in Canada: the tendency by provincial governments and health administrators to view hospital-based pathology laboratories as cost centres rather than patient-care centres.<sup>2</sup> Laboratory resources, both human and financial, have been reduced again and again, following the recommendations of consultants obsessed with centralization and automation. Sadly, this continual

paring of laboratory budgets often leads directly to poorer quality care for Canadians, including misdiagnoses, miscommunications, medical errors, longer turnaround times for results and inappropriate therapies.

Canadians may well benefit from “an appropriately resourced national body to promote excellence in the practice of laboratory medicine,” as the editorialists suggested. However, without appropriately resourced laboratories, such a body would be nothing more than a well-dressed shell.

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**Competing interests:** None declared.

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## Tasers

My interest in Matthew Stanbrook’s editorial on tasers<sup>1</sup> was roused less by what Stanbrook had to propose than by the fact that *CMAJ* had finally thought fit to take up this issue. At the Toronto Police Services Board, the civilian governance body of the Toronto Police Service, we have grappled with the use and abuse of tasers for some time now.

Before we permitted limited deployment of conducted energy devices in Toronto, we asked the city’s medical officer of health to undertake a review and provide us with his advice. He has never received financial or other compensation from TASER International. He was cautious about offering advice in the absence of sufficient evidence, and he emphasized the need for more independent research on the risks and benefits of the use of tasers.

Ontario’s deputy chief coroner made an impassioned presentation to our

board, advocating the use of tasers. He assured us that his published, peer-reviewed research had shown that not a single death could be directly attributed to the use of tasers.<sup>2</sup> He said that the deaths associated with taser use were a result of excited delirium caused by other factors, such as drug use. My fellow members of the Toronto Police Services Board and I are not health care professionals; we believed that excited delirium was a valid medical condition until recently, when a coroner’s jury in Ontario called for further review of this condition. I hope that Stanbrook’s call for independent research will be heeded and that medical researchers will tell us whether to give any credence to the view that excited delirium is responsible for the deaths associated with taser use.

I do note, however, that in Toronto the use of tasers has not been associated with a single serious injury, let alone a death. We believe this is because we train our people well, have good guidelines for the use of tasers, monitor taser use very closely, publicly account for the number of times tasers are used and the location and circumstances of each use, and have emergency medical personnel monitor each person on whom a taser is used.

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**Competing interests:** None declared.

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## Electronic control devices

We are members of the TASER International Scientific and Medical Advisory Board, and we would like to comment on the recent *CMAJ* editorial on

tasers.<sup>1</sup> Essentially every implication of the editorial was either erroneous or misleading. Only 4 of the 16 references were from the medical literature; most of the rest were newspaper articles.

The implication that TASER International asserts that a TASER electronic control device has never contributed to a death is erroneous. There are at least 6 cases of deaths from head injuries resulting from falls in which an electronic control device may have contributed to the fall, and TASER International warns of this risk in its training materials. Aside from these cases, we stand by TASER International's position that electronic control devices have never directly killed anyone.

The statement that TASER International has sponsored "just about all" of the research on electronic control devices is erroneous; 12 of the 17 published peer-reviewed human studies had no funding from TASER International. (They cannot be listed here because of the *CMAJ's* space restrictions.)

The editorial stated that volunteers are almost never shocked in the chest or given sustained shocks. This was true in early studies but not in more recent studies.<sup>2,3</sup>

The editorial also stated that members of the TASER International Scientific and Medical Advisory Board attempt to hide their associations with TASER International. This is untrue, as demonstrated by a letter published in the *Journal of the American College of Cardiology*.<sup>4</sup>

The statement (referencing a newspaper article) that TASER International has sued researchers for publishing their scientific results is untrue. The newspaper article was about James Ruggieri, who claimed, not in a peer-reviewed journal but in a bulletin of a small trade group of professional expert witnesses, that there would be a 50% fatality rate with use of a TASER electronic control device, on the basis of mysterious measurements and calculations. He also suggested that patients with cardiomyopathy should not comb their hair, remove their clothing or walk across carpeting because a static shock might induce fibrillation.

TASER International and the City of Akron, Ohio, did jointly go to court

under a state law that allows for independent judicial review of the opinions of medical examiners. This court case concerned an extreme situation in which the medical examiner consistently (in 3 cases) ruled that the use of an electronic control device constituted homicide, leading to criminal charges against several sheriff's deputies. After a 4-day legal proceeding in which numerous experts testified (including 3 forensic pathologists and 2 cardiac electrophysiologists), the judge ordered striking of the electronic control device as the cause of death and homicide as the manner of death.

The implication that TASER electronic control devices are a risk factor for deaths from excited delirium is erroneous. The editorialist gives no reference for this speculation nor can he, as excited delirium was recognized as a condition long before electronic control devices were invented.<sup>5-7</sup> Even today, electronic control devices are involved in only a small minority of deaths from excited delirium.<sup>8,9</sup>

The implication that a defibrillator should be used to treat excited delirium is incorrect. When death occurs with this disorder, with or without the involvement of an electronic control device, the presenting rhythm is characteristically asystole or pulseless electrical activity.<sup>9-11</sup> Defibrillation reverses fibrillation and therefore has no clinical indication in cases of excited delirium.

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**Competing interests:** Mark Kroll, Richard Luceri and William Heegaard hold stock in TASER International. Mark Kroll and Michael

Graham have served as consultants for TASER International. Mark Kroll has received travel assistance from TASER International for attending medical conferences. Hugh Calkins receives a nominal fee for serving on the Scientific and Medical advisory board of TASER International. Richard Luceri is a paid board member of TASER International and has received travel assistance for attending board meetings. William Heegaard has received travel assistance to attend a scientific medical advisory board meeting and has been paid for medical advice about conducted electrical devices.

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## Hypertension in children and adolescents

We read with great interest the recent article by Karen Tu and colleagues concerning the prevalence of hypertension in adults aged 20 years and older.<sup>1</sup> The authors' estimate for 1995–2005 in Ontario was considerably higher than the recent estimate by Kearney and colleagues of a 24% relative increase in the prevalence of hypertension from