

Preventing spinal cord injuries: Is this the best we can do?

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Fans of the Montreal Canadiens need no reminder that hockey is a dangerous sport. This season, an unprecedented number of serious injuries have afflicted the team. There is no obvious explanation for this “epidemic,” although some observers have the impression that professional hockey has become steadily more dangerous because the players are now bigger, stronger and faster while the arenas have remained the same size (R. Amonte, Professional Services representative, CCM The Hockey Company, St-Jean-sur-Richelieu, Que.: personal communication, 2000). The paper by Tator and colleagues elsewhere in this issue¹ is a useful reminder that our national sport may also be an important cause of catastrophic injury among nonprofessional, mostly young, players. Beyond doubt, spinal cord injuries are devastating, and whether they arise from jumping on a trampoline, diving or playing hockey, every reasonable step must be taken to prevent their occurrence. To learn that there have been close to 250 such injuries in the past 30 years is shocking.

It is not possible to comment on this paper, however,

without taking issue with some of the points that the authors make. The case for more or better registries as a solution is not convincing. It is important that we know the number of injuries of any particular type only if this permits us to do something to prevent that injury more effectively or more rapidly. Nothing in this paper points to any such potential for preventive action. Moreover, the data presented make it difficult to determine if the rate is increasing or, as the numbers suggest, decreasing. Nevertheless, if we know how to make hockey safer, we should do so. Thus, if there is “increasing public concern” in Canada — as there should be — one step, based on the data reported, might be to make board checks and checks from behind illegal. At the very least, we ought to know how stringently existing regulations are applied. Another step would be to fund studies that resolve whether better equipment encourages some players to take greater risks.²

The sharp differences in injury rates between Ontario and other provinces, especially Quebec, were not ex-

plained. But we must leap on this clue to determine why the difference exists! Other data based on identical surveys indicate that Quebec has a much lower rate of hockey injuries of all kinds than Ontario (73 per 1000 players v. 135 per 1000 players). It seems reasonable to assume that in part this may be due to the fact that at the peewee level body-checking is permitted in Ontario but not in Quebec. Similarly, in 1988 Quebec imposed the use of full-face protectors for adult recreational hockey players; 1 year later the use of full-face protectors rose from 25% to 88% with a corresponding reduction in eye injuries. There are several other safety initiatives arising from the Régie de la sécurité dans les sports du Québec, a body that, so far as I am aware, has no counterpart in Ontario (C. Goulet, Quebec Sports Safety Board, Trois Rivières, Que.: personal communication, 2000).

The authors suggest a need for improved surveillance, but we also need better data, more analyses, and mechanisms and resources to follow through on the findings. Some of the missing information could be obtained from more in-depth interviews with injured players. Existing data even from an admittedly imperfect system already give age and level of competition. We need to obtain other information to provide estimates of how many young people play hockey, how often and at what level, which would provide reasonable proxies for the elusive denominator — exposure.

This is not to say that better surveillance is unimportant. But “better” means that it must include features that are critical for injuries, and these are not the same as the features that apply for infectious diseases, where timeliness is essential. Although it would be wonderful to be alerted rapidly to new dangers, far more important for injury databases would be free-text fields to describe what happened and how the injury occurred. No amount of coding of circumstances can replace such verbatim accounts. Except in unusual geographic situations, it is unlikely and perhaps unnecessary that injury surveillance be population based. Pickett and colleagues³ have shown that the Canadian Hospitals Injury Reporting and Prevention Program, which is usually not population based, yields the same ranking of injuries as other, population based, sources of information. Nor is it essential that every injury be identified; sampling visits to emergency departments may be sufficient.⁴

If better surveillance systems are to be a key component in preventing these devastating injuries, government support will be required. As I have written before,⁵⁻⁸ injuries constitute a major health problem that demands federal leadership. It would be the height of foolishness if each province were to collect data about injuries in a different manner. We could not then pool or compare them. It would be equally wrong to have different systems for spinal cord injuries and injuries involving the head, eyes or any other body part.

The paper by Tator and colleagues, flawed though it may be, is troubling because it represents just the tip of the iceberg. Hockey is only one of many dangerous sports and other situations in which serious injuries occur that are not systematically recorded. Most health officials care little about such issues and do not confine their indifference about injuries to those sustained in hockey games. More research, surveillance and, above all, action are as neglected by most provinces as they are by the federal government.

We need to do more. It is encouraging that the Advisory Committee on Population Health, composed of deputy provincial health officers, appears to have finally convinced Ottawa to take injuries more seriously. Health Canada recently announced the creation of a secretariat for injury prevention and control in the Health Protection Branch.⁹ Whether this means that the federal government will provide resources commensurate with the magnitude of the problem remains to be seen. But if this paper is the best that a group of dedicated professionals can do to get a handle on spinal cord injuries from hockey, it should send an alarm signal to Ottawa. In 2002 Montreal will host the 6th International Conference on Injury Prevention and Control. Most of the previous host countries have been able to point with pride to national programs that demonstrate their commitment to conquering this tragic and costly health problem. Time is quickly running out, but it is not too late for Canada to avoid embarrassment by mounting a serious public health initiative to prevent these and other devastating injuries.

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Competing interests: None declared

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