the prevention of ischemic stroke (110 mg or 150 mg of dabigatran vs warfarin)[3] and having the same rate of serious hemorrhage (including intracranial hemorrhage) as warfarin.[2]

You are absolutely correct, Dr Spithoff. It is time to say no!

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Competing interests
Dr Trusler is Vice President of INR Online Canada Limited, a not-for-profit Canadian company dedicated to the improvement of warfarin management in Canada.

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Pediatric concussion guidelines

I wanted to commend the editors of *Canadian Family Physician* for the focus on pediatric concussion in the recent June issue.[1-4] Persistent concussion affects quality of life across many domains: impaired cognition; impaired memory and attention, affecting school attendance and performance; low mood and decreased social engagement; and reduced peer contact due to removal from sports or recreational activities. A retrospective chart review of a family and sports medicine physician's office[3] and a survey of 2 Toronto community teaching hospitals[4] emphasized the importance of implementing stepwise return-to-learn and return-to-play approaches. Authors from both articles commented that there is a need for clear management plans to facilitate recovery following concussion. Further, Garcia-Rodriguez and Thomas[2] reviewed the current literature to suggest possible validated tools in order to assess child and adolescent concussion. Finally, in a thoughtful commentary, Carson and colleagues emphasized the need to implement best practices.[1] I wholeheartedly agree.

In fact, the Pediatric Emergency Research Canada Concussion Team released the first comprehensive pediatric concussion guidelines on June 25, 2014.[5] These pediatric guidelines were developed by an expert panel including more than 30 members from Canada and the United States and were sponsored by the Ontario Neurotrauma Foundation. The team for this project included representation from the full spectrum of pediatric health disciplines (emergency medicine physicians, family practitioners, neurologists, rehabilitation professionals, etc). The team reviewed more than 4000 academic papers, and over the course of 2 years created the first comprehensive pediatric concussion guidelines for health care professionals, parents and caregivers, and schools or community sports organizations.

These new guidelines[5] provide a "one-stop shop" for busy health care providers by employing evidence-based recommendations to standardize the diagnosis and management of concussion in children aged 5 to 18 years old, from the initial assessment through to the period of recovery (which might last months). Furthermore, it fills a need to standardize the reintegration into school and social activities, both of which are crucial to children and adolescents during formative years.

The guidelines include numerous tools and clear instructions for all levels of users. For the family physician or the emergency department physician, algorithms are provided to guide the decision whether or not to obtain computed tomographic scans, and examples of written discharge handouts for the patients and families are included. For family physicians and

nurse practitioners managing persistent symptoms in the community, the guidelines provide recommendations for monitoring and managing ongoing symptoms, and the available decision tools help navigate return to learn and return to play. The guidelines also include templates for "doctor letters" to the school describing recommended level of activities to facilitate communication with the school. For family physicians that advise coaches, parents, and teachers, the guidelines provide resources they can share with coaches and school boards in order to improve the whole community response to concussion recognition and management. I believe these guidelines address the current gap in the literature that is emphasized in the conclusions of both Stoller and colleagues' survey[4] and Carson and colleagues' chart review.[3]

I completely agree that family physicians are the cornerstone of improving the management of pediatric and adolescent concussion. While no large epidemiologic studies have determined the true prevalence of pediatric concussion and of persistent postconcussive symptoms (PCS), children appear to be at higher risk than adults for PCS. In fact, rather than the often-quoted rate of 10% to 20% at 7 to 10 days, the incidence of PCS is likely closer to 30% at 1 month in children and adolescents,[6] but I am optimistic that we will soon be able to predict which children might still have symptoms at 1 month.[7] With consistent application of management based on best evidence using comprehensive guidelines, perhaps the effects of concussion and PCS on children and adolescents can be reduced.

The guidelines are free and available at **www.onf.org/documents/guidelines-for-pediatric-concussion** and **www.concussionsontario.org/guidelines-for-pediatric-concussion**.

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Competing interests
None declared

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