

Advancing Gastroenteritis Care Through Cross-border Comparisons

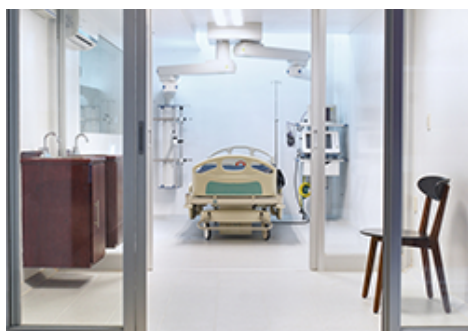
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The road to high-quality, high-value care is never straightforward. But maybe comparing care across countries can help us get there sooner.

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The road to high-quality, high-value care is never straightforward. But maybe comparing care across countries can help us get there sooner. In this month's *Pediatrics*, Freedman et al ([10.1542/peds.2020-030890](#)) published a comparison of clinical outcomes between two very similar trials of probiotics in children presenting to the emergency department (ED) with gastroenteritis. By taking advantage of a similar timeframe and methodology, they intentionally sought to compare key clinical

outcomes like unplanned returns to the ED and use of intravenous (IV) fluids. Interestingly, children with gastroenteritis in Canada who present to the ED are less likely to get IV fluids than children in the United States (US). They are also less likely to get ondansetron in the ED or at discharge, but significantly more likely to return to the ED within 7 days (12% vs 7%).

But before you start bragging about the great care in the US, children in the US were significantly more likely to be admitted from their initial visit and we all know that IV placement and IV fluids aren't without complications. As Baker and Eisenberg note in an accompanying commentary ([10.1542/peds.2021-050436](#)), "more frequent use of IV rehydration in the US did not result in improved outcomes with respect to repeat visits, and that the US EDs and providers could further limit use of IV rehydration without increasing adverse outcomes."

So, what can we learn by comparing these 2 studies and their outcomes? First, even though both countries have guidelines promoting the use of oral rehydration therapy (ORT) as a first line of treatment use for gastroenteritis in the ED, the US clearly could do a better job of reducing IV fluids. Baker and Eisenberg note that ORT has many benefits including "lower cost, eliminating need for an IV catheter to be placed, shorter ED and hospital stays, improved parental satisfaction, and empowering parents to continue therapy at home." But clearly that message isn't reaching parents and physicians in US EDs. It would be helpful to learn what our Canadian colleagues are doing to promote ORT use in the ED. The second take home is the

benefit of giving ondansetron in the ED and a prescription for home use. Clearly this message hasn't reached providers in Canada, as the use of this anti-vomiting medication was very low and their 7-day return to ED rate was significantly higher than the US, presumably due to persistent vomiting.

We all want to provide the best care for children, especially sick children. The combination of ORT and ondansetron might be the best combination to provide both quality and value for the treatment of gastroenteritis in the ED. But for now, it looks like we have work to do both north and south of the border. I'm hopeful this isn't the last comparative study we will see to promote best practices in providing high value care.

- [Antiemetics in Children With Acute Gastroenteritis: A Meta-analysis](#)
- [Reduction in Resources and Cost for Gastroenteritis Through Implementation of Dehydration Pathway](#)
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