**Plenary Oral Presentations**

**PL01**  
Multicentre before-after implementation study of the Ottawa subarachnoid hemorrhage strategy  
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**Introduction:** The Ottawa SAH Rule was developed to identify patients at high-risk for subarachnoid hemorrhage (SAH) who require investigations within 6 hours of headache onset. Together, they form the Ottawa SAH Strategy and its 2) Impact on: a) CTs, b) LPs, c) ED length of stay, and d) CT angiography (CTA).

**Methods:** We conducted a multicentre prospective before/after study at 6 tertiary-care EDs January 2010 to December 2016 (implementation July 2013). Consecutive alert, neurologically intact adults with a headache peaking within one hour were included. SAH was defined by subarachnoid blood on head CT (radiologists final report); xanthochromia in the cerebrospinal fluid (CSF); normal: 2 unruptured aneurysm on CTA and presumed traumatic LP (95% CI: 98-100%), and the 6-Hour CT Rule was 95.3% (95% CI: 0.77, 1.46; P = 0.72). After adjustment for site, age, and frequency of vomiting and diarrhea, treatment assignment did not predict moderate-severe disease (OR, 1.11; 95% CI, 0.80 to 1.56; P = 0.53).

**Results:** Moderate-severe disease occurred in 108 (26.1%) participants administered probiotics and 102 (24.7%) participants allocated to placebo (OR 1.06; 95% CI: 0.77, 1.46; P = 0.72). In the probiotic versus placebo groups, there were no differences in the median duration of diarrhea [52.5 (18.3, 95.8) vs. 55.5 (20.2, 102.3) hours; P = 0.31], vomiting [17.7 (0, 58.6) vs. 18.7 (0, 51.6) hours; P = 0.18], physician visits (30.2% vs. 26.6%; OR 1.19; 95% CI 0.87, 1.62; P = 0.27), or adverse events (32.9% vs. 36.8%; OR 0.83; 95% CI 0.62, 1.11; P = 0.21).

**Conclusion:** In children presenting to an emergency department with gastroenteritis, twice daily administration of 4.0 x 10⁹ CFU of a Lactobacillus rhamnosus/helveticus probiotic does not prevent development of moderate-severe disease or improvements in other outcomes measured.

**Keywords:** probiotic, diarrhea, pediatrics

**PL02**  
Probiotic regimen for outpatient gastroenteritis utility of treatment (PROGUT) study: a multicenter randomized controlled trial  
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**Introduction:** Gastroenteritis accounts for 1.7 million emergency department visits by children annually in the United States. We conducted a double-blind trial to determine whether twice daily probiotic administration for 5 days, improves outcomes. Methods: 886 children aged 348 months with gastroenteritis were enrolled in six Canadian pediatric emergency departments. Participants were randomly assigned to twice daily Lactobacillus rhamnosus R0011 and Lactobacillus helveticus R0052, 4.0 x 10⁹ CFU, in a 95:5 ratio or placebo. Primary outcome was development of moderate-severe disease within 14 days of randomization defined by a Modified Vesikari Scale score ≥9. Secondary outcomes included duration of diarrhea and vomiting, subsequent physician visits and adverse events. Results: Moderate-severe disease occurred in 108 (26.1%) participants administered probiotics and 102 (24.7%) participants allocated to placebo (OR 1.06; 95% CI: 0.77, 1.46; P = 0.72). After adjustment for age, sex, and frequency of vomiting and diarrhea, treatment assignment did not predict moderate-severe disease (OR, 1.11; 95% CI, 0.80 to 1.56; P = 0.53).

**Results:** Moderate-severe disease occurred in 108 (26.1%) participants administered probiotics and 102 (24.7%) participants allocated to placebo (OR 1.06; 95% CI: 0.77, 1.46; P = 0.72). In the probiotic versus placebo groups, there were no differences in the median duration of diarrhea [52.5 (18.3, 95.8) vs. 55.5 (20.2, 102.3) hours; P = 0.31], vomiting [17.7 (0, 58.6) vs. 18.7 (0, 51.6) hours; P = 0.18], physician visits (30.2% vs. 26.6%; OR 1.19; 95% CI 0.87, 1.62; P = 0.27), or adverse events (32.9% vs. 36.8%; OR 0.83; 95% CI 0.62, 1.11; P = 0.21).

**Conclusion:** In children presenting to an emergency department with gastroenteritis, twice daily administration of 4.0 x 10⁹ CFU of a Lactobacillus rhamnosus/helveticus probiotic does not prevent development of moderate-severe disease or improvements in other outcomes measured.

**Keywords:** probiotic, diarrhea, pediatrics

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**Abbreviations:**  
PL = Plenary; LO = Lightning oral; MP = Moderated poster;  
P = Poster  
*Corresponding authors are underlined.