**Evaluating liquid omeprazole for children: a matter of taste**

**Sejal R Ranmal1, Elisa Alessanrini1, Catherine Tuleu1**

**1UCL School of Pharmacy, University College London, London, United Kingdom**

**Background:**

Omeprazole is a widely used proton pump inhibitor for gastric acid-related disorders in children. The need for liquid omeprazole formulation is often met through pharmaceutical compounding. However different products (flavour, solution vs suspension, dose-volume) have been licensed lately in UK. Palatability being a key factor that affects patients’ acceptability, and, in turn, adherence and treatment outcomes, this study focuses on assessing the palatability of compounded and commercial liquid omeprazole formulations available in the UK, intending to guide HCPs in selecting the most palatable options for patients.

**Methods:**

A single-blind, randomised sensory evaluation study (UCL REC 4612/037) was conducted on thirty adult participants to assess six omeprazole formulations: one was compounded 2 mg/mL 8.4% sodium bicarbonate oral suspension) and the other five were licensed formulations (Glenmark Pharmaceuticals Europe Ltd 10 and 20mg/15mL oral solution; Rosemont Pharmaceuticals Limited 1 and 2 and 4mg/mL powder for oral suspension). Participants (n=24) consented to evaluate (“swirl and spit” method) each 10mg sample and to rate taste, smell and mouthfeel immediately and afterwards on a continuous visual analogue scale. The overall sensory experience and acceptability of each sample were rated on a 5-point discrete facial scale with optional open comments.

**Results:**

The compounded 8.4% sodium bicarbonate suspension had a significantly more aversive, unpleasant taste and aftertaste than all the licensed omeprazole formulations. The five licensed formulations were perceived as mild to moderately aversive by participants, and among these, the 10mg/15mL menthol-flavoured oral solution received the lowest taste aversiveness rating and highest acceptability rate.

**Conclusions:**

There are clear differences in palatability between compounded and licensed liquid omeprazole formulations, with licensed products generally favoured for their better taste and overall acceptability. This highlights the critical role of taste in the development and prescription of pediatric medicines. Market feedback from children would be interesting to confirm the present data.