**Establishment of a panel of taste assessors to evaluate the taste acceptability of novel paediatric medicines during the development phase**

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**Background and aims.** The taste acceptability of paediatric medicines should ideally be evaluated using child taste panels. However, due to significant ethical and administrative barriers, taste panel comprising young adults is an acceptable alternative. This study aimed to test the feasibility of a protocol to train young adult taste assessors to provide discriminatory and reproducible taste data for paediatric medicines during the preclinical development phase.

**Methods.** The protocol was approved by the University of Western Australia Human Research Ethics Committee (2024/ET001024). Healthy volunteers, aged 18 to 30 years old, were pre-screened for their ability to detect and differentiate four tastes of medicines (bitter, sour, metallic and astringent) and correctly rank the bitterness intensity of quinine solutions. They participated in a one-day workshop where they were trained to use an 11-point Visual Analog Scale to provide taste scores, and to develop sensory memory of the tastes of 4 reference quinine solutions. On the next day, the participants provided taste scores for the reference solutions provided blind in duplicates in 2 test sessions. Taste scores were analysed statistically to determine taste discriminatory ability, repeatability and reproducibility.

**Results.** The pilot study recruited thirteen participants, and eleven passed the screening tests and attended the one-day training workshop. Five participants showed acceptable taste discrimination for the reference quinine samples of different concentrations. Three of the five participants also showed low residual standard deviations when tested for consistent scoring for reference samples of the same concentration, as well as high similarity percentage with the actual scores of the reference samples. The three participants met the criteria for selection as taste assessors to evaluate novel paediatric medicines in the development phase.

**Conclusion.** The protocol is useful for selecting young adult taste assessors to provide discriminatory, repeatable and reproducible taste scores for medicinal formulations.