

Go with the Flow; Measuring the Flow Rates of Bottle Teats

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Abstract

Purpose: To test the flow rates on a range of bottle teats to better support infants who have feeding difficulties.

Method: This methodology was piloted and the full study aims to complete an extensive evaluation of teat flow rates. For the pilot study bottle teats from a range of common brands were attached to a breast pump for 1 min on a standard express setting. Each bottle was filled with 100 ml of milk, and attached to the breast pump for 1 min, 3 times. The volume of milk expressed per minute was recorded, and an average was taken over the 3 trials, to establish a comparison between brands and flow rates. We will complete this study fully to test a wider range of teats. The results will be ready for presentation in December 2017.

Results: There was little difference in the volumes of milk expressed in the within teat comparison, indicating the intra-reliability for this method was adequate. When comparing tests against other brands; there was marked variability between brands classed as a slow-flow and size 1. The difference was 11 ml/min between the slowest (4 ml/min) and fastest (15 ml/min). There was also marked variability in the flow rates between the size 2/3/4 teats (medium – fast flow) indicating little standardization in the market.

Conclusion: These results can be used to inform professional recommendations on flow rates. Further research is needed to better understand the impact of different flow rates on an infant's swallow and feeding skills.

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