**Bacillus cereus as a Major Cause of Discarded Pasteurized Human Banked Milk: A Single Human Milk Bank Experience**

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Abstract

A systematic study, performed from 2017–2020 looked at the rate of positive post-pasteurization B. cereus findings, the quantity of B. cereus in pasteurized banked human milk (PBM), and the rate of B. cereus toxicogenic isolates from PBM. During the study period, 6815.71 L (30,943 tested bottles) of PBM were tested, with an average amount per year of 1703.93 L (7736 tested bottles). The PBM discard rate per year due to bacterial contamination varied between 8.7–10.0% and contamination with B. cereus was the most frequent reason. The total number of B. cereus positive tests was 2739 and the proportion of its positivity from all positive tests was between 56.7–66.6%. The prevalence of B. cereus positive tests rose significantly in the summer months. The production of enterotoxin was found in 3 of the 20 tested samples (15.0%). The B. cereus CFU-quantities in the PBM were below 10 CFU/mL in 80% of cases (16 of 20 samples tested). The quantitative data can be used in the risk assessment of cold storage of PBM at temperatures above zero and manipulation of PBM prior to its administration

Keywords: Bacillus cereus; human milk; pasteurization; risk assessment

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