

## Increasing the dose of mothers' own milk in the NICU: A quality improvement approach

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The benefits of breastfeeding for both infant and mothers are well established,<sup>1</sup> and hence World Health Organization (WHO) guidelines recommend exclusive use of human milk for all infants, particularly preterm infants.<sup>2,3</sup> The importance of human milk, particularly own mother's milk (OMM), is even more profound for infants in the Neonatal Intensive Care Unit (NICU). Uninterrupted availability of OMM is key to supporting exclusive OMM feeding in NICUs, and a number of evidence-based lactation best practices exist to improve the availability of OMM. These include early expression (within 3 hours after birth),<sup>3,4</sup> frequent expression (every 2-3 hours, aiming for 8 or more in 24 hours),<sup>5,6</sup> and effective expression (double pumping with a hospital-grade electric breast pump).<sup>5,7,8</sup>

Quality improvement (QI) initiatives have been shown to be effective in increasing the amount of human milk and improving breastfeeding in hospitalized infants.<sup>5,9,10</sup>

At the NICU of Fernando Fonseca Hospital, we adopted a quality improvement approach that was designed to improve doses of OMM received by infants (mainly in the first 14 days of life). The quality improvement initiative was a two-stage process: phase 1 (baseline assessment of OMM dose), phase 2 (intervention – improvement and measurement of key lactation practices). Early, frequent and effective breast milk expression and increased access to breast pumps were implemented.

Coincidentally, the project was developed at the same time as COVID-19 pandemic, which allowed the opportunity to assess the impact of COVID-19 on lactation practices and OMM doses.

Mean dose of OMM increased post-intervention, however this then decreased during the pandemic. These data show that substantial improvements in the dose of OMM can be achieved by implementing evidence-based lactation practices. However, measures aimed at reducing COVID-19 infection risk had an unintended negative impact on OMM dose and expression practices.

### References

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