

# Time to first expression

## What is time to first expression?

The time between delivery and a mother's first pumping session.

For healthy term infants who have normal births the first breastfeed should occur within the first hour.<sup>1</sup>

The focus of this measure is early pumping, within 3 hours of delivery. Reasons for any delay (>3 hours) should be documented.

## Why is time to first expression important?

Early breast stimulation (feeding or pumping) after birth has significant impact on future milk supply and subsequent feeding outcomes.<sup>2-7</sup>

Studies highlight that NICU mothers who initiate pumping within 3 hours after birth significantly reduce the time to secretory activation (milk 'coming in') and have higher daily and cumulative milk volumes over time.<sup>3-6</sup> Mothers are also more likely to be pumping at 6 weeks and when infants are discharged from NICU.<sup>3-6</sup>

## How to implement?

Develop / revise milk expression protocols that:

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| <ul style="list-style-type: none"> <li><input type="checkbox"/> support mothers whose infants cannot breastfeed in the first hours or have a poor, ineffective breastfeed to commence pump expression within 3 hours of birth</li> <li><input type="checkbox"/> recommend to double pump with a hospital-grade pump</li> <li><input type="checkbox"/> endorse the use of research-based initiation technology</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> ensure mothers are taught and assisted to:               <ul style="list-style-type: none"> <li><input type="checkbox"/> use breast massage during pumping</li> <li><input type="checkbox"/> use hand expression after pumping in this early phase</li> </ul> </li> <li><input type="checkbox"/> provide easy access to pumps, personal pump kits and collection containers in all relevant maternity and nursing wards to expedite timely milk expression</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> support regular staff education on the importance of the milk production journey</li> <li><input type="checkbox"/> address potential changes in staffing strategies which may be necessary to overcome barriers.<sup>1</sup></li> </ul> |
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## How to audit?

Strategies to measure best practice include:

- Hospital protocols detailing expression within 3 hours of birth
- Recording time to first expression after birth
- Tracking percentage of mothers expressing within 3 hours of birth and analysing reasons for delay (> 3 hours)

Auditing records on a monthly basis:

- Highlights recent progress and can enhance motivation within the organisation to continue with quality improvement measures.
- Shows where changes are still required and allows for timely implementation of further education to staff for continuous improvements in clinical practice.
- Allows barriers to be identified and addressed.

**References:** **1** WHO, UNICEF. Global strategy for infant and young child feeding. Geneva: World Health Organization; 2003. 1-30 p. **2** Spatz DL et al. J Perinat Educ. 2015;24(3):160-170. **3** Parker LA et al. J Perinatol. 2012; 32(3):205-209. **4** Parker LA et al. Breastfeed Med. 2015; 10(2):84-89. **5** Parker LA et al. FASEB J. 2017; 31(1 Suppl):650.19. **6** Parker LA et al. J Perinatol. 2020; 40(8):1236-1245. **7** Meier PP et al. Clin Perinatol. 2017; 44(1):1-22.