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BREASTFEEDING THE PREMATURE INFANT IN A HIGH TECH NICU ENVIRONMENT: THE SWEDISH EXPERIENCE

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Breastfeeding rates for preterm infants at discharge in Sweden are nearly the same as in healthy term infants, but the duration is shorter. At 2 months corrected age the breastfeeding rate in very preterm (VPT) infants was 79 %, at 4 months 62 %, at 6 months 45%, at 9 months 22 % and at 12 months 12 %.

C ommon misconceptions: Even today you often see statements that preterm infants are unable to coordinate sucking, swallowing and breathing until 32-34 weeks, show inefficient, dysfunctional sucking, need routine oral motor stimulation and assessment before introduction of breastfeeding. These ideas were based on results in studies of bottle-feeding, which were wrongly inferred on breastfeeding; start of oral feeding is delayed - a self-fulfilling prophesy.

Feeding guidelines must be based on evidence: The development of preterm infants' oral-motor competence was studied, using the Preterm Infant Breastfeeding Behavior Scale, PIBBS) and test-weighing. 71 mothers of infants born at 26-35 weeks provided 4,300 PIBBS records. Criteria for initiation: Weaned from ventilator/CPAP, no severe instability (not GA, PMA, age, test…) from 27 weeks. No restrictions in frequency or duration of breastfeeding sessions. At 28 w: Obvious rooting, efficient latch, staying fixed at breast for ≥15 min; 31 w: repeated swallowing; 32 w: repeated long sucking bursts (>10 sucks) and long bursts (≥30 sucks). A mature sucking pattern was not needed for exclusive breastfeeding, which was attained from 33 w. Breastfeeding at discharge: 94 % (exclusive 80 %, partial 14 %) with variable intake patterns: frequent small volumes or long intervals and very large volumes.

Supportive factors: A trustful mother-NICU staff relationship has positive effects on breastfeeding. Guidance to mothers according to the Newborn Individualized Developmental Care and Assessment Program (NIDCAP) contributes to sensitive mother-infant interaction during breastfeeding. Swedish VPT dyads that spent more time in KMC per day had longer breastfeeding duration.

Feeding methods: Long delays of introduction and slow advancement of enteral feeding is common.

In Uppsala, enteral feeding is introduced by 2 h after birth/after emergency procedures, 2-hourly feeding is routine for all infants. Cup feeding is 1st choice alternative oral feeding method from 29 w. Volumes are increased rapidly, also in SGA infants, >200 ml/kg/d on day 3; but this proactive feeding regimen had no long term effects on growth.

Mothers are offered choice of strategy for reduction of supplementation (tube, cup

(A) Test weighing before/after nursing: supplementation is reduced based on the infant's intake at the breast; (B) Supplementation is reduced step by step (no weighing). The infant is weighed daily/2-3:e days; (C) Schedule for gradual reduction of volumes (X days ahead). Test-weigh or "clinical indices": likely earlier attainment of full breastfeeding and earlier discharge with test weighing. Test weighing help or harm? – Mothers may perceives it as (a) helpful and sense nursing as an expression of relationship, (b) breastfeeding a duty, focus on nutrition, fear of failure Ð Let the mother decide!

Transition from scheduled feeding (volumes, intervals) to demand breastfeeding

In the Uppsala all infants are initially fed 2-hourly. Semi-demand breastfeeding (no fixed volumes/intervals) is introduced at signs of certain milk intake: a daily total volume/total volume of supplementation is prescribed. The mother offers the breast often based on the infant's discrete signals of waking up/ interest in sucking and also after a certain interval to attain frequent feeds + supplementation is given as required. Demand breastfeeding = Based on infant's rooting behavior. From around 37 w (brain maturation).

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