

## RELATIONSHIP OF OPEN CRIB WEANING TO FULL ORAL FEEDING AND DISCHARGE DATE FOR THE PREMATURE INFANT

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**Objective:** To evaluate the relationship between the time of weaning to an open crib to the achievement of full oral feedings and time to discharge for premature infants less than or equal to 34 weeks gestation at birth.

**Background:** The premature infant must be weaned from a thermoregulated environment to an open crib in order to prepare for discharge. In addition to achieving successful transition to an open crib, a premature infant must also achieve feeding milestones to full oral feeds and meet all discharge criteria. Various studies have been done on the neutral thermal environment for the premature infant, and results of these studies form guidelines for the transition of these infants to an open crib. Several studies suggest weaning based on current weight and not gestational age.

**Methods:** We retrospectively analyzed data on 2244 premature infants born at 34 weeks gestation or less that were in an isolette prior to weaning to an open crib. Data was obtained by a clinical database for all patients. These patients were at 258 hospitals throughout the country managed by Paidos Health Managements Services. Weaning protocols were individual hospital-based but adherence to a standard guideline was recommended that supports weaning to an open crib based on current weight and weight gain rather than gestational age for premature infants > 1 week of age.

**Results:** Infants were weaned to an open crib prior to achieving full oral feedings in 98.2% of the cases (n=2203). The achievement of weaning to an open crib occurred an average 2.45 days prior to achievement of full oral feedings and 8.61 days prior to discharge. We then analyzed the subgroups of premature infants and the results are the following:

|                       | ≤ 29 weeks (n=487) | 30-34 weeks (n=1757) | All infants ≤ 34 weeks |
|-----------------------|--------------------|----------------------|------------------------|
| Average GA at birth   | 27.11              | 32.59                | 31.40                  |
| Average birth weight  | 1013               | 1875                 | 1688                   |
| GA at open crib       | 35.09              | 34.61                | 34.72                  |
| GA at full oral feeds | 36.01              | 34.81                | 35.07                  |
| GA at discharge       | 37.21              | 35.60                | 35.95                  |

**Conclusions:** The majority of premature infants are weaned to an open crib prior to achieving full oral feeding status. Nurses are the primary determinant in both weaning to an open crib and feeding advancement for premature infants. Inappropriate delay in weaning to an open crib will likely be followed by delay in reaching full oral feeding and discharge. Increased awareness of this relationship in nursing practice is helpful in preparing for appropriate discharge.