**Introduction:** Early colostrum and skin to skin to improve breast milk feeding in VLBW Infants

The beneficial effects of breast milk feedings in very low birth weight infants and preterm infants are well documented. Early colostrum feeds and skin to skin have shown to increase duration of breast milk feeds in newborns. Despite the known benefits of breast milk feeds for high risk preterm infants, many barriers still remain for the preterm infants to receive mother’s own breast milk. We initiated a quality improvement project to support NICU mothers to improve the duration of breast milk feeding in their preterm infants.

**Methods:** Infants with birth weight <=1500g born and admitted to Santa Clara Valley Medical Center (SCVMC) NICU from January 2013 to December 2015 were included. An ongoing family centered, multidisciplinary approach was used to improve mother’s own breast milk feeds in all eligible infants. This included education to nursing staff on the science of human milk, lactation, and breastfeeding; 5 day lactation educator certification course for all maternal child health staff including nurses and providers; comfortable reclining chairs for NICU mothers to hold their infant skin to skin; and optimal clinical documentation of skin to skin practice in the infant’s electronic health record. The primary outcome was
any breast milk feeding at discharge and the process measures were timing of colostrum skin to skin, and initiation of breastfeeding. Data were collected by chart review.

**Results:** In the 119 infants included in this study, the time to first oral colostrum was 7.7 hours (0.2 – 182), the number of colostrum administration in the first two days was 5 times (0 – 15), the age to first skin to skin was 4.3 days (0.01 – 50), the duration of skin to skin was 60 minutes (5 – 150), and the corrected gestational age at the first breastfeeding was 33.5 weeks (27.4 – 42.3) The time to first skin to skin increased significantly from our baseline of 6.9 days in 2013 to 2.4 days in 2015. The infants with breast milk feeding at discharge increased from 71% in 2013 to 89% in 2014 and 85% in 2015.

**Conclusion:** With our family centered, multi-disciplinary approach, we were able to improve our skin to skin practice. Our future goals include initiating colostrum within 1 hour after birth to improve production of milk volume. We will also be introducing earlier initiation of breastfeeding with the goal at 32 weeks so that the first feed should be at breast.