Can Preterm Babies Catch Up Like Full Term babies in Oral Feeding?
Ling KM(1), Chu MLM(1), To YK(1), Wong MSR(2), Wong SCM(2), Lee WM(2), Yeung SYM(2)
(1)Occupational therapy department, Queen Mary Hospital, (2)Department of Paediatrics & Adolescent Medicine, Queen Mary Hospital

Keywords:
Preterm babies
Oral motor training
Nutrition pathway
Very low birth weight babies
NICU

Introduction
A nutrition pathway for very low birth weight babies (below 1500gm) was introduced in Queen Mary Hospital Neonatal Intensive Care Unit in 2015. All babies in nutrition pathway were referred to Integrated Developmental Care Intervention Protocol (IDCP). Occupational therapists would perform oral motor assessment and training for babies when they were medically stable at Post Menstrual Age (PMA) 32weeks 1day. All babies after achieving full oral feeding for 24 hours would be considered for discharge from oral motor training program unless babies still have feeding problems.

Objectives
Review the feeding performance of premature babies at different feeding milestones

Methodology
All very low birth weight babies (below 1500gm) in nutrition pathway in QMH were recruited. Oral motor assessment (Non Nutritive Sucking, NNS) was carried out to babies who were at PMA 32weeks medically stable without invasive ventilation. Then daily oral motor stimulation started in weekdays except public holidays. Therapist performed oral feeding trial (Nutritive Sucking, NS) once babies were ready in the daily feeding readiness assessment. Hence, oral feeding by nurses would then be recommended. Once they attained full oral feeding in 24 hours without tube feeding, babies would be discharged from oral feeding training.

Result
A service review was done for the period 1/1/2016-31/12/2016. A total of 65 cases were recruited. 2 cases died and 3 cases were excluded due to medical complications. In those 60 cases analyzed, 16 cases were birth weight below 1000gm, and 44 cases were birth weight between 1001gm to 1499gm. The mean total length of stay of all cases was 63.25days and total attendance per case was 14.25 sessions. For those cases at birth below 1000gm, the babies were ready to start NNS assessment when they were at 32weeks 3.5days* and weighed 1.405kg**. At about 2 weeks later...
(34 weeks 4.7 days*), the babies weighed 1.694kg** and therapist could perform NS Assessment. Oral feeding of 1 meal could be achieved about one week later at 35 weeks 5.6 days*, and they weighed 1.869kg**. When babies were 37 weeks 0.9 days* and 2.064kg**, they could achieve 24 hour full oral feed. For those cases at birth between 1001gm to 1499gm, the NNS Assessment was done at 33 weeks* when the babies weighed 1.454kg**; the NS Assessment came at 33 weeks 6.2 days* while they weighed 1.592kg**. Full oral feed for 1 meal could be achieved at 35 weeks* and they weighed 1.79kg**. Full oral feed could be achieved when babies were 35 weeks 5.6 days* and 1.976kg**. In conclusion, preterm babies under nutrition pathway could catch up in their feeding abilities compared to full term babies (PMA 37 weeks). *mean PMA **mean body weight