

Newborn Services – Neonatal Nutrition Guidelines 2010

Intravenous Nutrition							
All babies <37 weeks <u>or</u> birthweight <1500 g: Initiation of amino acid <u>and</u> lipid within 12 hours of birth							
Infants ≤1000g:	Starter solution from Day 0 at 30 ml/kg.day and lipid at 1 g/kg.day via central venous line or umbilical venous catheter providing 2 g/kg.day protein. Over the next few days P100 (amino acid and dextrose solution) increases to a maximum of 96 ml/kg.day, providing 4 g/kg.day protein.						
Infants >1000g or infants ≤1000g without central venous access:	P100 from Day 0 (51 ml/kg.day providing 2 g/kg.day protein) Over the next few days P100 increases to a maximum of 90 ml/kg.day, providing 3.8 g/kg.day protein.						
Recommended volumes for babies <37weeks							
	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Fluid ml/kg.day	60	75	90	105	120	150	180
Lipid	1 g/kg.day	2 g/kg.day	3 g/kg.day (continue 3g/kg.day lipid until the day IVN finishes or don't order lipid on the day P100 will finish)				
Enteral Nutrition - If born at <32 weeks OR birthweight <1800g							
Reasons to withhold feeds	Bile stained aspirates only (see <i>Withholding Feeds Guideline</i>)						
Start enteral feeds	Within 24 hours of birth (can wait up to 72 hours for breastmilk)						
Feed type 1st choice	Expressed breastmilk (EBM)						
If breastmilk not available	Feeds started with preterm formula						
Starting volume, feeding route and frequency	Begin 1 ml bolus feeds 2 – 6 hourly (as extra fluid) via nasogastric or orogastric tube and increase as tolerated until 1 ml 2 hourly. Feed volume then increased by 1 ml, every 8 to 24 hours (included in fluid allowance)						
Recommended increase	20 – 35 ml/kg.d per 24 hrs						
Full feed volume	180 ml/kg.day - Increase to 200 ml/kg if not growing well						
Breastmilk fortifier added	Add breastmilk fortifier when feed volume reaches 5 ml per feed with a 1pkt to 20 ml fortifier (while feed volumes are <15 ml)						
Growth monitoring	Weight – Level 3 alternate days, Level 1 and 2 twice weekly Length and head circumference – weekly plotted on growth chart						
Iron supplementation	Started 4 weeks after birth. Starting dose 3 mg/kg.day elemental iron (0.5 ml/kg.day). Dose increased to 6 mg/kg.day if iron-deficient.						
Vitadol C <i>A higher dose of Vitadol C is needed to meet the 2009 ESPGHAN recommended nutrient intake for Vitamin D</i>	<ol style="list-style-type: none"> 1. Start Vitadol C 0.2 ml twice per day for all babies on any oral feed when having at least 8 ml per feed (because vitamin and mineral supplements substantially increase the osmolality of a feed) 2. Vitadol C continues at this dose while on breastmilk fortifier or preterm formula then reduce Vitadol C to 0.2 ml once per day when weight reaches 1500 g 3. Babies on all other feeds (e.g. unfortified EBM, term or hydrolysed formula, which have much lower levels of vitamins and minerals) or fluid restricted to <150 ml/kg/day need individual assessment of vitamin D intake to prescribe Vitadol C 						
Other nutrients e.g. folic acid	Not given routinely						
Post discharge formula	May be recommended if born at <33 weeks, not breastfed and post term						
On discharge	Vitadol C to 0.3 ml once per day Ferrous sulphate 3 mg/kg.day elemental iron (0.5 ml/kg.day). <i>Vitamin and iron supplements should be continued till the infant is well established on a balanced diet of solids.</i>						
<i>At any time if growth is inadequate, consider referral to dietitian</i>							