***Table 1.*** *Key History Taking Areas for Medical Students in the NICU*

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| **History** | **Importance** | **Example admission note** |
| **Antenatal** | | |
| **Gravity and parity** | History of fetal/neonatal death | G2 P2 |
| **Blood group and antibodies** | Risk of haemolytic disease | O+ve, antibody negative |
| **Hepatitis, HIV and Rubella serology**  **+/- Toxoplasma/CMV/HSV/Parvovirus** | Risk of vertical transmission +/-congenital infection | Serology negative  Rubella immune |
| **Group B Streptococcus (GBS) status** | Septic risk factor | GBS negative |
| **First trimester combined screening (FTCS) or non-invasive prenatal test (NIPT)** | Risk of genetic abnormalities | Low risk first trimester screening and NIPT |
| **Gestational diabetes (GDM)**   * **oral glucose tolerance test (OGTT)** | Risks for new-born (especially hypoglycaemia) | Gestational diabetes – on insulin |
| **Morphology Ultrasound** | Fetal abnormalities | Morphology – small ventricular septal defect, otherwise normal |
| **Complications or medications in the pregnancy** | Identify other factors which may affect the new-born | No other complications or medications in pregnancy |
| **Social, smoking, alcohol and drug history** | Social and pharmacological risks | Mother is teacher, no partner  No smoking/alcohol/drugs |
| **Birth** | | |
| **Weeks’ gestation** | Prematurity? | 39+2 weeks gestation |
| **Labour – induced or spontaneous or no labour** | Reason for induction? | Induction of labour for fetal macrosomia |
| **Rupture of membranes and liquor** | Prolonged rupture >18 hours is septic risk factor  Meconium liquor is risk factor for meconium aspiration syndrome (MAS) | Membranes ruptured 24 hours prior to delivery, clear liquor |
| **Antibiotics given?** | Antibiotics often given if GBS+ve or prolonged rupture of membranes | Benzylpenicillin administered 4H prior to delivery |
| **Mode of delivery – vaginal, instrumental, caesarean section** | Reason for assisted or caesarean section? | Vaginal birth assisted by forceps for fetal distress |
| **Maternal fever** | Septic risk factor | No maternal fever |
| **Neonatal** | | |
| **APGARS** | Condition of newborn at birth | APGARS 5 (1min) and 8 (5min) |
| **Resuscitation at birth** | Newborn compromise and interventions | CPAP with FiO2 50% for respiratory distress and desaturation in delivery room  Weaned off by 10min life |
| **Vitamin K injection** | Reduces risk of Haemorrhagic Disease of Newborn (HDN) | Vitamin K given |
| **Hepatitis B immunisation** | Routine immunisation | Hepatitis B given |

***Table 2.*** *Neonatal Intensive Care (NICU) Glossary terms*

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| **NICU Glossary** |
| **Usual pregnancy 40 weeks**   * >/= 37 weeks: Full term * <37 weeks: Preterm * <28 weeks: Extremely preterm   **Usual birthweight at term: 2.5-4kg**   * Approximate weight gain 150g/week (full term baby) * Small for Gestational Age (SGA) <10th centile for gestation * Large for Gestational Age (LGA) >90th centile for gestation   **Total Fluid Intake (TFI): Daily fluid requirement in mL/kg/day**   * Used to prescribe milk or intravenous fluid amount   **Respiratory Support**   * Cot oxygen: increased FiO2 in incubator * Low Flow Oxygen (LFO2) * High Flow Nasal Prongs (HFNP) * Continuous Positive Airway Pressure (CPAP) * Endotracheal tube (ETT)   **Jaundice**   * Serum Bilirubin (SBR) * Direct Antiglobulin Test (DAT) |

***Table 3.*** *Top 10 Questions to Ask in the Neonatal Intensive Care Unit or Special Care Nursery*

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| 1. What are some signs of sepsis in the newborn? 2. How do I approach the respiratory or cardiac exam in a newborn? 3. Could you show me a CXR demonstrating:   Transient Tachypnoea of the Newborn?  Respiratory Distress Syndrome?   1. Could you help me to interpret this blood gas? 2. What is a normal bloods sugar for a newborn? How do you manage hypoglycaemia? 3. What are the different types of respiratory support provided to newborns? 4. May I assist to perform a baby check? 5. What causes jaundice in the newborn? Could I plot this newborn’s jaundice level on a treatment chart? 6. Could I join the team who attend deliveries?   *TIP: Revise the Newborn Resuscitation Pathway, and calculate the APGARS*   1. What is the prognosis for this patient? |

***Table 4.*** *NICU Quiz*

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| 1. What physiological changes occur after birth that facilitate the transition from fetus to newborn? 2. What are the “normal” feeding, stooling, and voiding patterns of a full-term newborn? 3. How do the newborn’s vital signs differ from children and adults? 4. What are 3 septic risk factors for newborns? What might be the source of sepsis in infants? 5. What are 5 complications of prematurity? 6. What are the causes of:   Unconjugated jaundice?  Conjugated jaundice?   1. What are 4 common and important respiratory causes of respiratory distress in the newborn? 2. Respiratory support modes include Low Flow Oxygen, High Flow Nasal Prongs. Which respiratory support modes provide newborns with:   Oxygen?  Positive End Expiratory Pressure (PEEP)?  Positive Inspiratory Pressure (PIP)?   1. On the baby check, what is the clinical significance of assessing the   Femoral pulses?  Hip examination?  Red reflexes? |

**Some recommended resources are as follows:**

1. **Paediatric Medicine**

Tom Lissauer; Will Carroll, Illustrated Textbook of Paediatrics, 5th Edition 2017, Edinburgh: Elsevier

1. **Paediatric Surgery**

John M. Hutson, Michael O'Brien, Spencer W Beasley, Sebastian King, Jones' Clinical Paediatric Surgery, 7th edition, 2015.

1. **Paediatric Clinical Examination**

Goldbloom R Paediatric Clinical Skills 4th Edition, 2011.

1. RCH Neonatal and Paediatric Guide: [www.rch.org.au](http://www.rch.org.au)
2. MedlinePlus <http://www.nlm.nih.gov/medlineplus>
3. RCH Paediatric Practice Guidelines <https://www.rch.org.au/clinicalguide/>