***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 negativeRubella 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 partnerNo 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 factorMeconium 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 roomWeaned 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/>