

Neonatal Medicine Sub-specialty Board
College of Paediatrics,
Academy of Medicine of Malaysia

Report on Level of Achievement of Key Competencies by Supervisors/Referees
(Each supervisor/referee must submit a separate report)

Candidate's Name: _____

Candidate's Identification Number or Passport number: _____

Period of training: from _____ to _____

Name of supervisor/referees: _____

Key Competencies (please tick wherever is relevant to the applicant by the supervisor/referee)

1. Resuscitation

Competency: The applicant is able to institute and lead neonatal resuscitation both of the term and preterm baby. The applicant has demonstrated a full understanding of the physiology and treatments involved.

Level 1. # Certification of an advanced life support course, which includes the care of the newborn (NLS or NRP; PALS; APLS)

Can demonstrate ability to intubate successfully

Level 2. # Has advanced resuscitation skills- has knowledge and skills to undertake the technically difficult resuscitation

Has demonstrated team leadership in resuscitation situations

Level 3. # Able to take full decisions in ethically difficult situations (prematurity, malformation, failed resuscitation) (essential)

Reached instructor status on an NLS or NRP course as above (desirable).

2. Neurology

Competency: The applicant has demonstrated proficiency at clinical assessment, investigations (including cerebral ultrasound scanning) and management of a range of neurological disorders, including preterm and term brain injury, congenital malformations, intracranial trauma and seizures

Level 1. # Able to carry out a structured neurological examination.

Can diagnose and initiate first line management of encephalopathy and seizures

Level 2. # Can formulate ongoing management plans for common neurological conditions (encephalopathy, seizures, IVH)

Able to perform neurological and developmental assessment for the newborn and of babies up to 2 years of age

Level 3. # Can initiate investigation of rare and complex neurological and neuromuscular disorders

Can discuss the use of MRI, CT scanning, EEG in the investigation of neurological disease

Able to perform and interpret a cerebral ultrasound examination (essential) and has attended a structured course (desirable)

Has acquired the following skills:

Neurological assessment scheme

Ventricular tap

Gestational age assessment

Measurement of CSF pressure

Lumbar puncture

Cerebral ultrasound scanning as acquired the following skills:

3. Communication skills and counselling

Competency: The applicant has demonstrated skills in communication with parents and staff, both individually and as part of a team, during their training. This includes experience at breaking bad news, handling perinatal death and discussing prognosis with parents.

Level 1. # Can understand and have discussed principles behind counselling and communicating information to parents.

Is supportive in team working in neonatal intensive care

Level 2. # Has had experience of counselling parents anticipating an extremely preterm delivery

Has observed counselling of parents of babies who are dying or are at high risk of disability, the disclosure of antenatal diagnoses or the disclosure of diagnosis of cerebral palsy in outpatients.

Level 3. # Has counselled parents of a baby who is dying or at high risk of disability and requested permission for autopsy

Has led a prenatal counselling session and undertaken bereavement counselling under supervision

Has demonstrated the necessary communication skills to make the concepts and mechanisms of genetic diseases understandable to parents, using non-technical language.

Applicant has attended a course in bereavement counselling

4. Congenital anomalies and genetic disease

Competency: The applicant is able to recognise common congenital anomalies, to investigate babies with such lesions and to use literature and database searches to identify rare conditions and communicate such information to parents

Level 1. # Recognise common syndromes (e.g. trisomy 21, trisomy 18, VACTERL) and has observed counselling of parents by a Consultant

Level 2. # Able to use common texts and genetic/abnormality databases to identify rare disorders

Can obtain a genetic history and understands genetic investigations

Level 3. # Able to plan diagnostic and clinical management of a baby born with a congenital anomaly with a multidisciplinary team

Has undertaken counselling of parents whose baby has a genetic condition

Use of common genetics and dysmorphology databases

5. Cardio-respiratory intensive care

Competency: The applicant is able to institute and maintain full cardio-respiratory intensive care for preterm and sick term newborn babies. This includes full working knowledge of the principles and application of a range of ventilatory modalities, of circulatory support and the applicant is able to manage complications. In addition the applicant is able to plan a care for the baby with chronic respiratory diseases and be aware of the potential long-term complications.

	Level 1	Level 2	Level 3
Mechanical ventilation	<input type="checkbox"/> Able to institute ventilatory support and administer surfactant	<input type="checkbox"/> Understand and use different ventilatory modalities	<input type="checkbox"/> Supervise whole respiratory course of sick baby with RDS, including weaning from ventilator, use of sedation and muscle relaxants
Circulation	<input type="checkbox"/> Able to make clinical assessment of adequacy of neonatal circulation and institute support for hypotension	<input type="checkbox"/> Understand the different pharmacological effects of inotropic drugs and their use	<input type="checkbox"/> Diagnose and manage complex circulatory problems, including PPHN and cardiac tamponade
Patent Ductus Arteriosus	<input type="checkbox"/> Able to make clinical diagnosis	<input type="checkbox"/> Able to select and monitor appropriate medical or surgical management	<input type="checkbox"/> Able to identify patent ductus arteriosus using ultrasound (desirable)
Complications	<input type="checkbox"/> Able to diagnose and treat common complications of mechanical ventilation (e.g. pneumothorax, displaced or obstructed trachea tube)	<input type="checkbox"/> Understands the principles of management of difficult airway (e.g. Pierre Robin Sequence)	<input type="checkbox"/> Able to manage complex respiratory problems including PIE, sub-glottic stenosis, pulmonary hypoplasia, chylothorax, diaphragmatic hernia
Chronic lung disease	<input type="checkbox"/> Understand the aetiology and progression of baby with CLD	<input type="checkbox"/> Understands and able to plan respiratory, nutritional and pharmacological support for CLD	<input type="checkbox"/> Be able to manage long term ventilatory support, home oxygen treatment and ongoing outpatient management of babies with CLD

The applicant has acquired the following skills:

- | | | |
|---|---|--|
| <input type="checkbox"/> Intubation | <input type="checkbox"/> Use of patient triggered ventilation | <input type="checkbox"/> Umbilical arterial and venous catheterisation |
| <input type="checkbox"/> Identification of pneumothorax using transillumination | <input type="checkbox"/> Use of tidal volume ventilation | |
| | <input type="checkbox"/> Use of high frequency ventilation | <input type="checkbox"/> Peripheral arterial cannulation |

- ❑ Chest tube placement
- ❑ Use of nitric oxide
- ❑ Interpretation of the chest X rays

6. Fluid balance, thermoregulation and renal failure

Competency: The applicant is able to initiate and manage the thermal environment of preterm and term babies, and manage fluid balance in such babies, demonstrating a full understanding and knowledge of the underlying physiology, with special reference to the rapid postnatal changes in body water distribution and trans-epidermal water loss. The applicant is able to diagnose and initiate treatment of renal failure.

Level 1. # Interpret blood and urine test results in the context of normal values, postnatal age and gestation

- ❑ Prescribe appropriate fluid maintenance for babies who required intravenous therapy, and adjust the prescription according to the thermal environment; be able to define diagnose renal failure in babies. Understand the thermo-neutral environment

Level 2. # Supervise the entire fluid balance regimen in a complex case, arranging and interpreting the appropriate laboratory investigations

Level 3. # Able to manage complex fluid balance problems in very preterm babies; able to manage renal failure including deciding when dialysis is indicated.

Has acquired skills in inserting intravenous cannulation

Has acquired skills in percutaneous long line insertion

7. Haematology and transfusion

Competency: The applicant is able to diagnose and manage the range of haematological disorders found in newborn babies. To be conversant with the full range of blood products available for transfusion and the appropriate use of each

Level 1. # Has knowledge of the normal range of haematological values in the newborn, including coagulation values. To be able to prescribe blood transfusion appropriately and discuss the potential complications

Level 2. # Can describe and discuss cases of haematological disorders diagnosed and treated by the trainee

Level 3. # Has experience of management of the range of haematological disorders of babies

- ❑ Can use blood products appropriately and effectively, including exchange transfusion

The applicant has acquired the following skills

- # Exchange transfusion
- # Dilutional exchange transfusion for polycythaemia

8. Metabolism and endocrine disorders

Competency: The applicant demonstrates proficiency in the recognition, assessment, investigation and management of the more common and important metabolic and endocrine disorders, including: -

Level 1. # Is able to manage common metabolic disturbances, including hypoglycaemia, neonatal jaundice, and electrolyte abnormalities

Level 2. # Is able to recognise and institute emergency treatment for inborn errors of metabolism and endocrine abnormalities, including recognition, investigation and management of babies with ambiguous genitalia

Level 3. # Can develop a multidisciplinary management plan for babies with metabolic and endocrine disorders

9. Nutrition, feeding and gastro-intestinal disease

Competency: The applicant understands the importance of neonatal nutrition and is able to provide comprehensive nutritional support to well and sick newborn babies, including the recognition and treatment of common complications

Level 1. # Understands the importance of breast milk and is able to discuss feeding problems with the parents

- Can establish nutritional support, including prescription of intravenous nutrition
- Able to diagnose & initiate treatment of necrotising enterocolitis

Level 2. # Able to prescribe and manage intravenous nutrition, to be aware of the likely complications of intravenous nutrition and manage problems of feed Intolerance

- Can manage the medical course of a child with necrotising enterocolitis

Level 3. # Able to formulate a management plan for nutritional support for a sick newborn baby throughout their clinical course and can discuss the role of early nutrition in determining long term outcome

- Able to management pre- and post-operative care for a child with congenital gastrointestinal anomalies and those with hepatobiliary disease

10. Immunity and infection

Competency: The applicant is able to understand the development of immunity and the vulnerability of the newborn to infection

Level 1. # Understand perinatal risk factors and signs and symptoms of early and late onset infections

- Able to manage surveillance and preventative measures in infection control
- Able to counsel parents regarding immunisation following neonatal intensive care

Level 2. # Has detailed understanding of the mode of action and regimens of antibiotics and of investigation and management of common perinatal and neonatal infections.

Level 3. # Can recognise and manage complex infections such as fungal infections, HIV and intrauterine infection

- # Understands the multidisciplinary approach and can manage a nursery epidemic

Has acquired the following skills:

- # Venepuncture
- # Lumbar puncture
- # Suprapubic aspiration
- # Ventricular tap

11. Family care and care of the well newborn baby

Competency: The applicant has a wide knowledge of normal development, common minor problems and morphological variation and the importance of communication with other health care professionals and the parents.

Level 1. # Able to demonstrate examination of the normal baby, including psychosocial aspects and able to provide parental advice on feeding

- Able to manage common neonatal problems, e.g. jaundice, hip dysplasia

- Able to discuss the role of neonatal screening test (G6pd, Thyroid, hearing) with parents

Level 2. # Able to teach and supervise midwives, nurses, medical students and doctors providing routine postnatal family support

- Able to teach parents basic life support

Level 3. # Knowledge of legal procedures in child protection, social services, fostering and adoption

12. Ward organisation /Management Skills

Competency: The applicant has demonstrated skills at leading clinical rounds, be able to carry out the administrative duties required to run a neonatal unit and has organised and attended perinatal meetings, and unit meetings.

Level 1. # Has experience of organising rotas for medical officers and trainees in neonatology, annual leave and study leave

Level 2. # Has organised perinatal and unit meetings

- # Able to conduct ward rounds and delegate tasks appropriately

Level 3. # Has attended a recognised management course

- # Has taken part in the investigation of an clinical incident.
- # Has demonstrated ability to carry out clinical audit

13. Transport of the newborn baby

Competency: The applicant is competent at retrieval and transport of the sick newborn baby and is able to teach others to carry out transfers

Level 1. # Has thorough knowledge of equipment used during neonatal transport and of the team approach to transfer and safety aspects

- Has been on a neonatal transport as an observer

Level 2. # Able to perform transfer of sick medical or surgical newborn baby, including ability to deal with emergencies arising during the journey (e.g. extubation, loss of primary oxygen source)

- Aware of the need to be sensitive to the needs and efforts of the referring hospital

Level 3. # Able to take full decisions about clinical suitability for transfer and placement of the baby, and to supervise a transfer remotely (e.g. able to provide telephone advice)

Assessment of clinical competency of staff to perform transfer

14. Rating by supervisor on other aspects of applicant:

(Please rate with a scale of 1 to 4, 1= very poor, 2= weak, 3=satisfactory 4= good 5= excellent)

Item no.	Areas assessed	Rating
1.	Maturity & appropriate approach in confronting clinical problems	
2	Judgment & skills in implementing treatment	
3	Promptness & effectiveness in treating emergency patients	
4	Competence & appropriateness in providing continuing care	
5	Effectiveness of doctor-patient relationship	
6	Ability to maintain good relationship with colleagues, medical & nursing staff	
7	Involvement & interest in CME activities	
8	Leadership qualities	
9	Administrative experience/knowledge	
10	Quality assurance (QA) activities	
11	Research activities	
12	Empathy & compassion	

15. Evidence of Other Experience

a) Fetal Medicine:

Dates of experience obtained	
Supervisor	
Summary of experience obtained	

b) Neurological and developmental follow up:

Dates of experience obtained	
Supervisor	
Summary of experience obtained	

c) Other Relevant Experience (repeat as necessary)

Subject:	
Dates of experience obtained	
Supervisor	
Summary of experience obtained	

Please add further pages to portfolio to record other aspects of training,:

- # Reflective notes
- # Regional /supra-regional meetings attended and learning points

I hereby certified that the above information are true and accurate.

Signature of supervisor: _____ Date of Report: _____