

Neonatology Entrustable Professional Activities (EPA)

EPA titles	EPA Entrustment Level to be attained by Exit
EPA 1: Managing critically ill neonates in intensive care	Level 4
EPA 2: Managing and discharge-planning of neonates in special care nursery	Level 4
EPA 3: Providing neonatal end-of-life care	Level 4
EPA 4: Delivering outpatient services and overseeing care for high-risk infants	Level 4
EPA 5: Providing neonatal consultation for high-risk pregnancies	Level 4
EPA 6: Performing core neonatal procedures	Level 4
EPA 7: Leading advanced neonatal resuscitation, stabilisation and transport	Level 4

Entrustment Scale

Entrustment Level	Description
1	Not allowed to practise EPA, allowed to observe.
2	Allowed to practise EPA only under proactive, full supervision.
3	Allowed to practise EPA only under reactive/on-demand supervision.
4	Allowed to practise EPA unsupervised.
5	Allowed to supervise others in practice of EPA independently.

EPA 1: Managing critically ill neonates in intensive care

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Title	Managing critically ill neonates in intensive care
Specifications and limitations	The practice of the EPA should align with Appropriate and Value-based Care (AVBC) principles where relevant - (i) Care is evidence-based, (ii) Care is patient-centred, (iii) Care is right-sited, (iv) Care is integrated and coordinated, and (v) Care is cost-effective and sustainable. This EPA includes the management of critically ill preterm and term neonates requiring intensive care including planning for discharge or transfer to next level of care. Examples of patients and conditions include (but not limited to) extremely premature newborn, respiratory distress syndrome, circulatory shock, hypotension, sepsis, persistent pulmonary hypertension (PPH), hypoxic-ischaemic encephalopathy (HIE), neonatal seizures, complex multiple congenital malformations including hydrops fetalis, and neonatal surgical conditions. This EPA contains the following elements: 1. Assessing newborn through review of antenatal and perinatal history, physical examination, laboratory and radiological investigations. 2. Identifying key issues in the care of the critically ill neonates with a range of conditions, form differential diagnoses and arrange appropriate investigations. 3. Developing and implementing holistic management plans – including peri-operative care where relevant. 4. Anticipate and recognise clinical deterioration, reassess responses to interventions and adjust management plan accordingly. 5. Utilising invasive and non-invasive monitoring to guide management and therapy. 6. Leading a multidisciplinary resuscitation team (covered in EPA 7). 7. Communicating with families and colleagues, including disclosure of patient safety events. 8. Providing discharge planning for complex patients. 9. Handing over patients during ongoing care and transition to next level of care. 10. Participate in debriefing to review management and identify areas for improvement. Limitations: This EPA excludes patients who are on Extra Corporeal Membrane Oxygenation (ECMO). Management of Pediatric Patients on ECMO is covered under the Paediatric Intensive Care EPA.
EPA Entrustment Level to be Attained by Exit	Level 4 by end of SS2 (mandatory)

EPA 2: Managing and discharge-planning of neonates in special care nursery

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Title	Managing and discharge-planning of neonates in special care nursery
Specifications and limitations	The practice of the EPA should align with Appropriate and Value-based Care (AVBC) principles where relevant – (i) Care is evidence-based, (ii) Care is patient-centred, (iii) Care is right-sited, (iv) Care is integrated and coordinated, and (v) Care is cost-effective and sustainable. This EPA involves ongoing management of neonates requiring care in the Special Care Nursery setting. It focuses on chronic care of neonates with complex conditions and discharge planning. This EPA contains the following elements: 1. Monitoring and managing nutritional needs, growth, and development of infants. 2. Managing infants with complications of prematurity, including chronic lung disease requiring non-invasive ventilatory support or oxygen supplementation, growth failure, and neurological conditions. 3. Managing infants with congenital birth defects and medically complex issues, including post-surgical management and coordinating continued multidisciplinary care. 4. Preparing preterm and medically complex neonates for discharge, including routine vaccinations, Respiratory Syncytial Virus (RSV) prophylaxis, home care planning for equipment, caregiver training, and involvement of multidisciplinary teams for follow-up. 5. Counselling and providing anticipatory care for parents of preterm infants. 6. Engaging in and coordinating care with appropriate specialists, healthcare professionals/agencies, and leading multidisciplinary team discussions
EPA Entrustment Level to be Attained by Exit	Limitations: This EPA excludes acutely ill babies requiring intensive care (covered in EPA 1) and follow-up care of infants in the outpatient clinics. Level 4 by end of SS2 (mandatory)

EPA 3: Providing neonatal end-of-life care

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Title	Providing neonatal end-of-life care
Specifications and limitations	The practice of the EPA should align with Appropriate and Value-based Care (AVBC) principles where relevant – (i) Care is evidence-based, (ii) Care is patient-centred, (iii) Care is right-sited, (iv) Care is integrated and coordinated, and (v) Care is cost-effective and sustainable. This EPA includes navigating complex ethical decisions, providing end-of-life care, and providing psychosocial support for families of neonates facing critical illness and potential loss. This EPA contains the following elements: 1. Identifying which patients will qualify for conversations on end-of-life care. Examples include life limiting conditions like trisomy 13, trisomy 18, acrania, anencephaly, lethal skeletal dysplasia, severe hydrops, and premature infants with significant morbidities like extensive Necrotising Enterocolitis (NEC), severe Intraventricular Haemorrhage (IVH), septic shock and severe Hypoxic-Ischemic Encephalopathy (HIE). 2. Leading conversations on end-of-life care. 3. Facilitating advance care planning. 4. Managing pain and suffering at end of life of critically ill newborns. 5. Co-ordinating care with palliative care services in hospital and community. 6. Providing psycho-social, religious, and cultural support for patient and family at end-of-life. 7. Facilitating death procedures within Singapore system. 8. Providing bereavement follow-up care.
	Limitations: This EPA excludes providing neonatal end-of-life care in the community
EPA Entrustment Level to be Attained by Exit	Level 4 by end of SS2 (mandatory)

EPA 4: Delivering outpatient services and overseeing care for high-risk infants[Click to return to main list of EPA titles](#)

Title	Delivering outpatient services and overseeing care for high-risk infants
Specifications and limitations	The practice of the EPA should align with Appropriate and Value-based Care (AVBC) principles where relevant – (i) Care is evidence-based, (ii) Care is patient-centred, (iii) Care is right-sited, (iv) Care is integrated and coordinated, and (v) Care is cost-effective and sustainable. This EPA includes follow-up care for high-risk infants (including very low birth weight babies, late preterm infants, and neonates with HIE or birth defects) and managing post-discharge complications. This EPA contains the following elements: 1. Assessing the needs of the patient and family. 2. Conducting assessment and monitoring of development, growth and nutrition. 3. Screening for autism and autism spectrum disorders. 4. Recommending appropriate health screening tests and administering vaccinations 5. Providing guidance to families regarding ongoing care needs. 6. Establishing a therapeutic partnership with the patient and family to provide family-centered care. 7. Collaborating with multidisciplinary teams for follow-up care, including physiotherapists, occupational therapists, speech therapists, dietitians, medical social workers, community paediatricians, and developmental specialists. 8. Ensuring proper referrals for specialised care when needed.
	Limitations: • This EPA excludes the ability to conduct psychometric assessments on high-risk infants
EPA Entrustment Level to be Attained by Exit	Level 4 by end of SS2 (mandatory)

EPA 5: Providing neonatal consultation for high-risk pregnancies

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Title	Providing neonatal consultation for high-risk pregnancies
Specifications and limitations	The practice of the EPA should align with Appropriate and Value-based Care (AVBC) principles where relevant – (i) Care is evidence-based, (ii) Care is patient-centred, (iii) Care is right-sited, (iv) Care is integrated and coordinated, and (v) Care is cost-effective and sustainable. This EPA provides guidance for the neonatologist working in multi-disciplinary teams (MDT) that manage high-risk pregnancies complicated by the following conditions occurring either singly or in combination. The conditions include (but not limited to): • foetal anomalies (including antenatally diagnosed birth defects such as congenital diaphragmatic hernia and hydrops fetalis), • intra-uterine infections (e.g., toxoplasma, rubella, cytomegalovirus [CMV], herpes, syphilis, parvo B19) • extremely preterm labour • multiple foetuses complicated by twin-to-twin transfusion syndrome or growth discrepancy • foetuses with foetal growth restriction or excessive weight gain • obstetric complications such as severe pre-eclampsia, poorly or uncontrolled diabetes mellitus impacting on foetal well-being • maternal pre-existing conditions that affect pregnancy or the delivery process (such as maternal congenital heart disorders, systemic lupus erythematosus [SLE], cancers, Graves' Disease, etc.) This EPA contains the following elements: 1. Coordinating and collaborating with a specialised multi-disciplinary team which may consist of obstetricians, maternal medicine specialists, anaesthetists, and other paediatric specialists depending on the nature and complexity of the case. The aims of the multi-disciplinary team are to forge consensus regarding stabilisation of the maternal medical condition (if any), labour planning, neonatal resuscitation, and postnatal management for best outcomes. 2. Counselling parents of the high-risk neonate regarding aetiology, duration of hospitalisation, natural course, management, treatment and prognosis through use of effective communication skills. 3. Supporting parents by screening for postpartum depression to address mental health needs. Limitations: • Nil
EPA Entrustment Level to be Attained by Exit	Level 4 by end of SS2 (mandatory)

EPA 6: Performing core neonatal procedures

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Title	Performing core neonatal procedures
Specifications and limitations	The practice of the EPA should align with Appropriate and Value-based Care (AVBC) principles where relevant - (i) Care is evidence-based, (ii) Care is patient-centred, (iii) Care is right-sited, (iv) Care is integrated and coordinated, and (v) Care is cost-effective and sustainable. Neonatologist should be able to perform the following medical, diagnostic, and therapeutic procedures as listed in Table 1. This EPA contains the following elements: 1. Identifying appropriate procedures taking into consideration their clinical indications, contraindications, and potential complications. 2. Demonstrating clear and empathetic communication during informed consent discussions 3. Performing procedures safely and effectively. 4. Considering alternatives to specific procedures when facing challenges. 5. Applying post-procedural monitoring and management.
	Limitations: Nil
EPA Entrustment Level to be Attained by Exit	Level 4 by end of SS2 (mandatory)

Table 1 - List of procedures to be completed

	Procedure	Minimum Number of DOPS + EbD ¹ to be completed by end of training	Minimum Number of Procedural Logs ² to be completed by end of training	Expected Entrustment Level to be attained by end of training
1	Endotracheal tube intubation	2	10	Level 4
2	Surfactant administration (Via Minimally Invasive Surfactant Therapy [MIST]/Less Invasive Surfactant Administration [LISA])	2	5	Level 4
3	Percutaneous Long Line Insertion	2	5	Level 4
4	Chest drain / pigtail insertion (Simulation allowed)	2	2	Level 4
5	Umbilical venous catheter insertion	2	5	Level 4
6	Umbilical arterial catheter insertion	2	2	Level 4
7	Peripheral arterial line insertion	2	5	Level 4
8	Double volume exchange transfusion (Simulation allowed)	1	1	Level 4
9	Partial Exchange Transfusion (Simulation allowed)	1	1	Level 4
10	Point-of-Care Ultrasound (POCUS) Cranial	2	10	Level 4
11	Amplitude-integrated electroencephalography (aEEG) (Simulation allowed)	2	2	Level 4

¹ All DOPS + EbD should be assessed by consultant neonatologists, unless otherwise specified.

² The procedural logs should be reviewed by PD and JCC every 6 months to track residents' progress toward achieving the minimum case numbers by the end of their residency.

Table 2: Additional “good to know procedures”

	Procedure	Recommended number of DOPs + EbD ³ to be completed by end of training	Expected Entrustment Level to be attained by end of training
1	POCUS in the critically ill infant which specifically includes: • Cardiac (qualitative and/or quantitative assessment of cardiac contractility and function, features of pulmonary hypertension, PDA) • Intravascular fluid status and assessment of fluid responsiveness in shock states (IVC compressibility, ventricular filling) • Respiratory (Presence of pleural effusions, pneumothorax, consolidation, atelectasis)	1	Level 3

	(Simulation allowed)		
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³ All DOPS + EbD should be assessed by consultant neonatologists, unless otherwise specified.

EPA 7: Leading advanced neonatal resuscitation, stabilisation and transport

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Title	Leading advanced neonatal resuscitation, stabilisation and transport
Specifications and limitations	The practice of the EPA should align with Appropriate and Value-based Care (AVBC) principles where relevant – (i) Care is evidence-based, (ii) Care is patient-centred, (iii) Care is right-sited, (iv) Care is integrated and coordinated, and (v) Care is cost-effective and sustainable. This EPA includes leading neonatal resuscitation efforts for preterm and term infants (including extreme pre-mature infants and major congenital anomalies) in delivery rooms, operating theatres, or emergency settings, stabilising critically ill neonates prior to transport, and overseeing safe transport of neonates between facilities or within the hospital. This EPA contains the following elements: 1. Resuscitating and supporting neonates guided by the national neonatal resuscitation guideline. 2. Leading a team of healthcare workers during resuscitation. 3. Providing post-resuscitation stabilisation in neonates with respiratory distress, cardiovascular instability, or other critical conditions. 4. Initiating and managing basic neonatal intensive care interventions including respiratory support, fluid management, and pharmacological interventions. 5. Ensuring proper preparation for transport within or between the hospitals, including securing vascular access, monitoring equipment, and thermal regulation. 6. Ensuring safe and efficient transport of neonates while maintaining clinical stability. 7. Communicate effectively with transport teams and receiving units. 8. Accurate documentation of resuscitative interventions, provide comprehensive handover to receiving care teams and facilitate debriefing. Limitations: This EPA does not include neonates with known lethal congenital anomalies where decisions for palliative care have been made.
EPA Entrustment Level to be Attained by Exit	Level 4 by end of SS2 (mandatory)

**OVERVIEW OF WORKPLACE-BASED ASSESSMENTS (WBAS) FOR
THE 2-YEAR NEONATOLOGY RESIDENCY PROGRAMME (SS1 to SS2) FOR EACH EPA**

EPA		Mini-CEX + EbD	DOPS + EbD	MSF
EPA 1	Managing critically ill neonates in intensive care	8	-	1 set+ every 6 months
EPA 2	Managing and discharge-planning of neonates in special care nursery	2	-	
EPA 3	Providing neonatal end-of-life care	2	-	
EPA 4	Delivering outpatient services and overseeing care for high-risk infants	2	-	
EPA 5	Providing neonatal consultation for high-risk pregnancies	4	-	
EPA 6	Performing core neonatal procedures			
	1. Endotracheal tube intubation	-	2	
	2. Surfactant administration (Via Minimally Invasive Surfactant Therapy [MIST]/Less Invasive Surfactant Administration [LISA])	-	2	
	3. Percutaneous Long Line Insertion	-	2	
	4. Chest drain / pigtail insertion (Simulation allowed)	-	2	
	5. Umbilical venous catheter insertion	-	2	

	6. Umbilical arterial catheter insertion	-	2	
	7. Peripheral arterial line insertion	-	2	
	8. Double volume exchange transfusion (Simulation allowed)	-	1	
	9. Partial Exchange Transfusion (Simulation allowed)	-	1	
	10. Point-of-Care Ultrasound (POCUS) Cranial	-	2	
	11. Amplitude-integrated electroencephalography (aEEG) (Simulation allowed)	-	2	
	<Good to know procedure> 12. POCUS in the critically ill infant which specifically includes: • Cardiac (qualitative and/or quantitative assessment of cardiac contractility and function, features of pulmonary hypertension, PDA) • Intravascular fluid status and assessment of fluid responsiveness in shock states (IVC compressibility, ventricular filling) • Respiratory (Presence of pleural effusions, pneumothorax, consolidation, atelectasis) (Simulation allowed)	-	1	
EPA 7	Leading advanced neonatal resuscitation, stabilisation and transport	8	-	
Total Requirement Across 2-Year Neonatology Residency Programme (SS1 to SS2)		26	21	4 sets

* 1 set of MSF include the following raters: 1x faculty, 1 x peers and 1 x nurse/allied health professional.