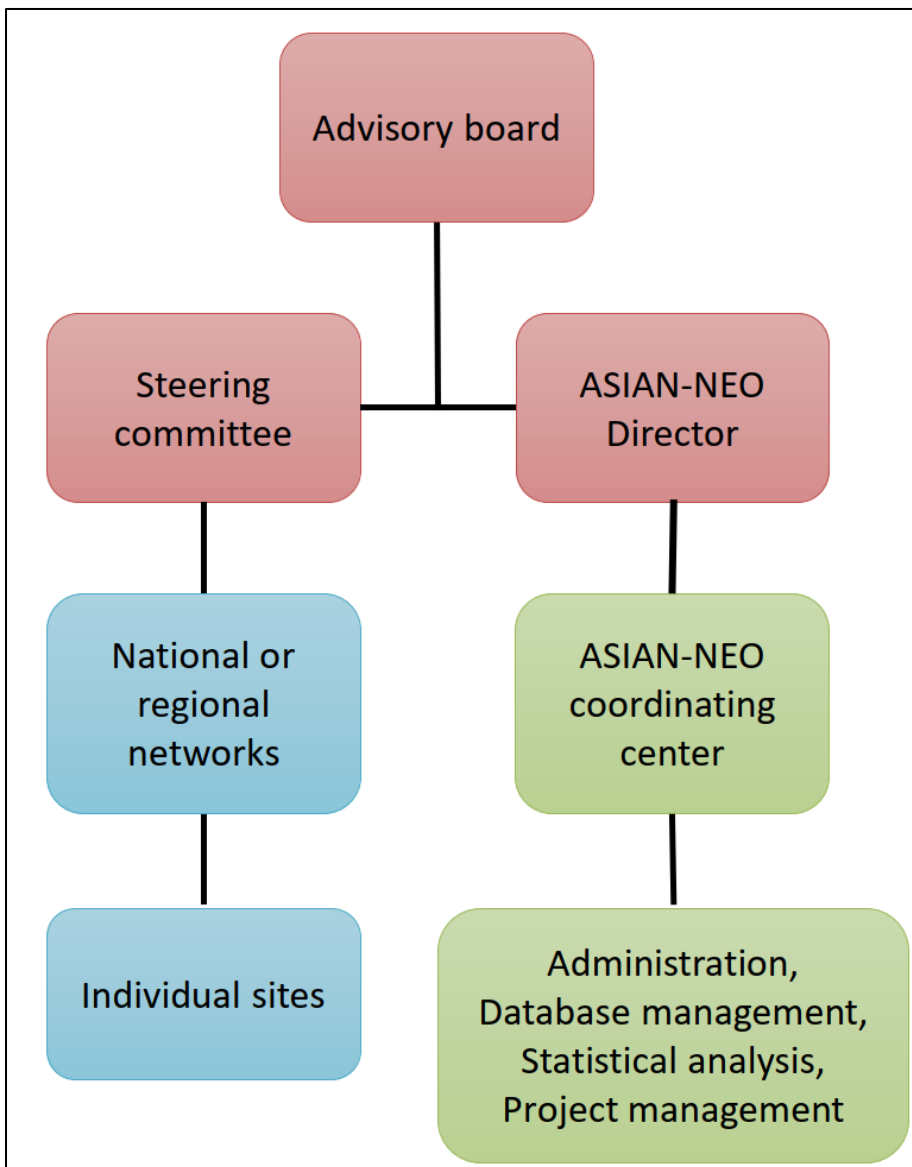


Supplemental material

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s-Figure 1: AsianNeo governance structure



s-Table 1: Variable list of the AsianNeo registry

	Variable	Unit/answer choices	Definitions/ notes
Mother	maternal age	age	Maternal age at delivery
	gravida	number of times	Not including current pregnancy*
	parity	number of times	Not including current pregnancy*
Pregnancy	multiple fetus	number	Number of fetuses at birth
	plurality	monochorionic /dichorionic/un known	If multiple pregnancy, specify mono- or multi-chorionic
	Pregnancy DM	Y/N/U (Yes/No/Unkown)	Including GDM Maternal diabetes mellitus or gestational diabetes mellitus
	chronic hypertension	Y/N/U	Maternal hypertension diagnosed before this pregnancy
	pregnancy induced hypertension	Y/N/U	Including pregnancy induced renal disease and hypertension, superimposed pregnancy induced hypertension, and eclampsia
	CAM clinical	Y/N/U	Diagnosed based on the clinical findings such as maternal fever, leukocytosis, and local pain
	CAM pathological	Y/N/U	Diagnosed with pathological examination
	maternal eclampsia	Y/N/U	Maternal eclampsia
	maternal abruptio placenta	Y/N/U	Maternal abruptio placenta
	Cord prolapse	Y/N/U	Cord prolapse
Delivery	PROM	Y/N/U	Defined as rupture of membranes before an onset of labor
	maternal antibiotics	Y/N/U	Maternal medication within the period mother is in labor, with the intent of preventing infection of the fetus. This includes the prophylactic use of parenteral penicillin or ampicillin.
	MgSO4	Y/N/U	Maternal medication (prior to delivery)
	maternal steroid (partial vs complete)	Y/N/U	Defined as administration of any corticosteroids to accelerate fetal lung maturity

	course, if possible)		
	NRFS	Y/N/U	Defined as non-reassuring fetal status
	delivery mode	vaginal birth/ vaginal (vacuum extraction, forceps)/caesarean section	Mode of delivery
	cord-blood transfusion (delayed cord clamping/ cord milking)	Y/N/U	Defined as any method of cord blood transfusion at birth
Neonate	age of admission	day after birth (must be less than 28 days after birth)	Must be less than 28 days after birth
	admission temperature	°C	Within the first hour after admission
	sex	M/F/U	Male/Female/Ambiguous
	outborn	Y/N	If an infant was born outside a participating hospital, yes
	gestational age	week, day	Gestational age
	confirmation of gestational age with US	Y/N	If gestational age was determined by the obstetric examination with ultrasonography
	Apgar at 1 min	number	Apgar score
	Apgar at 5 min	number	Apgar score
	Apgar at 10 min	number	Apgar score
	oxygen use at birth	Y/N	Resuscitation with oxygen
	face mask ventilation at birth	Y/N	Face mask ventilation at birth
	epinephrine at birth	Y/N	Resuscitation with epinephrine at birth
	chest compression during initial resuscitation	Y/N	Resuscitation with cardiac compression at birth
	NCPAP at birth	Y/N	NCPAP use at birth

	endotracheal intubation at birth	Y/N	Resuscitation with an endotracheal tube
	birthweight	g	Body weight at birth
	body length at birth	cm	Body length at birth
	HC at birth	cm	Head circumference at birth. If not available, enter the value at the first examination
	NICU admission	Y/N	If an infant was cared in NICU, yes
	cord blood gas pH	number	Measured pH
	cord blood gas PCO2	number	PCO2 in Torr
	cord blood gas BE	number	mmol/L of base excess in negative value
Respiratory system	RDS	Y/N	Diagnosed by clinical and radiographic findings ARDS not included
	airleak	Y/N	Any type of air leak included
	pulmonary hemorrhage	Y/N	only massive hemorrhage included
	PPHN	Y/N	Defined as right-to-left shunt at foramen oval and/or ductus arteriosus without any anatomical malformation detected by cardiac echocardiography
	duration of O2 supply	days	Days of age when oxygen supplementation stopped If still on: 999
	duration of CPAP	days	CPAP and DPAP not included
	duration of MV	days	Days of CPAP and DPAP not included MV
	HFO	Y/N	Use of HFO for mechanical ventilation
	Surfactant administration	number of times	Pulmonary surfactant (Surfacten®) given during the acute phase of respiratory problems
	iNO use	days	Days of iNO
	CLD 28d of birth	Y/N	Supplemental oxygen with chest X-ray changes on 28th day after birth
	CLD systemic steroid	Y/N	Steroid given during the hospital stay for prevention or treatment of CLD
	CLD 36wk demand of O2	Y/N	Supplemental oxygen use at 36th week postmenstrual age
	CLD 36wk demand of	Y/N	Supplemental CPAP use at 36th week postmenstrual age

	respiratory support		
Circulatory system	PDA	Y/N	Diagnosed by both echocardiographic findings and clinical evidence of volume overload due to left-to-right shunt
	drug use for PDA	Y/N	Regardless of purpose of use (prophylactic use and therapeutic use), if use drug for PDA, choose yes
	PDA surgery	Y/N	Operation for PDA
Central nervous system	IVH	Y/N	Diagnosed with cranial echography Subependymal and intra choroid plexus hemorrhage included
	IVH grade	I/II/III/IV	According to the classification of Papile
	IVH hydrocephalus	Y/N	Only hydrocephalus treated shunt operations
	cPVL	Y/N	Only cystic PVL diagnosed by using either head ultrasound or cranial MRI scans, performed after two weeks of age or later
	Shunt or reservoir for hydrocephalus	Y/N	Use of shunt or reservoir for hydrocephalus
Infection	sepsis (late onset sepsis (after 72hours of birth)	Y/N (after 72hours of birth)	Culture proven septicemia or bacteremia
	early onset sepsis within 72hours after birth	Y/N (within 72hours after birth)	Culture proven septicemia or bacteremia
	fungal infection after day3	Y/N	Culture proven at any time during the stay in NICU
	meningitis	Y/N	Diagnosed based on CSF examination or clinical symptoms
Digestive system	NEC	Y/N	Defined according to Bell's classification stage II or greater
	perforation	Y/N	Diagnosed if free air was detected in the abdominal cavity by X-ray examination due to other than NEC
	surgery for NEC, suspected NEC, or bowel perforation	Y/N	Including laparotomy and drainage
	probiotics	Y/N	Use of probiotics

Retinopathy	ROP stage	Stage 1, Stage 2, Stage 3, Stage 4, Stage 5	Worst stage according to the International classification
	Tx (laser, cryotherapy)	Y/N	If infants were treated with either laser- or cryo-coagulation therapy, or both.
	anti VEGF	Y/N	Use of anti-VEGF antibody
Other complications	congenital anomaly	Y/N	Only major and fatal anomaly
	diagnosis of congenital anomaly	code (NRN operation manual)	Enter a code for major congenital anomaly Refer Table 2 in operational manual
Feeding	feeding at 120 ml/kg/day	days after birth	days to reach feeding at 120 ml/kg/day
	enteral feeding >100ml/kg/day	days after birth	days to reach feeding over 100 ml/kg/day
	discharge feeding status	Breast milk 100%/ Formula 100%/Mix/ No data (death)	Feeding status at discharge
Discharge	age of discharge	days after birth	Day of age at discharge
	death at discharge	Alive/Death	Death at discharge
	cause of death	ICD11	Refer to algorithm of cause of death
	disposition to home	home/others	Home: discharge to home/ Others: discharge to the place excepting home
	place to transfer	hospital at birth/NICU in other hospital/pediatric department in the hospital/pediatric department in other hospital/facilities for the disabled/infant home	Place to hospital transfer
	HOT (discharge-oxygen)	Y/N	Use of home oxygen after discharge
	bodyweight at discharge	g	Body weight at discharge

	body length at discharge	cm	Body length at discharge
	HC at discharge	cm	Head circumference at discharge
	growth status at 36week PMA	SGA/AGA	According to Fenton reference, defined as Small-for-Gestational-Age (SGA) or Appropriate-for-Gestational-Age (AGA)