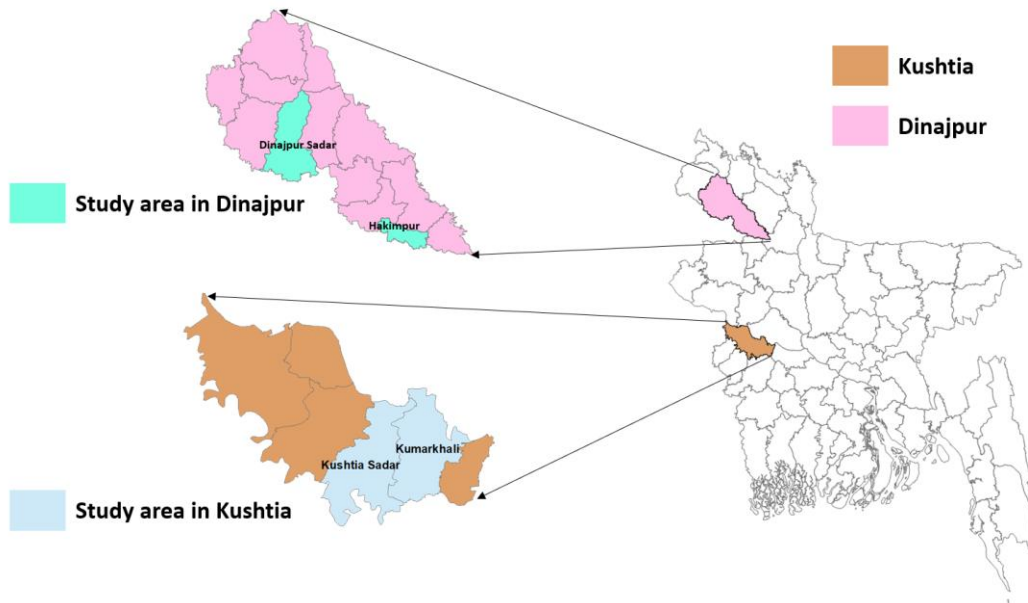


*Title: Introducing Standardised Register for Strengthening the Inpatient Management of Newborns and Sick Children: Implementation Research in Selected Health Facilities of Bangladesh*

*Online Supplementary Document*

**Supplementary Figure S1: Study sites**



**Supplementary Table S1: Inpatient register for newborns and sick children**

**(Columns 1-8 to be filled during admission & 9-14 after discharge to be filled at the time of discharge)**

Serial No	Registration No	Date & Time of Admission in Pediatric department	The place where the child first came in this facility	Child's identity, address and parent's mobile phone number	Information on referral in this facility	Physical examination at admission	Danger sign present at admission	
1	2	3	4	5	6	7	8	
			<input type="checkbox"/> IMCI Corner/Outdoor  <input type="checkbox"/> Emergency	Name of the child: Age: ..... Year ..... Month ..... Day Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other gender Mothers Name: Fathers Name: Mobile Number: Address: • House/Holding no: • Village/Moholla: • Union/Ward: • Upazila/Municipality/City Corporation: • District:	Was the child referred to this health facility? <input type="checkbox"/> Yes <input type="checkbox"/> No  From where was the child referred? <input type="checkbox"/> Other units of the same health facility <input type="checkbox"/> Govt medical college hospital/ Specialized hospital <input type="checkbox"/> District hospital <input type="checkbox"/> MCWC <input type="checkbox"/> Upazila health complex <input type="checkbox"/> UHC <input type="checkbox"/> Community Clinic <input type="checkbox"/> Private hospital /Clinic/ Chamber <input type="checkbox"/> NGO hospital /Clinic <input type="checkbox"/> Others (Specify): .....	Weight: ..... Kilogram Height: ..... cm Temperature: ..... <input type="checkbox"/> °C <input type="checkbox"/> °F Respiration Rate: ..... /min Heart Rate: ..... /min Oxygen Saturation/SpO <sub>2</sub> ..... % MUAC: ..... cm  Stridor: <input type="checkbox"/> PRESENT <input type="checkbox"/> ABSENT Edema: <input type="checkbox"/> PRESENT <input type="checkbox"/> ABSENT Anemia: <input type="checkbox"/> PRESENT <input type="checkbox"/> ABSENT Dehydration: <input type="checkbox"/> PRESENT <input type="checkbox"/> ABSENT Visible Birth defect: <input type="checkbox"/> PRESENT <input type="checkbox"/> ABSENT  <input type="checkbox"/> Others (Specify): .....	<b>0-59 days</b> <input type="checkbox"/> Not feeding well <input type="checkbox"/> Convulsion/ history of convulsions <input type="checkbox"/> Drowsy or unconscious <input type="checkbox"/> Movement only when stimulated or no movement at all <input type="checkbox"/> Fast breathing <input type="checkbox"/> Grunting <input type="checkbox"/> Severe chest indrawing <input type="checkbox"/> Hypothermia (< 35.5°C or < 96°F) <input type="checkbox"/> Hyperthermia (≥ 37.5°C or ≥ 99.5°F) <input type="checkbox"/> Central cyanosis <input type="checkbox"/> Bulging fontanel <input type="checkbox"/> Apnoea <input type="checkbox"/> Persistent Vomiting	<b>2-59 months</b> <input type="checkbox"/> Unable to drink or breastfeed <input type="checkbox"/> Convulsion/ history of convulsions <input type="checkbox"/> Lethargic or unconscious <input type="checkbox"/> Vomits everything
Investigation done	Care received during admission	Drugs received during admission		Final diagnosis with ICD 10 code during discharge		Outcome of treatment	Comments & signature	
9	10	11		12		13	14	
<input type="checkbox"/> CBC <input type="checkbox"/> S. Electrolytes <input type="checkbox"/> C Reactive protein <input type="checkbox"/> Blood sugar <input type="checkbox"/> Blood grouping and Rh Typing <input type="checkbox"/> S. Bilirubin <input type="checkbox"/> Blood C/S <input type="checkbox"/> Urine C/S <input type="checkbox"/> Urine RME <input type="checkbox"/> Chest X-ray <input type="checkbox"/> CSF study <input type="checkbox"/> Stool R/E <input type="checkbox"/> Others (Specify): ..... .....	<input type="checkbox"/> Thermal care <input type="checkbox"/> Oxygen <input type="checkbox"/> Cup feeding <input type="checkbox"/> NG feeding <input type="checkbox"/> IV fluid <input type="checkbox"/> Phototherapy <input type="checkbox"/> Oral antibiotic <input type="checkbox"/> Injectable antibiotic <input type="checkbox"/> Blood transfusion <input type="checkbox"/> Nebulization <input type="checkbox"/> Therapeutic milk (F75/F100) <input type="checkbox"/> Catheter <input type="checkbox"/> Others (Specify): .....	<input type="checkbox"/> Inj. Ampicillin Date from ..... To .....  <input type="checkbox"/> Inj. Ceftriaxone Date from ..... To .....  <input type="checkbox"/> Name of the Medicine: Date from ..... To .....  <input type="checkbox"/> Name of the Medicine: Date from ..... To .....	<input type="checkbox"/> Inj. Gentamicin Date from ..... To .....  <input type="checkbox"/> Name of the Medicine: Date from ..... To .....  <input type="checkbox"/> Name of the Medicine: Date from ..... To .....  <input type="checkbox"/> Name of the Medicine: Date from ..... To .....	<input type="checkbox"/> Newborn sepsis P36.9 <input type="checkbox"/> Septicaemia of older children A41.9 <input type="checkbox"/> Diarrhoea with severe dehydration A09 <input type="checkbox"/> Drowning W74 <input type="checkbox"/> Severe Pneumonia J18.9 <input type="checkbox"/> Bronchiolitis J21 <input type="checkbox"/> Bronchial asthma J45 <input type="checkbox"/> Respiratory tract infections J98.7 <input type="checkbox"/> Birth asphyxia P21 <input type="checkbox"/> Anaemia D64.9	<input type="checkbox"/> Severe Acute Malnutrition (SAM) E46 <input type="checkbox"/> Dengue A97.9 <input type="checkbox"/> Thalassaemia D56 <input type="checkbox"/> Convulsion of newborn P90 <input type="checkbox"/> Febrile convulsions R56.0 <input type="checkbox"/> Pyrexia of unknown origin R50.9 <input type="checkbox"/> Prematurity and low birth weight (LBW) P07 <input type="checkbox"/> Urinary tract infection N39.0 <input type="checkbox"/> Neonatal jaundice P59.9 <input type="checkbox"/> Meningitis G03.9 <input type="checkbox"/> Others (Specify).....	<input type="checkbox"/> Discharge with advice <input type="checkbox"/> Discharge on request <input type="checkbox"/> Discharge on risk bond (DORB) Time & Date of discharge: ..... <input type="checkbox"/> Referred Time & Date of Referral: ..... Place of referral: ..... <input type="checkbox"/> Absconded <input type="checkbox"/> Death Time & Date of Death ..... Cause of Death: ..... Has the MPDSR Death notification form been filled? <input type="checkbox"/> Yes <input type="checkbox"/> No		

**Supplementary Table S2: Background characteristics of the government appointed nurses receiving training on inpatient register (N=176)**

Characteristics	n	%
<b>Age</b>		
< 35 years	94	53
≥ 35 years	82	47
Missing	0	
<b>District</b>		
Kushtia	65	37
Dinajpur	111	63
Missing	0	
<b>Facility Type</b>		
District hospital	27	15
Sub-district hospital	149	85
Missing	0	
<b>Total (N)</b>	<b>176</b>	

**Supplementary Table S3: Influence of different patient, and facility related factors on level of observed agreement between healthcare providers and study nurses regarding reporting different variables in the inpatient register, presented as kappa coefficient (N=4849)**

	Treatment oxygen given	Treatment Inj. Gentamicin	Diagnosis- Severe Pneumonia	Refer
	Kappa	Kappa	Kappa	Kappa
<b>Patient related factors</b>				
<b>Age</b>				
0-28 days	0.28	0.74	0.74	0.74
29 days-11 months	0.41	0.76	0.66	0.66
12-59 months	0.54	0.84	0.71	0.71
<b>Sex</b>				
Male	0.46	0.78	0.70	0.70
Female	0.49	0.77	0.72	0.72
<b>Facility related factors</b>				
<b>Facility type</b>				
District hospital	0.36	0.73	0.70	0.77
Sub-district hospital	0.61	0.84	0.75	0.94
<b>District</b>				
Kushtia	0.46	0.76	0.72	0.79
Dinajpur	0.36	0.75	0.53	0.76
<b>Month of assessments</b>				
Month 1	0.39	0.72	0.69	0.80
Month 2	0.55	0.78	0.68	0.78
Month 3	0.48	0.82	0.75	0.79
<b>Total</b>	<b>0.47</b>	<b>0.77</b>	<b>0.71</b>	<b>0.79</b>