SOP 5: Paediatric Services

1. Purpose:

To develop a system for ensuring care of newborns & Children up to 18 years. Ensure tender care of acutely ill children. It includes a comprehensive approach to reduce mortality and to protect them from likely health risks they may face.

2. Scope: It covers new born and the child upto 18 years

3. Responsibility: Superintendent In Chief / Chief Medical Superintendent, Pediatrician, Medical officer and staff nurse.

4. Procedure:

S.No.	Activity	Responsibility	Reference
4.1	**Integrated Management of Neonatal & Childhood Sickness** Patients under the age of 2 months are classified as sick young infants and patients under 5 year of age are classified as sick child. Their management is done as per Integrated Management Neonatal and Childhood Illness approach. This includes: • Urgent Referral Services at facility (**Pink**) • Urgent Referral Facility at OPD (**Pink**) • Treatment Facility at OPD (**yellow**) • Home Management (**green**)	MO	IMNCI Guidelines
4.2	**Emergency Triage Assessment & Treatment-** Any sick young infant or child received in hospital is promptly attended and standard	MO/ Pediatrician/ Nursing Staff	WI- Steps in Management of Sick young Infants and Children

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	ETAT procedure is followed for management.		
4.3	**Triage-** Triage of all young infants and children is done in following categories as soon as they arrive at the hospital: • with Emergency signs **(E)** requiring Emergency Treatment • with Priority Signs **(P)** requiring rapid assessment and action • Non urgent **(N)** cases those who can wait Triage is done by assessing Airway, Breathing, Circulation, Coma, Convulsion & Dehydration (ABCD). If no emergency sign is seen than priority signs are looked for.	MO/ Pediatrician/ Nursing Staff	WI- Triage
4.4	**Assessment & Management of Emergency Signs-** Assessment and management of Emergency signs done as per standard FIMNCI Protocols. If any signs of hypothermia or hypoglycaemia are present their management is done simultaneously. **This includes -** • Assessment for breathing, central cyanosis and severe respiratory distress is done and Basic Life Support is given if required. • Assessment & treatment of shock in young infant & children with or without severe acute malnutrition. • Assessment and treatment of coma and convulsions. • Assessment and treatment of severe dehydration • Assessment and treatment of Hypoglycemia & Hypothermia	MO/ Pediatrician/ Nursing Staff	• WI Basic life support • Management of Shock in a child with SAM • Management of Shock in a child without SAM • WI for Assessment & Management of Coma & Convulsion • WI for Assessment & Management of severe dehydration • Management of Hypoglycemia • Management of Hypothermia

4.5	**Facility based care Sick Young Infant** This includes fluid management, Management of Hypoglycemia, Post resuscitation care of Asphyxiated newborn, management of septicemia, meningitis, diarrhea, tetanus neonatorum, Jaundice and monitoring of sick young infant.	MO/ Pediatrician/ Nursing Staff	• Management of sick young infants • Checklist for monitoring of Young Infants • Guidelines for management of Neonatal Jaundice
4.6	**Management of Low birth Weight Neonates** All neonates are given Vit. K intramuscular at birth. Neonates with birth weight less than 1800 gms are admitted in the hospital. Normal body temperature of neonates maintained through Kangaroo Mother care or through radiant warmer / incubator as advised by the pediatrician. Fluids and nutrition is provided as per birth weight or gestation of the neonate.	MO/ Pediatrician/ Nursing Staff	• WI for modes of providing fluid and feeding, feeding volumes and rates of increments in LBW (Low birth weight) neonates • Indication of Discharge of LBW neonates
4.7	**Referral and Transport of Neonates-** If management of newborn cannot be done at the hospital either due to lack of facilities (neonatal care unit) or due to need of tertiary care management, neonate is referred to higher center or other hospital. Receiving facility is communicated about the patient. Neonate is stabilized with respect to temperature, airway, breathing, circulation and blood sugar. A doctor/nurse/health worker is arranged for accompanying the neonate to receiving hospital if possible.	MO/ Pediatrician/ Nursing Staff	

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	Parents / attendants of newborn are communicated about the condition of new born sympathetically and instructions are given for care of newborn during transport. A referral note is prepared and given to patient's attendants describing condition of new born, reason for referral and treatment given.		
4.8	**Facility Based care of Sick Child**		
4.9	**Children Presenting with cough or difficult breathing –** Careful assessment of patient is done to arrive at a diagnosis that may be due to respiratory or non respiratory causes. Once a diagnosis is established management is done as per standard treatment guidelines.	MO/ Pediatrician/ Nursing Staff	Treatment for very severe and severe Pneumonia Management of Acute Asthma
4.10	**Management of Children presenting diarrhea** Assessment of child is done and case is classified as acute/persistent diarrhea or dysentery. Following cases are admitted in the hospital- • Children with severe dehydration • Children with SAM	MO/ Pediatrician/ Nursing Staff	Classification and management of Dehydration
4.11	**Management of children presenting with fever** Initial assessment of children is done and causes of fever are identified according fever with, without localized signs or rashes and symptoms. Diagnostic tests are done to confirm the cause. Cases of are managed as per standards treatment guidelines.	MO/ Pediatrician/ Nursing Staff	WI Management of severe and complicated malaria
4.12	**Management of Children with severe Acute Malnutrition-** Initial assessment of children is done	MO/ Pediatrician/	• Management of Severe

	and admitted in hospital if: • Weight for Height/length is < -3 • Z Score of median of WHO child growth standards • Bipedal Oedema Cases are managed as per standard treatment guidelines	Nursing Staff	malnutrition in Hospital. • General Treatment of Malnutrition
	Requisition of diagnosis and receiving of the reports: Patient file is checked for investigations to be done and immediate treatment plan. **For investigations** – necessary investigations slips are made, signed, specimen taken, requests and sample sent to Lab. **For Radiology** – request is filled and signed and sent to Radiology. Pharmacy request for drugs and consumables as prescribed in patient file. **Investigation reports are received** – nurse signs under received column in lab register. Report is entered into patient case file on investigation sheet and report is placed in patient file.		
	Procedure for providing free diet to the patient as per their requirement		
4.13	**Infection Control –** Standard Infection Control Measures are taken to ensure prevent health care associated infections and safe work environment to service providers. These measures broadly include : • Strict adherence to standard hand	Infection Control Nurse/ Staff Nurse / MO/ Obstetrician	SOP for Hospital Infection Control SOP for Hospital Waste Management SOP for Housekeeping Management Infection Control

	washing Practices • Use of personal protective equipment when handling blood, body substances, excretions and secretions • Appropriate handling of patient care equipment and soiled linen • Prevention of needle stick /sharp injuries • Environmental cleaning and spill management • Appropriate handling of Biomedical Waste		Measures in Normal & C-section Deliveries
	Disinfection: Disinfection of equipment and furniture is carried out with bleach solution at least once a day or as required.	Housekeeping staff or General duty attendant	
	Procedure for sorting, cleaning and distribution of clean linen to patient: Refer to SOP Laundry services	Housekeeping staff or General duty attendant	
	Procedure of Discharge: <u>Decision for Discharge</u>: Decision is made by the Paediatrician to discharge the patient in the next 24 hours and entry is done in patient's file / case record and order is given to medical officer to prepare provisional discharge summary. Provisional discharge summary is made on the basis following documents – ▪ History record sheet ▪ Physical examination ▪ Progress sheet ▪ Investigations record		

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	On the day of discharge, confirmation of patient discharge is done. Counseling of parents for the care of child is done before discharge – diet, medications, follow up procedure etc., as in discharge summary, is discussed with patient's parents. Patient's follow up visits are pre scheduled by Primary treating consultant. LAMA Patients: If patient's attendants want to take discharge against medical advice, then LAMA consent is taken by the patient on his file record/ BHT. The clinician explains the consequences of this action to the child's attendants and the same is documented. Discharge summary is provided to the patient.		
	The following are the Free Entitlements for Sick newborns till 30 days after birth. This has now been expanded to cover sick infants: Free treatment Free drugs and consumables Free diagnostics Free provision of blood Exemption from user charges Free Transport from Home to Health Institutions Free Transport between facilities in case of referral Free drop Back from Institutions to home		JSSK Policy

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Triage

ASSESS FOR EMERGENCY SIGNS (In all cases)

TREAT:
- Check for head/neck trauma before treating child (do not move neck if cervical spine injury possible)
- Give appropriate treatment for + ve emergency signs
- Call for help
- Draw blood for glucose, malaria smear, Hb)

AIRWAY AND BREATHING	• Not breathing or gasping **or** • Central cyanosis **or** • Severe respiratory distress	→ Any Sign Positive	• Manage airway • Provide basic life support (Not breathing/gasping) (Chart 3) • Give oxygen • Make sure child is warm*
CIRCULATION	Cold extremities **with:** • Capillary refill longer than 3 sec, **and** • Weak and fast pulse	→ IF POSITIVE Check for severe acute malnutrition	• If the child has any bleeding, apply pressure to stop the bleeding. Do not use a tourniquet • Give oxygen • Make sure child is warm* • Insert I/V and begin giving fluids rapidly (Chart 4) If not able to insert peripheral I/V, insert an umbilical or intraosseous line **IF SEVERE ACUTE MALNUTRITION** (Age ≥2 months) **If lethargic or unconscious:** • Insert I/V line and give IV glucose and fluids (Chart 5) **If not lethargic or unconscious:** • Give glucose orally or by NG tube • Proceed immediately to full assessment and treatment
COMA CONVULSING	• Coma **or** • Convulsing (now)	→ IF COMA OR CONVULSING	• Manage airway • Position the child • Check and correct hypoglycaemia • If convulsions continue give I/V calcium in young infants • If convulsions continue, give anticonvulsants
SEVERE DEHYDRATION (ONLY IN CASES WITH DIARRHOEA)	Diarrhoea plus any two of these: • Lethargy • Sunken eyes • Very slow skin pinch	→ DIARRHOEA plus TWO SIGNS POSITIVE Check for severe acute malnutrition	• Make sure child is warm* • Insert I/V line and begin giving fluids rapidly following PLAN C **IF SEVERE ACUTE MALNUTRITION** (Age ≥2 months) • Do not start I/V immediately • Proceed immediately to full assessment and treatment

* Check temperature; if baby is cold to touch, rewarm

IF THERE ARE NO EMERGENCY SIGNS LOOK FOR PRIORITY SIGNS:

These children need prompt assessment and treatment

• Tiny baby (<2 months)	• Respiratory distress (RR > 60/min)	• Temperature <36.5°C or > 38.5°C
• Bleeding	• Trauma or other urgent surgical condition	• Restless, continuously irritable, or lethargy
• Pallor (severe)	• Referral (urgent)	• Poisoning
• Malnutrition: visible severe wasting	• Oedema of both feet	• Burns (major)

NON-URGENT: Proceed with assessment and further treatment according to child's priority

Note: If a child has trauma or other surgical problems, get surgical help or follow surgical guidelines

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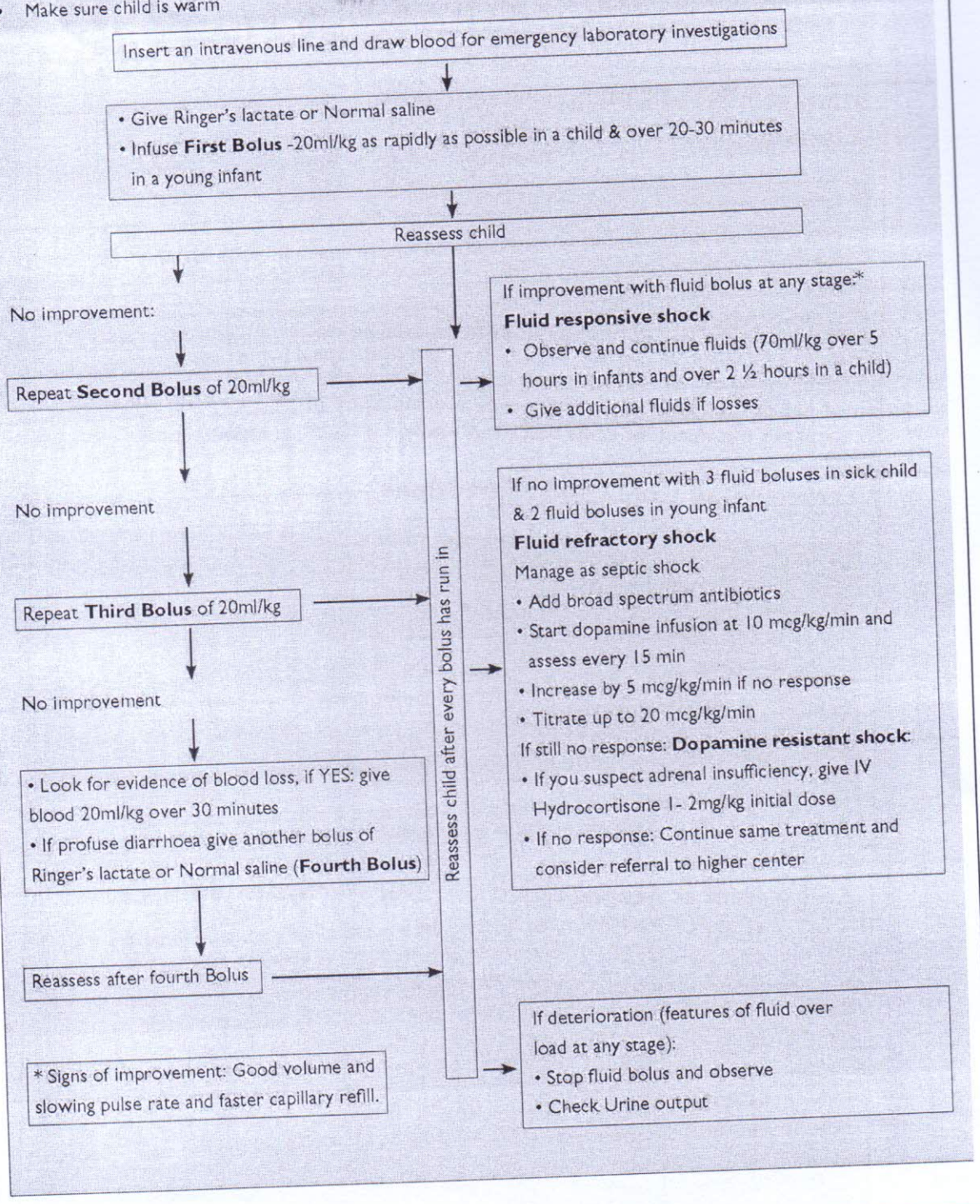
Management of Shock in a child without Severe Acute Malnutrition

- Weigh the child. Estimate the weight if child cannot be weighed or weight not known
- Check that the child does not have severe acute malnutrition
- Give Oxygen
- Make sure child is warm



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Management of Coma & Convulsions
Assessment of Consciousness-

To help you assess the conscious level of a child is, a simple scale (AVPU) is used:

A Is the child Alert? If not,

V Is the child responding to Voice? If not,

P Is the child responding to Pain?

U The child who is Unresponsive to voice (or being shaken) AND to pain is Unconscious.

A child who is not alert, but responds to voice, is lethargic. An uncons ious child may or may not respond to pain. **A child with a coma scale of "P" or "U" will receive emergency treatment for coma described below.**

Treatment of Coma and convulsions

COMA	CONVULSION
• Manage the airway • Position the child (if there is a history of trauma, stabilize the neck first) • Check the blood sugar • Give IV glucose	• Manage the airway • Position the child • Check the blood sugar • Give IV glucose • Give IV calcium in young infants • Give anticonvulsant

Assessment & Management of Severe Dehydration
Assessment -

SEVERE DEHYDRATION (ONLY IN CASES WITH DIARRHOEA)

Diarrhoea plus any two of these :
- Lethargy
- Sunken eyes
- Very slow skin pinch

→ DIARRHOEA PLUS TWO SIGNS POSITIVE
Check for severe acute malnutrition

- Make sure child is warm.
- Insert IV line and begin giving fluids rapidly following PLAN C

IF SEVERE ACUTE MALNUTRITION (Age ≥2 months)
- Do not start IV immediately
- Proceed immediately to full assessment and treatment

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Management of Severe dehydration in emergency setting (Plan C- without SAM)

- Start IV fluid immediately. If the child can drink, give ORS by mouth while the drip is set up. Give 100 ml/kg Ringer's lactate solution (or, if not available, normal saline), divided as follows :

AGE	First give 30 ml/kg in	Then give 70 ml/kg in
Infants (under 12 months)	1 hour*	5 hours
Children (12 months up to 5 years)	30 minutes*	$2^1/_2$ hours

* Repeat once if radial pulse is still very weak or not detectable.

- Reassess the child every 15-30 minutes. If hydration status is not improving, give the IV drip more rapidly.
- Also give ORS (about 5 ml/kg/hour) as soon as the child can drink: usually after 3-4 hours (infants) or 1-2 hours (children).

Weight	Volume of ORS solution per hour
<4 kg	15 ml
4 - <6 kg	25 ml
6 - <10 kg	40 ml
10 - <14 kg	60 ml
14 – 19 kg	85 ml

- **If IV treatment not possible, give ORS 20 ml/kg/hour for 6 hours(120 ml/kg) by NG tube**
- Reassess an infant after 6 hours and a child after 3 hours. Classify dehydration. Then choose the appropriate plan (A,B, or C) to continue treatment
- Give oral antibiotic for cholera if child 2 years or older.
- If possible, observe the child for at least 6 hours after rehydration to be sure that the mother can maintain hydration by giving the child ORS solution by mouth.

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Management of Hypoglycemia

- Insert IV line and draw blood rapidly for emergency laboratory investigations
- Check blood glucose; if low (<45 mg/dl in well nourished or <54 mg/dl in a severely malnourished child) or if dextrostix is not available :

Neonatal Hypoglycemia:

- Give 2 ml/kg of 10% glucose solution rapidly by IV injection.
- Start infusion of glucose at the daily maintenance volume according to the baby's age so as to provide 6 mg/kg/min of glucose in all cases of neonatal hypoglycemia
- **Recheck the blood glucose in 30 minutes. If it is still low,** repeat the bolus of glucose (above) and increase concentration of glucose to 8 and if required to 10 mg/kg/min in the infusion. **Do not discontinue the glucose infusion abruptly to prevent rebound hypoglycemia**.

If hypoglycemia is persisting despite above management, give one dose of Hydrocortisone: 5 mg/kg and refer to a higher health facility for management of refractory / persistent hypoglycemia.

Hypoglycemia beyond neonatal period:

- Give 5 ml/kg of 10% glucose solution rapidly by IV injection.
- Recheck the blood glucose in 30 minutes. If it is still low, repeat 5 ml/kg of 10% glucose solution.
- Feed the child as soon as conscious.

If not able to feed without danger of aspiration, give:

- IV fluids containing 5-10% glucose (dextrose), or
- Milk or sugar solution via nasogastric tube.

To make sugar solution, dissolve 4 level teaspoons of sugar (20 grams) in a 200 ml cup of clean water.

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