




GOVERNMENT OF MAHARASHTRA

STATE FAMILY WELFARE BUREAU MAHARASHTRA

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<u>Health Services</u>		No. SFWB/RCH/Child Health/D-15C/Paediatric Guideline/72342-414 /2016 Date 26/10/2016

To,

- **Civil Surgeon,**
District Hospitals(All)
- **Medical Superintendents,**
Women Hospitals.....(All)
- **Medical Superintendents,**
General Hospitals.....(All)

Subject : Strengthening Facility Based Pediatric Care

Ref : GOI letter D.O.No. Z-28020/213/2016-CH, Dated 8th Sept 2016

Facility based care is complementary to community level interventions in bringing down childhood morbidity and mortality. Newborns and children referred from communities and primary healthcare facilities are often seriously ill and at high risk of dying. Those reaching health facilities need to be managed appropriately and without delay in instituting care. This objective can be achieved by establishing a well-organised unit, adequate human resources, drugs, equipment and other logistics that provides functional quality of care consistent with clinical standards.

The vision for paediatric care at District Hospital is to set up a comprehensive unit comprising of the following sub-units:

- I) Paediatric Outpatient Facility (including immunisation and counselling services)
- II) Emergency Triage Assessment and Treatment (ETAT) Facility
- III) Paediatric Inpatient Facility
 - High Dependency Unit
 - Paediatric Ward
 - ORS Zinc Corner
 - Isolation Room

IV) Auxiliary Facilities (eg; play area, hospital kitchen)

The general paediatric care facility will function in close coordination with specialised units that already have approved guidelines for operationalisation and

include the following:

- Newborn care facilities (Newborn Care Corners, Newborn Stabilisation Unit, Special Newborn Care Unit)
- Nutrition Rehabilitation Centre
- District Early Intervention Centre

For most effective use of these facilities, horizontal integration across general and specialised units is required.

Standard package of services to be delivered by Paediatric Care Unit at DH/WH/GH/SDH is as follows:

Unit	Services	Location
OUTPATIENT SERVICES		
Paediatric OPD	<ul style="list-style-type: none"> • Early diagnosis & curative services on ambulatory basis for common childhood ailments • Screening for admission to hospital • Follow up care & care after discharge • Rendering of preventive healthcare services through provision of immunisation, screening, counselling • Promotion of overall growth and development of children by health education, health & nutrition counselling 	<ul style="list-style-type: none"> • Part of general centralised OPD or • Separate Paediatric OPD
EMERGENCY SERVICES		
ETAT	<ul style="list-style-type: none"> • Assessment of children for emergency signs, without delay, on presentation to health facility • Triage by qualified health professional • Management of emergency conditions/ implementation of emergency guidelines e.g. for convulsions, neurological deficits, shock and respiratory distress • Stabilization of children (presenting with emergency sign) before transfer to inpatient ward 	<ul style="list-style-type: none"> • In general emergency area Or • Trauma Centre
INPATIENT SERVICES		
High Dependency Unit	<ul style="list-style-type: none"> • Provision of close observation, monitoring and treatment to children who are, or have a significant potential to be physiologically unstable • Management of children requiring constant oxygen therapy, cardiorespiratory monitoring, inotropic support 	<ul style="list-style-type: none"> • In the paediatric Ward

Paediatric ward	<ul style="list-style-type: none"> • Investigation and treatment of admitted sick children as per national standard (F-IMNCI) • Monitoring and supportive care for sick children • Identification & referral of children requiring care at tertiary facilities 	<ul style="list-style-type: none"> • Separate Paediatric ward
ORS and Zinc Corners	<ul style="list-style-type: none"> • Assessment of dehydration • Management according to degree of dehydration • Rational use of drugs in children with diarrhoea/dysentery • Demonstration of ORS preparation • Counselling on feeding, danger signs, prevention of diarrhoea 	<ul style="list-style-type: none"> • In the ward area, preferably adjacent to paediatric ward or in emergency area
Isolation room	<ul style="list-style-type: none"> • Segregation and management of children with infectious diseases (source isolation) • Prevent susceptible paediatric patients from being infected (protective isolation) 	<ul style="list-style-type: none"> • Separate room/s, preferably close to paediatric ward

I) Outpatient Department (OPD)

Outpatients is an important wing of the hospital serving as the first point of contact between the patient/caregivers and the hospital staff. In all District Hospitals children should be seen in separate OPD/room by the designated health professional (paediatric specialist)/adequately qualified doctor.

Location

The paediatric outpatient clinic can be part of centralised OPD along with other specialities. It should however be made clear that the Emergency Department will be functional during general OPD hours. This is important because children with real or perceived emergency medical condition may have to wait for a long time in the general OPD before they are attended.

Otherwise the Outpatient Department should be equipped to handle emergencies.

Timing

The paediatric OPD must function from 8am to 1 pm and 3pm to 6 pm in the evening.

The timings should be prominently displayed on the board in the reception and waiting area.

Size & design

Entrance area should have easy to follow signage system that helps parents-attendants find their way to the outpatient room for children. Opening and closing hours for the children's outpatient should be clearly displayed. Services (such as drugs,

diagnostics) that are offered free of cost for children of specific age groups as per the government policy should be displayed.

Reception & registration area in the centralised OPD can preferably have a separate counter and token system for paediatric patients so that they can be attended as priority and waiting time can be cut down for infants and young children.

Waiting area with adequate seating arrangement should be provided adjacent or close to the paediatric clinic. Waiting area at the scale of 1 square ft/per average daily patient is recommended by IPHS for District Hospitals, revised 2012.

Consultation room: Doctor's chamber should have ample space to seat 4-5 people. A single room for consultation 130-150 square feet in area with space for doctor's chair, patient's stool, follower seat, wash basin, examination couch, and equipment for examination is adequate. The room should have provision for handwashing (a washbasin) and clean wipes.

Privacy must be ensured during physical examination. Due care must be taken in examining older female child; she should be examined in the presence of a relative or a female staff even if it is not a medico legal case.

Patients should be seen on first come first basis. However, in case of emergency out of turn consultation must be provided.

Standard Care recording format

Standardised format for recording patient information and clinical details should be used. **(Attached in Annexure 1)**

Equipment for paediatric outpatients clinic

Equipment related to specialty examination should be available in concerned room. All OPD should have one set of equipment for resuscitation of patients collapsing suddenly. Given below the list of equipment in OPD:

Equipment	Quantity
Work table/ physician's desk & chairs	1
Examination couch	1
Revolving stool (for patient)	1-2
Almirah/ wall mounted cabinets (for storage of consumables, records) etc.	1-2
Follower seat	2
X ray view box	1
Weighing scales (digital) for infants and children	1 each
Torch	1
Spatula (disposable)	multiple
Non-invasive blood pressure monitoring (infant, child, adult cuffs)	1 each
Digital thermometer	1-2
Stethoscope (paediatric)	1

Otoscope	1
Measuring tape	1
Disposables (eg; gloves)	As per consumption
Stationery (register, OPD case recording format)	As per need
Bell	1
Weight for height tables	1 set
Display material (posters etc.)	D
Resuscitation equipment	1 set
Stadiometer	D
Pulse oximeter	D

General amenities

IEC panels and audio-visual aids (eg; television sets) intended to impart education on optimal feeding practices, immunisation, and diarrhoea prevention, etc. should be arranged.

The list of the 'Drugs Available' should be displayed outside the pharmacy and updated periodically. As far as possible the drugs prescribed by doctors should be those available in the hospital pharmacy.

JSSK guidelines must be followed for provision of diagnostics and drugs, free of cost, to all children upto one year of age.

Examining children with history of sexual assault

Separate provision should be made in the emergency area and the OPD for the assessment and examination of medico-legal cases such as rape/sexual assault survivors. Prescribed guidelines must be followed in this regard. Details are provided in the 'Guidelines & Protocols for Medico-legal care for survivors/victims of sexual violence, published by Ministry of Health & Family Welfare, Government of India, 2014'.

Hirkani Kaksha-IYCF Counselling Centre

IYCF Counselling Centre are established in all DH/WH/SDH. The service provision at this center are:

- Assessment of physical growth & development
- Review of immunisation record
- Communication and counselling on optimal infant & young child feeding practices
- Advise & provision for micronutrient supplements (Vitamin A and iron syrup)
- Information about child and maternal health services available through community outreach
- Lactation management for referral cases

A Nutrition Counsellor/ IYCF counsellor and one staff (Nurse, ANM or equivalently trained personnel) are appointed to manage this centre and is available for fixed hours

(coinciding with timing of outpatient services) to counsel and address referral cases. **All children below two years** should be directed from outpatients to the counselling centre for assessment of physical growth & immunisation status (if not already done in the OPD) and age-appropriate counselling services.

Group counselling sessions, on fixed days and time, should be organised at pre-decided contact points in the OPD. For children born prematurely or with low birth weight, one to one counselling session should be conducted with the mother/caregiver and follow up visits to the centre requested.

At DH/WH/SDH, advanced set of skills are required for dealing with concerns and problems related to lactation failure or breast problems. At least two service providers (NRC Dietician, PPTCT counsellor and other counsellor) trained in advanced lactation management and IYCF counselling skills should be available to deal with difficult and referred cases. IYCF counselling centre should facilitate mother's/caregiver's access to these providers or ensure their availability in the centre on pre-decided days and time.

Equipment for Hirkani Kaksha-IYCF counselling centre

- Furniture (table, chair, stools)
- Digital weighing scales for infants & children
- Stadiometer
- Infantometer
- WHO growth standards (Charts)
- MUAC tapes
- Mother Child Protection Card
- Dolls and breast models (such as for demonstrating expression of breastmilk)
- Steel bowl, spoon
- IEC (audio-visuals and print material)
- Job aides (flip chart etc.)

In order to improve the efficiency and effectiveness of outpatient services, the role of paramedical staff is vital. At least one paramedical staff should work alongside each paediatrician in the OPD to ensure that all children are weighed & weight correctly recorded, immunisation status is checked, children < five years are screened for SAM using MUAC, and those with emergency and priority signs are triaged. **Tasking senior nurses for registration purposes should be discouraged; these roles should be shifted to clerical staff or trainee nurses or other suitable personnel.**

Where services of the nutrition counsellor is available, caregivers of all children below two years presenting to the OPD should receive nutrition information and counselling either before or following paediatric consultation.

II) Setting up Paediatric Emergency Triage Assessment & Treatment (ETAT)

Many deaths in hospital occur within 24 hours of admission. Some of these deaths can be prevented if very sick children are quickly identified on their arrival and treatment is started without delay.

Triage should be carried out as soon as a sick child arrives in the hospital, well before any administrative procedure such as registration.

All children attending an emergency care setting should be visually assessed immediately upon arrival and receive an initial triage assessment within 15 minutes of arrival or registration by a competent and appropriately trained nurse or doctor.

Location

Triage can be carried out in different locations – e.g. in the emergency room, or in a ward if the child has been brought there directly. Ideally triage should be done in both these places.

This means that paediatric ETAT is integrated in the overall system of management of emergencies and the resources already available in this place /department can be mobilised.

Irrespective of its location, an area of at least 150 square feet and preferably bigger should be available for examination by the nurse or doctor and instituting emergency treatment. The space should be sufficient to accommodate an examination table, a radiant warmer, crash cart/emergency care trolley, equipment (such as suction pump, oxygen delivery system), hand washing facility space for patient trolley (stretcher) to be brought in and for health providers to be able to work around the examination table.

Equipment for paediatric emergency

Equipment	Essential /desirable	Quantity
Examination table (for receiving patients)	E	1
Radiant warmer	E	1
Emergency drug trolley	E	1
Patient trolley(for transport)	E	1
Electric & foot operated suction pumps	E	1 each
Glucometer + Test strips	E	1
Nebuliser	E	1
Self-inflating bags & mask with oxygen reservoir: newborn (250 ml), infant (500) & paediatric (750 mL)	E	1 of each size
Newborn, Infant, child masks (00,0,1,2)	E	1 of each size
Oxygen concentrator (if assured power supply) or oxygen cylinder (as backup) with regulator, pressure gauge and flow meter	E	1
Infusion pump	E	2
Laryngoscope handle and blades:		
curved 2,3; straight 1,2; handle 0 size	E	2 sets of each size
Tray with needle & suture	E	1
Needle cutter	E	1
Multiparameter monitor & probes	D	1

Pulse oximeter (adult / paediatric probes)	E	1
Noninvasive blood pressure monitoring (infant, child cuffs)	E	1 each
Digital thermometer	E	2
Otoscope, stethoscope (paediatric & adult)	E	1 each
Diagnostic		
Portable X ray*	Portable X ray*	Portable X ray*
Portable Ultrasound machine*	Portable Ultrasound machine*	Portable Ultrasound machine*

Drugs and Consumable for paediatric emergency

List of drugs
Paracetamol (oral, per rectal)
Salbutamol Respiratory solution/MDI
Ipratropium nebuliser solution
Corticosteroids (hydrocortisone, dexona inj.); (prednisolone tab)
Inj. Furosemide
Inj. Diazepam
Inj. Phenobarbital
Inj. Phenytoin
Inj. Midazolam
Ampicillin , Amoxicillin,Cloxacillin
3rd generation Cephalosporin (Cefotaxime, Ceftriaxone)
Inj. Gentamicin/ Amikacin
All anti-malaria drugs needed according to national malaria control programme (Inj. Artesunate, Quinine / Artemisinin combination therapy)
Dopamine/Dobutamine
Digoxin elixir
Adrenaline inj.
Calcium Gluconate inj.
Sodium Bicarbonate inj.
Ranitidine inj.
Mannitol 20% inj.
Antihistaminics (Inj. Avil)
Potassium chloride injection (KCL)
Magnesium sulphate Inj.
Vitamin A, K inj.
Povidone-iodine for local application, spirit swabs
ORS
Glutaraldehyde (for disinfection)/formaldehyde

Consumables
Adhesive tape, at least 2 different sizes
IV Infusion sets
IV Cannulae (size 22 or 24 G)
Syringes 1ml, 2 ml, 5 ml
Disposable needles 22,23,26 G
Bone marrow aspiration needle 18G
Nasogastric tubes (sizes 6, 8,10,16 fr)
Suction catheters: size 6-7 F.G.
Oxygen tubing, nasal prongs or catheters
Nasal cannulae (infant, child, adult)
Oral airways (sizes 0–5)
Nebulising kits (single patient use)
Endotracheal tubes, uncuffed (2.5-5.5)
Dipstix for urine test
Ringer's lactate or normal saline
Half-normal saline with 5% glucose solution
Glucose 10% or 50%
General Items
ETAT algorithms /flow charts
Printed drug dosages
Measuring tape
Weighing scales (digital) for infants and children
Heating source (for infant warming) (oil filled heater)
Clock
Blankets
Torch

Emergency management should be done only by qualified nurses and doctors. It is preferable that both nurses and doctors have undergone ETAT training and/or F-IMNCI training in the last 2 years.

Laboratory support: While a wide range of investigations may be routinely available, essential diagnostic tests should be available 24x7. Specimens sent from emergency should be processed on a priority and results sent back in the specified time period.

Essential lab tests	Desirable lab tests
Haemogram with peripheral smear	Test for dengue
Routine microscopy urine	Blood culture with sensitivity
Rapid diagnostic test for malaria	Urine culture with sensitivity
Blood glucose	Serum electrolytes
Test for typhoid	Serum calcium
Serum bilirubin	Kidney function Test
Blood grouping & cross matching	Liver Function Test

Stabilization of children before transfer to the paediatric ward

Stabilisation can be continued on the high dependency beds made functional in the emergency area or the paediatric ward.

Stabilisation includes some or all of the following:

- Securing the airway.
- Establishing secure venous access.
- Correcting poor perfusion and acidaemia.
- Obtaining a full history.
- Carrying out a full physical examination.
- Performing baseline investigations, eg; a chest X-ray, electrolytes or glucose.
- Performing acute 'aetiological' investigations, eg; blood culture before giving antibiotics.
- Initial treatment of the causative pathology, eg; bronchodilators for asthma and antibiotics for sepsis.
- Deciding on the location of continuing care.
- Arranging transfer to an appropriate unit (like paediatric ward) or health facility.
- The transfer itself.

III) Setting up Paediatric Inpatient Services

A) Setting up High dependency unit (HDU) in Paediatric Ward

The High Dependency Unit (HDU) provides specialist care for children requiring more observation, intervention or monitoring than can be safely provided on the general wards: it acts as a 'step up' from the wards.

Establish HDU within or adjacent to the paediatric ward. It is preferable to allocate a separate room for HDU. However if it is located within the ward, it should be partitioned off from rest of the ward area and located close to the nursing station.

HDU will require 425-500 square feet of space in order to accommodate 4 beds, equipment, hand washing & toilet facilities.

Admission and discharge criteria

All children with emergency signs and unstable vital signs are to be admitted to HDU. Once the underlying physiologic condition that prompted High dependency care has been resolved or the disease process has stabilised, the child can be considered for step down (to ward) from high dependency care.

Equipment for HDU

Equipment	Quantity
Beds	4-6
Neonatal cot with radiant warmer/servo controlled radiant warmer	1
X ray view box	1
Tables & chairs for staff	2+4
Bedside stools	4
IV stands	4-6

Electric & foot operated suction pumps	4
Oxygen concentrator (if assured power supply) or oxygen cylinder (backup) with regulator, pressure gauge and flow meter	2/3
Heating source (oil filled heater)	2
Pulse oximeters (adult / paediatric probes)	2
Noninvasive blood pressure monitoring (infant, child, adult cuffs)	2
Digital thermometer	4
Otoscope, stethoscope (paediatric)	1 each
Patient trolley(for transport)	1
Glucometer with test strips	1
Nebuliser	2
Infusion pumps/syringe pump	4
Needle cutter	1
Monitors	3-4 Desirable
Resuscitation equipment set	1
Almirahs for storage of consumables, drugs, records	2

B) Paediatric Ward

The Paediatric ward provides care for children from 1 month of age up to 12 years, who meet the criteria for admission. The ward should have provision for one parent -attendant to stay (per patient) on the ward overnight.

Recommended Service Mix (suggested actions) for different illnesses concerning paediatric speciality as per the IPHS 2012 for District Hospitals have been adapted and are as follows:

Name of the Illness	Suggested actions
1 ARI/Bronchitis Asthmatic	Assess & classify severity Investigate Diagnose Manage as per clinical protocols (Nebulization , Oxygen)
2 Diarrhoeal Diseases	Diagnose Treat ORT Centre or DTU Referral of cases requiring specific investigation for malabsorption syndrome
3. Severe acute malnutrition, vitamin deficiencies and micronutrient deficiencies	Diagnose Management of acute illness/medical complications Investigate, and then continue management in NRC Treat with help of Dietician

4. Pyrexia of unknown origin	Diagnose Treat Refer cases requiring specific investigations
5. Haematological Disorders	Investigate & Treat Referral of cases requiring blood component therapies not available at DH
6. Diseases of Bones and Joints	Investigate & Treat
7. Childhood Malignancies	Investigate then refer & then supportive treatment in liaison with the specialized centre & manage
8. Liver Disorders	Investigate & Manage Refer cases with hepatic failure and those requiring further investigation for confirmation of specific etiological diagnosis
9. Paediatric Surgical Emergencies	Investigate & Manage Refer cases for which surgical intervention is not available at DH
10. Poisoning, Sting, Bites	Treat

Conditions when referral to tertiary level is required:

- Intractable shock
- Intractable convulsions
- Respiratory failure
- Acute renal failure
- Acute hepatic failure
- Intractable congestive heart failure
- Conditions requiring paediatric surgical intervention
- Conditions requiring specialised laboratory services
- Childhood malignancies
- Metabolic disorders
- Neurological conditions for which investigations and treatment not available at DH level
- Blood component therapy

Location of paediatric ward and allocation of beds

As per the IPHS 2012, 8-10% of hospital beds (depending on the total bed strength of

the DH) are to be allocated to paediatric ward. Assuming that most District Hospitals on average are 300 bedded, the paediatric ward should have 24-30 beds.

Size & design

The paediatric ward should be designed with the objective of facilitating the nursing staff to observe each patient and keep a close watch on them. It should be open ward arrangement which will have width of 20 feet. The space between 2 rows of beds is 5 feet and space between two beds 3.5-4.00 feet. Clearance of bedhead from the wall is 1 feet and 2 feet from the opposite bed.

The nursing station requires about 20 x 20 feet with sisters' changing room and toilet, cupboards or lockers. The procedure room, attached or adjoining to the ward, should include an examination couch, dressing trolley, hand washing facilities and routine equipment such as spot light, BP instrument, stethoscope, etc.

Ambience

Colours play an important role in creating cheerful ambience of the paediatric wards. Colourful mural on the wall with cartoons, under water themes or jungle themes creates a soothing environment and its helps children ease their anxiety and trauma.

Sanitary arrangements

For maintaining hygiene, there should be sufficient and adequate toilets which are easily accessible; mothers should have access to running water and to an appropriate space, near the ward, to wash themselves and their child.

Equipment in paediatric ward (determine as per bed strength)

Weighing scales for children
Measuring board to measure length and height
Paediatric & adult stethoscopes
Thermometers
Heat source(for keeping the ambient room temp)
Oxygen source: oxygen cylinder /oxygen concentrator/ central supply
Flow-meters and humidifiers for oxygen
Equipment for the administration of warm and humidified oxygen: nasal prongs, catheters , masks
Self-inflating bags for resuscitation 250ml, 500ml
Masks: infant & child size
IV-giving sets with chambers for paediatric use (pedia drip set)
IV cannulas of paediatric size (22-24)
NG-tubes, paediatric size (8,10 FG)
Suction equipment (Catheter 6,8,10FG)
Nebulisers for administration of salbutamol
Spacers with masks for administration of metered doses (spray) of salbutamol
Torch
Pulse Oximeter
Needle cutter

Drugs that should be available in the paediatric ward

Paediatric Maintenance fluid (Isolyte-p)
Glucose 10 % IV
Glucose 5 % IV
Glucose 25 % IV
Normal saline IV
Ringer's lactate IV
Salbutamol Respiratory solution/MDI
Corticosteroids IV or oral
Furosemide IV
First line anti-convulsant: *Diazepam/Midazolam IM, IV
Phenobarbital IM, IV.
Ampicillin / Amoxicillin
Benzyl penicillin
Anti-staphylococcal penicillin (e.g. Cloxacillin)
3rd generation Cephalosporins oral & IV
Chloramphenicol
Ciprofloxacin
Gentamicin/ Amikacin
Co-trimoxazole
All anti-Tb drugs according to National Tuberculosis Control Programme
All anti-malaria drugs according to National Malaria Control Programme: Chloroquine, Artesunate, Quinine
Dopamine/Dobutamine
Anti-fungal (including topical applications)
Digoxin
Iron syrup (Nat Iron Plus)
Iron tablets (paediatric)
Vitamin A oral
Vitamin K injection
ORS
Adrenaline
Vaccines
Calcium Gluconate

C) ORS Zinc Corner

This is a permanent area assigned close to Paediatric Ward & in OPDs.

Children with diarrhoea are given ORS by parent/ attendant, under supervision. There is adequate ventilation and access to toilet and washing facilities in the vicinity. ORS is mixed in bulk volumes.

Requirements

- 1 Table, 2-3 chairs, 1-2 benches
- Tray or trolley for supplies
- ORS packets & potable drinking water
- Zinc tablets
- Jars (commonly available sizes and one marked with volume measurements)
- Reconstituted ORS in a clean container
- 5-10 glasses (200 ml), bowl / cup, one litre vessel, clean spoons
- Health education materials including pamphlets, and posters on preparation of ORS , diarrhoea prevention, and management including feeding during and after diarrhoea, use of zinc
- IV stands, paedia drip sets
- IV fluids
- IV Cannula
- Antibiotics
- Linen supplies
- Waste bins, needle cutter
- Weighing scales
- Registers for record keeping
- Soap, wash basin and towel rack
- Handwash/handrub

D) Isolation room

An isolation room is a specially constructed area in a hospital designed for housing patients in order to prevent patients with an infectious disease (eg; meningococemia, rabies, H1N1 infection) from infecting others (source isolation)and/or prevent susceptible patients from being infected (protective isolation)

IV) Additional requirements for Physical Infrastructure, Infection Control & Patient Safety

- **Barrier free access:** for the differently abled children should be made as per the guidelines. This includes making provisions for more lifts, ramps, and asking the Public Works Department (PWD) to implement designs compliant with wheel chairs, vertical and horizontal access, accessible sanitary facilities and signage to assist the visually challenged.
- **Privacy & confidentiality:** All spaces where consultation and physical examination is carried out should have provision for providing auditory and visual privacy and mitigating unintended interruptions and distractions.
- **Power supply:** The emergency area and HDU should have a 24-hour uninterrupted power supply. Where power supply is irregular, back up is required and atleast 1-2 outlets should be connected to the generator supplying the vital areas of the paediatric unit.
In the HDU, electrical outlets will be required for individual beds for use of suction machines and oxygen concentrators. Availability of outlets of both 5 amperes and 15 amperes will facilitate the use of various equipment.
- **Water supply:** Arrangement should be made for round the clock piped water supply along with an overhead water storage tank with pumping and boosting

arrangements. The emergency area and HDU should have assured 24x7 water supply.

- **Communication:** 24x7 working telephone should be available for the ward, OPD and the emergency department. Internal communication system for connecting important areas of hospitals like emergency, wards, kitchen, laboratory, radiology and pharmacy should be established.
- **Display of IEC:** Standard operating procedures and treatment protocols should be displayed at strategic locations in the hospital. Appropriate IEC material (eg; posters) in local language should be displayed at strategic locations (eg; waiting areas, outside labour room, outdoor consultation rooms, obstetric and paediatric wards) in the health facility.
- **Maintenance of equipment:** AMC should be taken for all equipment which need special care and preventive maintenance done to avoid breakdown. The nurse in charge of the paediatric triage, HDU and ward should be provided with a clear plan of action and contact details of the agency to reduce downtime in case of breakdown. Back up of equipment such as suction machines, nebuliser, pulse oximeters, should be available in the hospital store or with the Paediatric ward, where possible, to ensure smooth functioning.
- **Family centered care:** It must be acknowledged that family will play a significant role in the child's hospital experience, and thus provisions must be made to accommodate their presence. For example, family centred care should encourage parents and sibling interaction with the patient. Since parent/s may spend all the time in the hospital with the sick child, and thus need to eat and sleep near their child, required facilities (such as toilets, drinking water, chairs, pantry etc.) must be provided.
- **Grievance redressal:** Mechanism for grievance redressal must be established in all areas: OPD, emergency and inpatients. Complaint boxes must be prominently located; phone number of officers/ authorities (name, designation, contact details) to be contacted for complaint registration and redressal should be displayed.
- **Hand hygiene:** Hand washing facilities in all OPD clinics, wards, emergency, ICU and OT areas. Compliance to correct method of hand hygiene by health care workers should be ensured.
- **Safe BMW Management:** While safe disposal of Bio-medical waste as per rules is followed in certain areas of the hospital such as the labour room and the OT, these are often neglected in the outpatients and ward areas. Colour bins are used in many hospitals but not in all strategic points. Standard practices for housekeeping and biomedical waste management must be followed as per the national guidelines in all locations including the outpatients, indoor and emergency. IEC materials on bio medical waste management protocol with instruction for service providers should be displayed at appropriate locations.
- **Play and recreation**
Children visiting the outpatients or staying in hospital (inpatients) have a basic

need for play and recreation that should be met routinely in all hospital departments providing a service to children. Play may also be used for therapeutic purposes, as part of the child's care plan, and prepare to cope with procedures and interventions. Play area should be created in the inpatients. The idea is to create an environment where children enjoy themselves and learn while waiting to be treated; healthcare providers are under less pressure because children are not crying to go home; and it's easier for parents to keep their children waiting.

Interior of the room

A conducive and appropriate environment should be created for children to explore different types of play.

Materials for free play shall include the following types of play:

- Sensorimotor play
- Object play
- Physically active play usually fine motor depending upon the illness (it should not consume a lot of energy)
- Social play
- Constructive play
- Language play
- Creative play
- Symbolic play

Equipment inside the room (Nontoxic colours should be used)

- 1) Small stair case with ramp with hand rails at one side of the corner; ball pool can be provided
- 2) Small table and chairs where two to three children can sit and do colouring/creative play/clay/picture reading
- 3) Fine motor work station for the kids who cannot run or have low activity levels
- 4) On one side of the room swing can be provided which is very low and easily accessibility to children
- 5) Tactile wall panel for sensory input and where children of different age groups can play at the same time
- 6) Activity table for the toddlers where they are able to sit on the chair and play.
- 7) Different types of tricycles and cars.
- 8) Foam blocks
- 9) Building blocks
- 10) Puzzles
- 11) Mirror to one side of the wall at a lower level for infants and toddlers.

• **Hospital Kitchen (Dietary Service)**

The importance of food during illness and recovery cannot be overstated. The dietary service of a hospital is thus an important and often therapeutic aspect of overall care. While food is provided in many District Hospitals, it seldom takes into account the dietary requirement of children of various ages. Children are supplied the same food as for adults, which is not always palatable for various

reasons. The nutritional value of food not eaten is nil. Arrangements should be made to ensure that age appropriate diet is made available in consultation with the dietician/ nutrition counsellor and the doctor.

Since children always require the presence of the caregiver, the provision of food for the parent- attendant should be made from the hospital kitchen. This would essentially mean two meals per paediatric bed per shift (breakfast, lunch & dinner).

V) **Record Keeping & Monitoring**

Records of cases presenting to the OPD, emergency and inpatients should be maintained in (1) registers and (2) standard case recording formats. Samples of case recording format for outpatients, paediatric emergency and inpatient are provided in the **annexure 1**.

The services of the Data Entry Operator (DEO) recruited to SNCU and for HMIS can be utilised to collate preliminary data and share on monthly report in **annexure 2** to Additional Director, SFWB, Pune.

Review of Performance

Currently there are various challenges to monitor the performance of the health facilities in context of child health services. These include the absence of standard case recording formats in health facilities, incomplete recording of patient information and clinical data, manual record keeping, difficulty in retrieving records, and non-inclusion of any relevant performance indicator in the HMIS. Some of these issues are being addressed at the systems level.

Key indicators that Civil Surgeons can use to quickly assess the overall performance of the paediatric care unit and guide priority areas for improvement are included in the Dashboard below:

Dashboard Indicators


S. No	Indicator	Numerator	Denominator	Data source
1	Percentage of inpatient beds available for paediatric care in health facility	Total number of beds allocated for paediatric inpatient services in health facility	Total number of functional beds in health facility	Facility records
2.	Percentage of Human Resource available for paediatric care in health facility:			

	Doctors	Total number of doctors (Paediatricians & Medical officers) designated for paediatric care	Total Number of doctors (Paediatricians & Medical officers) recommended in the guideline	Facility records
	Nurses	Total number of nurses available	Total number of Nurses recommended in the guideline	Facility records
3	Percentage of children (0 month to 12 years) attended in paediatric emergency	Total number of children (0 month to 12 years) attended in paediatric emergency	Total number of children (0 month to 12 years) attended in paediatric OPD & ETAT	Emergency and OPD Register
4	Percentage of children with emergency signs received initial treatment in paediatric emergency	Total number of children with emergency signs received initial treatment in paediatric emergency	Total number of children attended in paediatric emergency	ETAT Register/ case records
5	Mortality rate in Paediatric Inpatient	Total number of deaths in children admitted to Paediatric inpatient	Total number of admission in paediatric inpatient	Inpatient Register
Case fatality rates				

6	Pneumonia	Total number of inpatients with diagnosis of pneumonia who died	Total number of inpatients diagnosed with Pneumonia	Inpatient register
7	Diarrhoea	Total number of inpatients with diagnosis of diarrhoea who died	Total number of In-patient admitted with diagnosis of diarrhoea	Inpatient register

Also attached is the soft copy of Strengthening Facility Based Paediatric Care, MOHFW, GOI September 2016.

The above guidelines should be implemented meticulously so that Paediatric Care services will be Strengthened and this will help us in ensuring quality care to children of Maharashtra.


Additional Director of Health Services
(FW, MCH & SH, Pune)

Copy submitted for information to :

- 1) Hon. Director of Health Services, Maharashtra State, Mumbai
- 2) Hon. Commissioner (FW) & MD, NRHM, Arogya Bhavan, Mumbai
- 3) Hon. Principal Secretary, Public Health department, Mantralaya, Mumbai