

Guidance document for processing PM-JAY packages

Severe Sepsis

Procedures covered/ procedure count: 2

Specialty: General Medicine / Pediatric Medicine

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price (INR)
Severe Sepsis	Severe Sepsis	M100055	MG002A	Routine Ward - 1800 HDU – 2700 ICU (without Ventilator) - 3600 ICU (with Ventilator) - 4500
Severe Sepsis	Septic Shock	M100055	MG002B	Routine Ward - 1800 HDU - 2700 ICU (without Ventilator) - 3600 ICU (with Ventilator) - 4500

ALOS: 6 – 9 days

Minimum qualification of the treating doctor:

Essential: MBBS

Desirable: MD / DNB (Medicine) / DM/DNB (Pediatric)

Special empanelment criteria/linkage to empanelment module: None

Disclaimer:

“ICMR has issued clinical guidelines for **Sepsis and Septic Shock in Children** to be followed in country. For monitoring and administering the claim management process of **Sever sepsis and Septic shock** NHA shall be following these guidelines. This document has been prepared for guidance of PROCESSING TEAM and TRANSACTION MANAGEMENT SYSTEM of AB PM-JAY for the claims of procedures mentioned above. The ICMR guidelines are also included in the document for better understanding of the SHA teams, Insurance companies and TPAs. The hospitals can also refer to this document so that they have the insight on how the claims will be processed. However, this document doesn't provide any guidance on clinical and therapeutic management of patient. In that respect the hospitals and physicians may refer to the ICMR poster and other relevant material as per the extant professional norms.”

PART I: Guidelines for Clinicians and Healthcare Providers

1.1 Objective:

The purpose of this section is to act as a guidance & a clinical decision support tool for the clinicians in deciding the line of treatment, plan clinical management of patient and decide

referral of cases to the appropriate level of care (as required) for treatment of patients under PMJAY and selection of corresponding Health Benefit Package.

It will also serve as a tool for hospitals to determine and submit the mandatory documents required for claiming reimbursement of health benefit package under PMJAY.

1.2 Clinical key pointers:

Proceed with management of Sever sepsis only if diagnosis made is backed by clinical signs, symptoms,

A. Sever Sepsis

Clinical signs	Adult	Pediatric
Fever or with or without rashes	Yes	Yes
Diarrhea	Yes	Yes
Poor feeding	NA	Yes
Excessive vomiting	NA	Yes
Lethargy	Yes	NA
Cold / bluish	NA	Yes
Rapid or shallow breathing	Yes	Yes
Decrease responsiveness	Yes	Yes
Stiff neck	Yes	Yes
Stridor	NA	Yes
Convulsion	NA	Yes
Decrease Urine output	Yes	Yes
Abdominal swelling	NA	Yes

B. Septic Shock

Clinical signs	Adult	Pediatric
Fever (>101 degree F)	Yes	Yes
Confusion	Yes	NA
Anxiety	Yes	NA
Difficulty in Breathing	Yes	Yes
Fatigue	Yes	Yes
Malaise	Yes	Yes
Vomiting	NA	Yes
Nausea	Yes	NA
Decrease Urine output	Yes	Yes

1.3 STANDARD TREATMENT WORKFLOW (DHR-ICMR STW)ⁱ- For clinicians/ treating doctor




Department of Health Research
Ministry of Health and Family Welfare, Government of India

Standard Treatment Workflow (STW) for the Management of SEPSIS AND SEPTIC SHOCK IN CHILDREN

ICD-A41.9, R65.21

When to Suspect (2-59 months)?

Sepsis to be suspected: in children with any infections (fever with or without rashes/ pneumonia/ diarrhoea) and they are at risk of life threatening organ dysfunction

Poor Feeding	Lethargy	Decreased responsiveness	Unconsciousness
Cold/ bluish peripheries	Rapid or shallow breathing	Chest in drawing	Stridor
Excessive vomiting	Decreased urine output	Convulsions	Stiff neck

Check for History of

Prior treatment
Previous recurrent infections
Prior hospitalisation
Chronic systemic illness (congenital or acquired)
Immunization (age appropriate)

EXAMINATION

GENERAL PHYSICAL EXAMINATION		VITAL SIGNS		SYSTEMIC EXAMINATION
Lethargy	Petechial rash	Pulse volume (High volume as well as low volume/feeble pulse)	Heart rate and respiratory rate (outside the age range)	Respiratory: Signs of respiratory distress - retraction, nasal flaring, grunting, crepitation on auscultation CVS: Murmur, gallop rhythm Per abdomen: Abdominal distension CNS: *AVPU scale, signs of meningitis, seizures Skin: Rashes Bone & joints: Swelling, redness, tenderness
Decreased alertness	Mucosal bleeding	Capillary refilling time > 3 seconds	Pulse oximetry (saturation <95%)	
Activity	Rapid breathing	Blood pressure* (Systolic blood Pressure < 70 in <1 year)	>1 year child if systolic BP < 70+ Age (yrs x2) or (lower than age range)	
Pallor	Chest in drawing			
Cyanosis	Cold peripheries			
Skin mottling	Assess nutritional status			

SIGNS OF SEVERE DEHYDRATION

Diarrhoea plus any two of these: Lethargy or unconscious, not able to drink or drinks poorly, Sunken eyes, skin pinch goes back very slowly

INVESTIGATIONS- (Based on symptoms and available facility)

Essential - Complete blood counts, peripheral blood film, urine routine, blood sugar, CRP, serum electrolytes, renal function test, liver function test

Desirable - Blood culture, blood gas, relevant cultures (based on symptoms), chest X-ray, specific illness- Malaria - rapid malarial antigen test, Dengue- dengue NS1, IgM, CSF study

Optional- PCT, USG to guide the fluids

MANAGEMENT

DIAGNOSTIC ALGORITHM

CHILD (2-59 MONTHS OF AGE WITH FEBRILE ILLNESS (WITH WARNING SIGNS))

GOOD PERIPHERAL PERFUSION

Admit or initiate treatment as per IMNCI guidelines²

****If there is improvement after 1st bolus and history of diarrhea present then:**

Give 70 ml/kg over 5 hours in infants and over 2 ½ hours in a child with hypovolemic shock. Give additional fluids if losses continue.

Start maintenance fluid in case of other illness

Antibiotics

- >3 months Inj Ceftriaxone 100mg/kg/day (2 divided doses)
- <3 month Inj Cefotaxime 200mg/kg (divided 6-8hrly).
- If soft tissue infection: consider Inj Cloxacillin 200mg/kg divided 6 hourly or Inj Amoxicillin- Clavulanic acid 30 mg/kg/dose 8hrly)

Inj Adrenaline- 0.3x body weight in mg in 50 ml NS or 5% dextrose at 1 ml/hr will give 0.1 microgram/kg/min

POOR PERIPHERAL PERFUSION**

With fast pulse, cold peripheries, poor pulse volume, CRT >3 seconds
(Fast pulse: HR> 180 in < 12 month old child,
HR >120 in >12 month old child)

Admit, initiate treatment, refer to centre with facility of ICU, ventilation, 24 hour monitoring (if required)

Start O₂ with face mask @ 4-6 lit/min, or hood @8-10 lit if not available nasal prongs 1-2 lit/min to maintain SpO₂ >95%. Insert two IV cannulas, give first dose of antibiotics within first one hour

Give 20 ml/kg of normal saline fluid bolus over 20- 30 minutes.

Reassess for decreases in heart rate, improvement in pulse volume and warm peripheries

If no improvement

Repeat bolus of 20 ml/kg over 30 minutes, with careful monitoring for hepatomegaly, oxygen saturation, crepitations in chest (if any of above appears then stop fluids)

If shock persists

Start Inj Adrenaline infusion @0.1 microgram/kg/min and refer to higher centre

#For severe acute malnutrition – consider SAM STW

#For suspected Dengue follow Dengue Fever STW

When to refer

- Shock does not improve after 2nd fluid bolus
- Signs of fluid overload
- No facility for continuous monitoring.
- Before referral counsel the parents and inform referring facility

When to Suspect Cardiac Failure

- History of underlying heart disease
- History of forehead sweating/ suck rest suck cycle
- Murmur
- Haepatomegaly or basilar crept

If it is suspected be careful in giving fluid bolus

Complications

- Respiratory failure** (excessive increase in the respiratory rates and inability to maintain saturation> 94% with oxygen) -non-invasive (CPAP/BIPAP) or invasive ventilation
- Congestive heart failure**- Dobutamine / Milrinone infusion and Furosemide
- Infections on other sites**- explore and treat accordingly

DISCHARGE CRITERIA

Completion of antibiotics as per culture sensitivity

Afebrile for 48 hours

Vitals within normal limit for age

Good oral intake

Adequate urine output >1ml/kg/hr

KEEP A HIGH THRESHOLD FOR INVASIVE PROCEDURES

*DISABILITY (AVPU SCALE)

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 *Anything below A should be classify as danger sign

This STW has been prepared by national experts of India with feasibility considerations for various levels of healthcare system in the country. These broad guidelines are advisory, and are based on expert opinions and available scientific evidence. There may be variations in the management of an individual patient based on his/her specific condition, as decided by the treating physician. There will be no indemnity for direct or indirect consequences. Kindly visit our web portal (stw.lcmr.org.in) for more information.

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1.4 Mandatory documents- For healthcare providers

Following documents should be uploaded by the concerned hospital staff at the time of pre-authorization and claims submission:

Mandatory document	Severe Sepsis	Septic Shock
i. At the time of Pre-authorization		
Clinical notes	Yes	Yes
Complete Blood count Urine Routine	Yes	Yes
Planned line of management	Yes	Yes
ii. At the time of claim submission		
Indoor case papers	Yes	Yes
Culture reports- Blood & Urine	Yes	Yes
Biochemistry- Renal Function Test & Liver Function Test reports	Yes	Yes
Discharge summary	Yes	Yes

PART II: GUIDELINES FOR PROCESSING TEAM

PART III: GUIDELINES FOR TRANSACTION MANAGEMENT SYSTEM (TMS)

3.1 Objective: To enable setting up of cross check mechanisms/rule engines within the IT platform (TMS) to ensure compliance with STGs and to prevent fraud / abuse of the Health Benefit Package.

3.2 Below mentioned are the scenarios where a provision would be built in TMS for pop-ups:

Sever Sepsis

- Patient has fever > 38.3 Degrees Celsius? Yes

Till the time the functionality is being developed, the processing doctors shall check the above manually.

^[1] Standard Treatment Workflows of India. 2019 Edition, vol. 1, New Delhi, Indian council of Medical Research, Department of Health Research, Ministry of Health and Family Welfare, Government of India. These STWs have been prepared by national experts of India with feasibility considerations for various levels of healthcare system in the country. These broad guidelines are advisory and are based on expert opinions and available scientific evidence. There may be variations in the management of an individual patient based on his/her specific condition, as decided by the treating physician. There will be no indemnity for direct or indirect consequences. Kindly visit the web portal (stw.icmr.org.in) for more information. © Indian Council of Medical Research and Department of Health Research, Ministry of Health & Family Welfare, Government of India.

