



## Guidance document for processing PM-JAY packages

### Empyema

**Procedures covered: 1**

**Specialty: General Medicine, Pediatric Medical Management**

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price
Empyema	Empyema	M100033, M200043	MG018A	General Ward- 1,800 HDU – 2,700 ICU without ventilator– 3,600 ICU with Ventilator– 4,500

**ALOS: 3-5 Days**

**Minimum qualification of the treating doctor:**

**Essential:** DNB / MD/MS (General Medicine / Pediatric Medicine/General surgery/Thoracic surgery)

**Special empanelment criteria/linkage to empanelment module: None**

#### **Disclaimer:**

For monitoring and administering the claim management process of **Empyema**, 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 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 any 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:**



Thoracic empyema, an infectious process defined by frank pus in the pleural space, has been recognized since the time of Hippocrates and historically carries a considerably high mortality. Empyema is a complex entity with multifactorial pathogenesis and etiology, and clinicians should be mindful in recognizing different stages of the disease. Rapid diagnosis is essential to successful treatment and patient's survival. Treatment aims at combining medical and surgical interventions that target the source of infection and ensure adequate lung re-expansion.

### **Clinical Features**

Clinical presentation can be multifactorial and varies based on underlying comorbidities, the timing of clinical presentation, and the causative microorganism. Patients with empyema generally present late in the clinical course with untreated pneumonia or mismanaged complicated pleural effusions. Common clinical features of empyema are nonspecific and similar to that of bacterial pneumonia. Symptoms include cough, dyspnea, fever, and/or pleuritic chest pain.

On physical exam, dullness to percussion and decreased breath sounds can be appreciated but are not particularly diagnostic of empyema. Therefore, imaging may be necessary in any patient with suspected parapneumonic effusion.

### **Diagnosis**

Chest imaging is a fundamental step in the diagnosis and management of empyema. Despite advances in imaging modalities, plain radiographs still serve as a great screening tool for pleural effusions in patients with pneumonia. Typically, a unilateral, markedly asymmetric pleural effusion with blunting of the costophrenic angle can be appreciated. Smaller volume effusions are detectable with a lateral view X-ray.

### **Management**

#### **Antimicrobials**

For most patients with suspected or confirmed empyema, empiric broad-spectrum antibiotics are necessary. Initiation should not delay pending diagnostic procedures. Antimicrobials should be tailored to target pathogens based on geographic epidemiology, antibiotic resistance patterns, mode of acquisition (aspiration, trauma), and whether the affected patient presents from a community versus a healthcare setting.

#### **Tube Thoracostomy**

Chest tube placement, under radiologic guidance, is the least invasive and most common non-surgical modality for empyema.

#### **VATS**

Surgical consultation should be a consideration when drainage via tube thoracostomy fails or in multi-loculated empyema. Video-assisted thoracoscopic surgery (VATS) is a minimally invasive

surgical technique that allows for direct visualization and evacuation of the infected pleural space.

### Open Thoracostomy & Decortication

Persistent empyema refractory to standard therapies, including VATS, should be considered for open window thoracostomy (OWT) with prolonged chest tube drainage or decortication.

### 1.3 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	Empyema
<b>i. At the time of Pre-authorization</b>	
a. Clinical Notes including evaluation findings, indications for the procedure, and planned line of treatment	Yes
b. Hemogram report	Yes
c. Chest X ray/Ultrasound chest/ CECT chest report	Yes
<b>ii. At the time of claim submission</b>	
a. Detailed Indoor clinical papers with treatment details	Yes
b. Post treatment Chest X ray report/Drainage under Ultrasound guidance/Intercostal tube drainage details (If applicable)	Yes
c. Detailed Discharge Summary	Yes

## **PART II: GUIDELINES FOR PROCESSING TEAM**

**2.1 Objective:** To provide guidance to the pre-authorization and claims processing team in ascertaining the medical necessity of procedure carried out vis a vis the patient's medical condition as evidenced by supporting documents/investigation reports etc, in deciding the admissibility and quantum of claim and compliance with mandatory documents by the hospital.

**2.2 Following mandatory documents to be diligently reviewed by the pre-auth / claims processing personnel:**

Mandatory documents	Empyema
<b>i. At the time of pre-authorization processing- For pre-authorization processing doctor (PPD)</b>	
a. Was the Clinical Notes including evaluation findings, indications for the procedure, and planned line of treatment submitted?	Yes
b. Was the complete hemogram report submitted?	Yes
c. Was the Chest X ray/Ultrasound chest/ CECT chest report submitted?	Yes

<b>ii. At the time of claim processing- For claims processing doctor (CPD)</b>	
a. Was Detailed Indoor case papers with vital (BP and Pulse) and Treatment details submitted?	Yes
b. Was the post treatment Chest X ray report/Drainage under Ultrasound guidance/Intercostal tube drainage details (If applicable) submitted?	Yes
c. Was the Detailed Discharge Summary submitted with the date of the follow-up mentioned?	Yes

### **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:**

1. Was the clinical notes and chest X ray/Ultrasound chest/CECT, CT Chest indicative of procedure? Yes

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

#### **References:**

1. Iguina MM, Danckers M. Thoracic Empyema. [Updated 2019 Nov 23]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-.
2. Ahmed AE, Yacoub TE. Empyema thoracis. Clin Med Insights Circ Respir Pulm Med. 2010 Jun 17
3. Reichert M, Hecker M, Witte B, Bodner J, Padberg W, Weigand MA, Hecker A. Stage-directed therapy of pleural empyema. Langenbecks Arch Surg. 2017 Feb;402(1):15-26.