# Guidance document for processing PM-JAY packages

## Acute Transverse Myelitis

**Procedures covered:** 1

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

| Package name | Procedure name | HBP 1.0 code | HBP 2.0 code | Package price (INR) |
|---|---|---|---|---|
| Acute Transverse Myelitis | Acute transverse myelitis | M100060, M200081, M200089 | MG035A | General Ward- 1800/-<br>HDU – 2700/-<br>ICU without ventilator– 3600/-<br>ICU with Ventilator– 4500/- |

**ALOS: 5-7 Days**
**Minimum qualification of the treating doctor:**
**Desirable:** DNB / MD or equivalent in(General Medicine / Pediatric Medicine). DM/DNB in Neurology
**Special empanelment criteria/linkage to empanelment module: None**

**Disclaimer:**

For monitoring and administering the claim management process of **Acute Transverse Myelitis** for 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:**

Transverse myelitis (TM) is an inflammatory condition across the spinal cord, along one or more levels and in the absence of compression. Idiopathic acute TM is rare and with improvements in diagnostic tools and longer follow-up, the etiology which may include post-infectious, multiple sclerosis, or neuromyelitis optica often becomes clearer. The patient may present acutely with weakness, sensory impairments, or bowel and bladder changes. A careful history, physical examination, and appropriate diagnostic studies including blood tests and an MRI scan may help determine the diagnosis and etiology. Following the acute management, which may include use of steroids, immunosuppressive drugs, and plasma exchange, a comprehensive medical rehabilitation program is important to optimize recovery from the resultant impairments and disabilities and manage associated complications. Complications such as paralysis, autonomic dysfunction, neuropathic and musculoskeletal pain, spasticity, contractures, neurogenic bladder and bowels, skin breakdown, and psychological issues will benefit from the expertise of the physiatrist.

**Symptoms**

Patients with TM may present in the ambulatory clinic, urgent care center, or hospital setting with complaints of weakness of the limbs, sensory impairments, pain, and difficulties with the bowel and bladder. Weakness may affect only the lower limbs or all four limbs with varying severity. It may be complete, incomplete, or may present as one of the spinal cord syndromes. The clinical spinal level usually corresponds to the lesion, but lower limb findings do not preclude a lesion at the cervical level. Sensory complaints may include hypersensitivity, numbness, tingling, coldness, burning, or as a circumferential constriction. Pain is a common symptom in one third to one half of patients and may be central or localized, aching or radicular in character. Bowel frequency or constipation may occur, and bladder symptoms include increased frequency, retention, and incontinence.

**Signs**

The physical examination should be broadly systemic as well as focused on neurological findings such as motor weakness, changes in sensation (pinprick, light touch, vibration, position sense, or temperature), tone, muscle stretch reflexes, coordination, and bowel and bladder functioning. Changes affecting the brain, such as cognitive dysfunction and cranial nerve and visual abnormalities, are generally not seen with idiopathic TM.

Fever, tachycardia, and tachypnea may indicate an infectious etiology. Infections, autoimmune, and other conditions that cause acute inflammation of the spinal cord may also manifest in the other body systems. Respiratory, cardiovascular, gastrointestinal, and genitourinary tracts as well as the musculoskeletal and integumentary systems should be assessed accordingly. The findings will assist in determining the level of spinal involvement, guide diagnostic testing, and help rule out other diagnoses.

**Management**

Several anti-inflammatory drugs have been tried for TM without clear success. Although there is insufficient evidence for corticosteroid efficacy, intravenous methylprednisolone is often used to prevent further damage to the spinal cord as a result of swelling. During the acute phase, it may lead to faster recovery and less disability, and is well tolerated. Cyclophosphamide exerts an immunosuppressive and immunomodulatory effect through suppression of cell-mediated and humoral immunity (on the T cells and B cells). Cyclophosphamide together with methylprednisolone may help in lupus-related TM. However, there appears to be an absence of any beneficial effect of immunosuppressive drugs (cyclophosphamide, azathioprine, intravenous immune globulin) in patients with idiopathic acute TM. Plasma exchange to remove autoreactive antibodies and other toxic molecules from plasma may be effective with a good clinical response, especially within 20 days of onset and when nonresponsive to high-dose corticosteroids. The monoclonal antibody rituximab can be effective in decreasing relapses in TM due to NMO.

**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 | Acute Transverse Myelitis |
|---|---|
| **i. At the time of Pre-authorization** | |
| a. Clinical Notes including evaluation findings, indications for the procedure, and planned line of treatment | Yes |
| b. Relevant Investigations<br>a. Hemogram<br>b. Biochemistry | Yes |
| c. MRI/CT Spinal cord | Yes |
| **ii. At the time of claim submission** | |
| a. Detailed Indoor case papers with treatment given | Yes |
| d. Detailed Discharge Summary | 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**:

1. Were the patient history and examination notes suggestive of episode of lesion of spinal cord/ myelopathy? Yes

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

**References**


1. Lim PAC. Transverse Myelitis. *Essentials of Physical Medicine and Rehabilitation*. 2020;952-959.
2. Beh S.C., Greenberg B.M., Frohman T., Frohman E.M. Neurol Clin. 2013;31(1):79–138.
3. National Institute of Neurological Disorders and Stroke. Transverse myelitis fact sheet.
4. Scott T.F., Frohman E.M., de Seze J. Evidence-based guideline: clinical evaluation and treatment of transverse myelitis: report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. Neurology. 2011;77:2128–2134.
5. Manabe Y., Sasaki C., Warita H. Sjögren's syndrome with acute transverse myelopathy as the initial manifestation. J Neurol Sci. 2000;176:158–161.
6. 21. Kovacs B., Lafferty T.L., Brent L.H. Transverse myelopathy in systemic lupus erythematosus: an analysis of 14 cases and review of the literature. Ann Rheum Dis. 2000;59:120–124