



Guidance document for PM JAY package

Bronchial artery Embolisation (for Haemoptysis)

Procedures covered/ procedure count:1

Specialty: Cardiology

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price
Bronchial artery Embolisation (for Haemoptysis)	Bronchial artery Embolisation (for Haemoptysis)	S1200035	MC018A	32,800

ALOS: 3 days

Minimum qualification of the treating doctor:

Essential: MD/ DM/DNB/ equivalent (Cardiology)

Special empanelment criteria/linkage to empanelment module: Functional Cardiac Cath Lab

Disclaimer:

For monitoring and administering the claim management process of **Bronchial artery Embolisation**, 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:

Despite continued technological progress, including advances in medical imaging, hemoptysis remains an important clinical and potentially grave condition. Given its diverse inflammatory, neoplastic, and vascular etiologies, precise anatomic localization of hemorrhage poses a challenge for all clinicians engaged in its evaluation and management. Bronchial artery angiography with embolization has become a mainstay in the treatment of

hemoptysis. Mild hemoptysis referred to hemoptysis of less than 100 mL/day or less than 50 mL/ episode. Moderate hemoptysis referred to hemoptysis of 100–300 mL/day or more than three bouts of hemoptysis of more than 100 mL/day in one week. Severe/massive/life-threatening hemoptysis referred to: a) hemoptysis more than 300 mL/day, b) hemoptysis of any volume leading to drop in hemoglobin (drop > 1g/dL) or hematocrit (drop > 5%) or respiratory failure (SPaO₂ , <60%), or hypotension (systolic BP<90 mm Hg).

Etiologies of Hemoptysis

Worldwide, the most common cause of hemoptysis remains active tuberculosis. Countries such as the United States, hemoptysis most often occurs in the setting of chronic inflammatory processes including infectious (tuberculosis, aspergillosis) and noninfectious (cystic fibrosis, bronchiectasis) etiologies. The leading causes of noninflammatory hemoptysis in the United States are bronchogenic carcinoma and congenital heart disease. A rare situation arises where the offending agent or process cannot be well elucidated. These are termed cryptogenic, and are most commonly encountered in the smoking population, accounting for up to 42% of hemoptysis complaints.

DIAGNOSTIC EVALUATION AND CLINICAL MANAGEMENT OF HEMOPTYSIS

- Thorough history and physical examination.
- Signs or symptoms of infection, vasculitis, granulomatous disease, or airway disease.
- chest radiography remains a basic and useful diagnostic tool in the evaluation of hemoptysis in 70% of patients.
- Bronchoscopy is an excellent diagnostic approach to localize and potentially treat the source of hemoptysis (rigid/flexible).
- CTA: better in detecting the cause and lays down vascular roadmap for therapeutic interventions.

Treatment

- Historically, surgery had been the definitive therapy. Unfortunately, surgical intervention carries a mortality of ~18% when performed electively, rising to 40% when performed emergently.
- Conversely, a more conservative approach to therapy including observation and management with medication has been shown to carry a mortality risk of at least 50%.
- Bronchial artery embolization offers a minimally invasive procedure, which can potentially be offered as first-line treatment as well as providing a bridge to more definitive medical or non emergent surgical intervention . Common indications for BAE included tuberculosis, post-tubercular sequelae, bronchiectasis, and aspergillomas. Overall immediate clinical success rate of BAE, defined as complete cessation of hemoptysis, varied from 70%–99%. However, recurrence rate remains

high, ranging from 10%– 57%, due to incomplete initial embolization, recanalization of previously embolized arteries, and recruitment of new collaterals. Rate of major complications remain negligible and stable over time. Despite high hemoptysis recurrence rates, BAE continues to be the first-line, minimally invasive treatment of hemoptysis in emergency settings, surgically unfit patients, or in patients with diffuse or bilateral lung disease.

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	Bronchial artery Embolisation (for Haemoptysis)
i. At the time of Pre-authorization	
a. Clinical notes with planned line of treatment	Yes
b. Chest X ray	Yes
c. HRCT Chest/ CTPA	Yes
ii. At the time of claim submission	
a. Procedure / Operative notes	Yes
b. Check angiography of same bronchial artery after procedure	Yes
c. Detailed Discharge Summary	Yes

PART II: GUIDELINES FOR PROCESSING TEAM

2.1 Objective: To provide guidance to the pre-authorisation 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 document	Bronchial artery Embolisation (for Haemoptysis)
i.Pre-auth processing Doctor (PPD)	
a. <i>Clinical notes</i> - detailed history, signs &	Yes

symptoms, indication for procedure	
b. Was the chest X ray of patient submitted?	Yes
c. Does the HRCT chest/ CTPA of patient suggestive of bronchial artery hemorrhage?	Yes
ii.Claims processing Doctor (CPD)	
a. Are the detailed Procedure / Operative notes submitted?	Yes
b. Does the post procedure angiogram of affected bronchial artery show thrombosis of the artery?	Yes
c. Is there a Detailed Discharge Summary mentioning submitted?	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 patient suffering from hemoptysis as per the clinical notes? Yes

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

References

1. Sopko DR, Smith TP. Bronchial artery embolization for hemoptysis. SeminInterventRadiol. 2011;28(1):48-62
2. Haponik E F, Fein A, Chin R. Managing life-threatening hemoptysis: has anything really changed? Chest. 2000;118(5):1431–1435.
3. Shigemura N, Wan I Y, Yu S C, et al. Multidisciplinary management of life-threatening massive hemoptysis: a 10-year experience. Ann Thorac Surg. 2009;87(3):849–853.
4. Wyngaarden J B, Smith L H, Bennett J C. Cecil Textbook of Medicine. 19th ed. Philadelphia: WB Saunders; 1992. p. 370.
5. Crocco J A, Rooney J J, Fankushen D S, DiBenedetto R J, Lyons H A. Massive hemoptysis. Arch Intern Med. 1968;121(6):495–498.