



Guidance document for processing PM-JAY package

Acute Exacerbation of Chronic Obstructive Pulmonary Disease (COPD)

Procedure covered/ procedure count: 1

Specialty: General Medicine

Procedure name	HBP 1.0 code	HBP 2.0 code	Procedure price
Acute exacerbation of COPD	M100012	MG029A	1,800/day (General ward) 2,700/ day (HDU) 3,600/ day (ICU without ventilator) 4,500/ day (ICU with ventilator)

ALOS: 4 -7 days (2-3 days ICU)

Minimum qualification of the treating doctor:

Essential: MBBS; **Desirable:** MD/ DNB/ equivalent (Medicine)/ Pulmonology/ Diploma in Tuberculosis and Chest Disease (DTCD)

Special empanelment criteria /link to empanelment module- None

Disclaimer:

ICMR has issued clinical guidelines for **Chronic Obstructive Pulmonary Disease** to be followed in country. For monitoring and administering the claim management process of **Acute exacerbation of COPD**, 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.

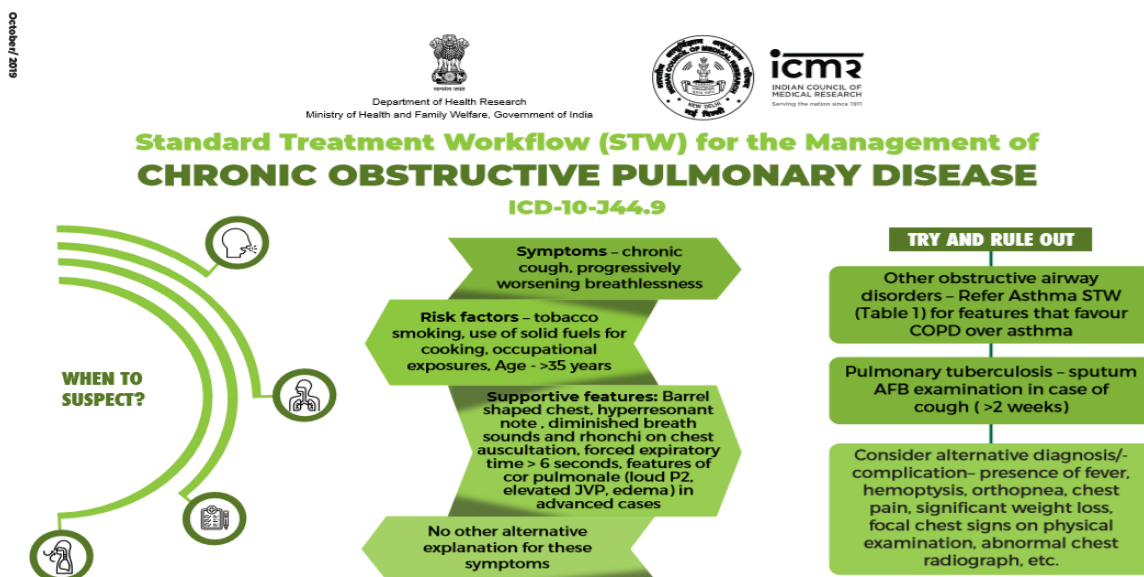
1.2 Clinical key pointers:

- a. Proceed for admission for management of acute exacerbation of COPD only if indicated

Suggestive Admission criteria:

1. Severe symptoms, sudden worsening of resting dyspnoea
 2. Fall in oxygen saturation, cyanosis, confusion, drowsiness
 3. Failure of an exacerbation to respond to initial medical management
 4. Presence of serious co-morbidities (heart failure, newly occurring arrhythmias, etc.)
- b. The diagnosis made should be backed by clinical signs, symptoms, physical examination, investigations.
- c. Watch out for **three cardinal symptoms of COPD exacerbation**- increase in dyspnea, increase in sputum volume &/ or increase in sputum purulence.
- d. Look out for **Red flag signs for exacerbation** (refer para 1.3 below). If applicable, refer to higher centre for further management. Ensure continued supplemental oxygen and nebulization during transfer. Follow-up 1 week after discharge.
- e. **Refer** if inadequate response to treatment, onset of new complications, or suspicion of alternative diagnosis
- f. **Suggestive Discharge criteria:**
1. Normalization of clinical and laboratory data to pre-admission levels
 2. Patient able to follow maintenance therapy
 3. Completion of acute medications
 4. Adequate control of co-morbidities
- g. Try and rule out other obstructive airway diseases, pulmonary tuberculosis, alternative diagnosis/ complication

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



DIAGNOSIS & SEVERITY ASSESSMENT

Airway obstruction should be documented on spirometry on all patients provisionally diagnosed as having COPD – refer if necessary. Post-bronchodilator FEV1/FVC <0.70 defines airflow obstruction

Assess severity based on spirometry, severity of dyspnea (mMRC scale, Table 1), exacerbation frequency and presence of complications (see Table 2)

TREATMENT

- Advise smoking cessation and counsel for other risk factors
- Inhaled drugs are the mainstay
- Treatment based on severity assessment (See adjacent figure)
- Follow up: Mild to moderate disease - 3 to 6 Months; Severe disease - 1-3 months
- Ensure compliance and proper inhaler technique at each visit.
- If uncontrolled/complications develop, refer to higher center

DISEASE EXACERBATION

Three cardinal symptoms:

- Increase in dyspnea
- Increase in sputum volume and/or
- Increase in sputum purulence

Classify As:

- Mild Exacerbation
- Severe Exacerbation

Features Of Severe Exacerbation:

- Cyanosis
- Respiratory rate >30/min
- Heart rate >110/min
- Systolic blood pressure <90 mm Hg
- SpO₂ <90%
- Paradoxical respiratory movements
- Altered sensorium
- Asterixis
- Presence of severe co-morbid conditions (e.g. heart failure, arrhythmia)

MILD EXACERBATION

- Increase dose and/or frequency of levosalbutamol and/or ipratropium inhalation, or nebulized levosalbutamol/ipratropium (1.25 mg/0.5 mg), repeated as needed at 20-minute interval
- Amoxicillin 500 mg TDS/ Azithromycin 500 mg OD/ Doxycycline 100 mg OD (BD on day 1) X 5 Days
- Oral prednisolone 30 mg daily X 5 days

SEVERE EXACERBATION

Treatment as under Mild Exacerbation

Supplement oxygen with target spO₂ of 92% (if spO₂ monitoring available)

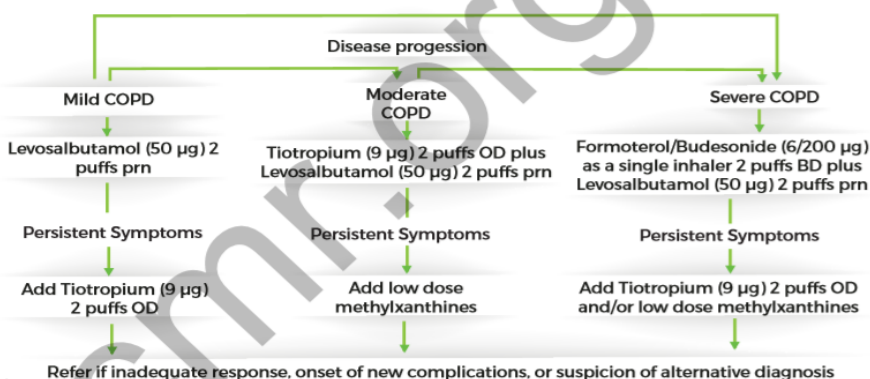


TABLE 1. GRADING OF BREATHLESSNESS USING MODIFIED MEDICAL RESEARCH COUNCIL (MMRC) SCALE.

GRADE	DESCRIPTION OF BREATHLESSNESS
0	I only get breathless with strenuous exercise.
1	I get short of breath when hurrying on level ground or walking up a slight hill.
2	On level ground, I walk slower than people of the same age because of breathlessness or have to stop for breath when walking at my own pace.
3	I stop for breath after walking about 100 yards or after a few minutes on level ground.
4	I am too breathless to leave the house or I am breathless when dressing.

TABLE 2. SEVERITY CLASSIFICATION FOR COPD

SEVERITY	POSTBRONCHODILATOR FEV1 (% PREDICTED)	DYSPNEA (MMRC GRADE)	EXACERBATIONS IN LAST ONE YEAR	COMPLICATIONS*
MILD	≥ 80	<2	<2	NO
MODERATE	50-79	≥ 2	<2	NO
SEVERE	<50	≥ 2	≥ 2	YES

The category with the worst value should be used for severity classification

*Complications include respiratory failure, cor pulmonale, and secondary polycythemia

RED FLAG SIGNS FOR PEOPLE HAVING EXACERBATION

- Altered sensorium
- spO₂ <88% despite therapy
- Heart rate >110 bpm
- Systolic blood pressure <90 mm Hg
- High risk comorbid conditions (arrhythmia, congestive cardiac failure, poorly controlled diabetes, renal or liver failure)

Refer to higher centre for further management, and ensure continued supplemental oxygen and nebulization during transfer

SCHEDULE FOLLOW UP VISIT ONE WEEK AFTER DISCHARGE

ADMISSION CRITERIA

1. Severe symptoms; sudden worsening of resting dyspnea.
2. Fall in oxygen saturation, cyanosis, confusion, drowsiness.
3. Failure of an exacerbation to respond to initial medical management.
4. Presence of serious comorbidities (heart failure, newly occurring arrhythmias, etc.)

DISCHARGE CRITERIA

1. Normalization of clinical and laboratory data to pre-admission levels
2. Patient able to follow maintenance therapy
3. Completion of acute medications
4. Adequate control of comorbidities

KEEP A HIGH THRESHOLD FOR INVASIVE PROCEDURES

REFERENCES

1. Gupta D, et al. Guidelines for diagnosis and management of chronic obstructive pulmonary disease: Joint ICS/NCCP(I) recommendations. Lung India 2013;30:228-67
2. Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2019 report.
3. National Institute for Health and Care Excellence (NICE). Chronic obstructive pulmonary disease in over 16s: diagnosis and management. 2018.

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-authorisation and claims submission:

- i. **At the time of pre-authorization-** Clinical notes, Investigation reports- Spirometry/ PFT (If available), Chest X-ray, Patient photograph
- ii. **At the time of claims submission:**
Detailed Indoor case papers having treatment and management including SpO2 monitoring, detailed discharge summary, all investigations reports including **serial ABG if patient admitted in ICU/HDU**

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**

2.2.1 **At the time of pre-authorization processing- For pre-authorisation processing doctor (PPD):**

- a. **Clinical notes** - detailing past history of COPD, risk factors (if any), signs and symptoms, **admission criteria such as:**
 - i. Severe symptoms, sudden worsening of resting dyspnoea
 - ii. Fall in oxygen saturation, cyanosis, confusion, drowsiness
 - iii. Failure of an exacerbation to respond to initial medical management
 - iv. Presence of serious co-morbidities (heart failure, newly occurring arrhythmias, etc.)
- b. **Vitals** of acute exacerbation (mild/ severe)
 - i. Respiratory rate > 20/ min
 - ii. Heart rate > 90 bpm
 - iii. Systolic BP < 90 mm Hg
- c. **Spirometry/ PFT reports**, if available, indicating airway obstruction
- d. **Chest X-ray**
- e. Planned line of management
- f. Photograph of the patient on bed (Routine ward/ HDU/ ICU).

2.2.2 **At the time of claim processing- For claims processing doctor (CPD)**

- a. Do the documents (clinical notes and physical examination reports) available detail the need for admission (admission criteria)?
- b. Was there documentary evidence of record & monitoring of vitals- SpO2; Heart rate; chest examination; abnormal breath sounds; features of Cor pulmonale (loud P2, elevated JVP, edema) in advanced cases; chest x-ray?

- c. Is medication/ treatment chart available? Was the patient given Steroids, Inhalers/ nebulization, antibiotics as required & supplemental oxygen (if indicated)- mild exacerbation or Steroids, Inhalers/ nebulization, antibiotics as required & supplemental oxygen- severe exacerbation?
- d. Do the discharge documents show the discharge (ref. part 1 above) / referral criteria (red flag signs of exacerbation); counselling on control of risk factors; post discharge treatment advice including follow-up after discharge (preferably 1 week after discharge)?
- e. If the patient is in HDU/ ICU +/- BIPAP/ ventilator following additional questions may be referred:
 - i. Do the documents show a need for admission to HDU/ ICU (+/- BIPAP/ ventilator)
 - ii. Is there a documentary evidence to show monitoring in HDU/ ICU/ BIPAP/ ventilator

PART III: GUIDELINES FOR IT

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 in case of Exacerbation of COPD:

- i. History of COPD - Yes
- ii. Respiratory rate > 20/ min- Yes
- iii. Heart rate > 90 bpm- Yes
- iv. Systolic BP < 90 mm Hg- Yes
- v. Is PFT available- Yes, then, FEV 1 < 80%

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

Acknowledgment:

ⁱ 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.