



Guidance document for processing PM-JAY packages

Diverticulectomy

Procedures covered: 2

Specialty: General Surgery

Meckel's Diverticulum – General/Pediatric Surgery

| Package name | Procedure | HBP 1.0 code | HBP 2.0 code | Package price (INR) |
|------------------|--------------------------------|--------------|--------------|---------------------|
| Diverticulectomy | Excision Duodenal Diverticulum | S100028 | SG016A | 20,000 |
| Diverticulectomy | Excision Meckel's Diverticulum | S100041 | SG016B | 15,000 |

ALOS: 5-7 Days

Minimum qualification of the treating doctor:

Essential: MS/Equivalent (in General Surgery), MCh/Equivalent (Pediatric surgery, Surgical Gastroenterologist)

Special empanelment criteria/linkage to empanelment module: None

Disclaimer:

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

DUODENAL DIVERTICULUM

Duodenal diverticula are the most common type of small bowel diverticula. It is a pouch attached to the duodenum. There are 2 types of duodenal diverticulum – Intramural and Extramural.

- Extramural diverticulum is the more common type that sticks out from duodenum and varies in size. They are acquired as this is secondary to herniation near the entrance of a large vessel. They usually are located in the area around the Papilla of Vater
- Intramural diverticulum (windsock diverticula) is of rare type that protrudes into the duodenal lumen. This is congenital, secondary to incomplete canalization

Presenting symptoms

Duodenal diverticulum, in the majority of cases, is asymptomatic. Other presenting symptoms are:

- Upper Abdominal pain
- Right upper quadrant tenderness
- Often accompanied by early satiety or discomfort and may have nausea or vomiting
- Postprandial epigastric abdominal cramping pain and vomiting due to partial or intermittent duodenal obstruction
- In case of common bile duct oppression, patient presents with intermittent jaundice

Investigations

- Barium X rays
- Endoscopy
- Ultrasonography
- CT/MRI scans

Management

Asymptomatic duodenal diverticulum incidentally detected during imaging does not require any surgical intervention. Simple diverticulectomy is most commonly used for a symptomatic diverticulum or a bleeding diverticulum of the duodenum.

- Curative treatment consists of removal of the diverticulum by surgery or endoscopically

MECKEL'S DIVERTICULUM

Meckel diverticulum is the most common congenital anomaly of the small intestine which occurs due to persistent intestinal end of vitellointestinal duct. Being congenital, it has all the layers of the bowel. Hence, a true diverticulum.

Rule of 2 for Meckel's diverticulum

- Incidence: 2%
- Location: 2 feet proximal to ileocecal junction
- Length: 2 inches long
- Ectopic tissue: 2 types—gastric and pancreatic
- Presentation: 2 years or below 2 years is the most common age
- Male: female ratio—1:2

K Rajgopal Shenoy, Anitha Shenoy (Nileshwar). Manipal Manual of Surgery. Fourth Edition.

Clinical Manifestation

- Meckel's diverticulum is usually clinically silent but can be found incidentally
- Patients can present with colicky abdominal pain, vomiting, and diarrhea from a broad range of complications that include obstruction, intussusception, diverticulitis, and perforation.
- Patients can also present with gastrointestinal bleeding, although this is more common in children. Bleeding can present as bright red rectal bleeding or painless, slow, intermittent melena.
- In adults, the most common type of complication is intestinal obstruction, accounting for approximately one third of complications
- May be an incidental finding during laparotomy, or a differential diagnosis of acute appendicitis

| Adult Complications From a Meckel Diverticulum | |
|--|---------------|
| Type of Complication | Incidence (%) |
| Intestinal obstruction | 37 |
| Intussusception | 14 |
| Diverticulitis | 13 |
| Hemorrhage | 12 |
| Perforation | 7 |
| Component of hernia sac | 5 |
| Volvulus | 3 |
| Neoplasm | 3 |

From Yamaguchi M, Takeuchi S, Awazu S. Meckel's diverticulum investigation of 600 patients in the Japanese literature. *Am J Surg.* 1978;136:247–249.

| Pediatric Complications From a Meckel Diverticulum in Children Younger Than 18 Years of Age | |
|---|---------------|
| Type of Complication | Incidence (%) |
| Intestinal obstruction | 30.0 |
| Hemorrhage | 27.0 |
| Intussusception | 19.0 |
| Omphalitis | 0.4 |

From Ruscher KA, Fisher JN, Hughes CD, et al. National trends in the surgical management of Meckel's diverticulum. *J Pediatr Surg.* 2011;46:893–896.

Shackelford's Surgery of the Alimentary Tract, 2 Volume Set (Eighth Edition), 2019

Evaluation

There is no gold standard diagnostic evaluation for Meckel's diverticulum. ^{99m}Tc -labelled pertechnetate given IV, may localise the heterotopic gastric mucosa in the Meckel's diverticulum in about 90% of patients.

Management

Patients with suspected Meckel's diverticulum are initially managed according to their clinical presentation.

Resection of symptomatic Meckel's diverticulum - Meckel's diverticulum can be resected by simple diverticulectomy (excision of the diverticulum at its base) or by segmental small bowel resection and primary anastomosis, depending on the size.

Indications to Resect an Incidentally Found Meckel Diverticulum

Patient <40 years of age
Meckel diverticulum longer than 2 cm
Presence of a fibrous band
Evidence of heterotopic mucosa

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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 | Diverticulectomy |
|---|------------------|
| i. At the time of Pre-authorization | |
| Clinical notes including evaluation findings, indication of procedure and planned line of management | Yes |
| Barium X-ray / Upper GI Endoscopy / USG/CECT/MRI Abdomen / Meckel scan (^{99m}Tc pertechnetate Scintigraphy – gastrointestinal bleeding) / Double balloon Enteroscopy | Yes |
| ii. At the time of claim submission | |
| Detailed Indoor case papers (ICPs) with treatment details | Yes |
| Detailed Procedure / operative notes | Yes |
| Intra-operative photographs (optional) | Yes |
| Histopathological examination report | Yes |

| | |
|----------------------------|-----|
| Detailed discharge summary | Yes |
|----------------------------|-----|

PART II: GUIDELINES FOR PROCESSING TEAM

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:

- I. Was clinical presentation and imaging indicative of surgery? Yes

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

References

1. Ellionore Järbrink-Sehgal. Small bowel diverticula: Clinical manifestations, diagnosis, and management – UpToDate. Last updated: March, 2020
2. K Vagholkar, S Tople. Duodenal Diverticulum. The Internet Journal of Surgery. 2012 Volume 28 Number 4
3. Patrick J Javid. Meckel's diverticulum – UpToDate. last updated: April, 2020
4. Shackelford's Surgery of the Alimentary Tract, 2 Volume Set (Eighth Edition), 2019
5. K Rajgopal Shenoy, Anitha Shenoy (Nileshwar). Manipal Manual of Surgery. Fourth Edition.