

## Guidance document for processing PM-JAY packages

### Nephroureterectomy (Benign)/ with cuff of bladder

Procedures covered: 4

Specialty: Urology, Pediatric Surgery

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price (INR)	ALOS (in days)
Nephro ureterectomy with cuff of bladder	Open	S700014	SU011A	27,500	4
Nephro ureterectomy with cuff of bladder	Lap.	S700015	SU011B	27,500	3
Nephro ureterectomy (Benign)	Open	S700012	SU010A	27,500	4
Nephro ureterectomy (Benign)	Lap.	S700013	SU010B	27,500	3

#### Minimum qualification of the treating doctor:

**Essential:** MCh/DNB or Equivalent (in Urology, Pediatric Surgery)

**Special empanelment criteria/linkage to empanelment module:** Laparoscopic facilities to be available

#### Disclaimer:

For monitoring and administering the claim management process of **Nephroureterectomy (Benign)/ with cuff of bladder**, 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:** **Nephroureterectomy with cuff of bladder** is the removal of the kidney, ureter, and bladder cuff and lymph nodes. For patients with high-risk upper tract urothelial carcinoma (UTUC), renal pelvis or ureteral tumour, radical

nephroureterectomy with ipsilateral bladder cuff excision (RNU + BCE) is the standard treatment. The da Vinci robot system has been widely used in laparoscopy urologic surgery.

### Indications:

- Upper tract urothelial carcinoma (UTUC)
- Chronic pyelonephritis, renal arterial disease, calculus disease
- Presence of systematic diseases,
- **Benign Diseases:** Multicystic or dysplastic kidneys, reflux nephropathy, obstructive uropathy, xanthogranulomatous pyelonephritis, calculus disease, and protein-losing nephropathy.
- **Carcinoma:** localized and metastatic renal cell carcinoma

### Procedure:

**Nephroureterectomy:** it can be divided into three operative steps: (I) nephrectomy, (II) ureteral extirpation, and (III) resection of the intravesical and intramural ureteral segment, known as BCE.

**Bladder cuff excision (BCE):** Initially the kidney and ureter are freed from their respective surrounding structures, then the final portions of the operation, which include resection of a small length of the ureter (<1 cm) in the intramural portion of the bladder cuff and the ureteral orifice followed by cystotomy repair. Various techniques for BCE: ONU with formal BCE, Endoscopic BCE, Intussusception technique for BCE, LNU for BCE, LNU with transvesical technique for BCE,

- **Open Partial/hemi Nephrectomy (ONU):** Most commonly a combination of excision of the kidney and upper ureter by retroperitoneoscopic approach and bladder cuff excision by lower abdominal incision-open surgery thus is not a minimally invasive method.
- **Laparoscopic Partial/hemi Nephrectomy (LNU):** Most commonly a combination of excision of the kidney and upper ureter by retroperitoneoscopic approach and bladder cuff excision by lower abdominal incision-open surgery thus is not a minimally invasive method.

### Bladder cuff excision

Formal open bladder cuff resection		
<b>Approach</b> Open distal ureterectomy and intramural tunnel resection through anterior cystotomy at time of LNU or RNU	<b>Advantages</b> Arguably most definitive resection for bulky distal disease Excellent closure of posterior cystotomy Minimizes risk of urine & tumor spillage/ureteral perforation	<b>Disadvantages</b> Anterior cystotomy Potentially larger incision Less time efficient
Collins knife + laparoscopic nephroureterectomy		
<b>Approach</b> Transurethral intramural tunnel resection & laparoscopic cystotomy closure at time of LNU	<b>Advantages</b> Time efficient and complete resection of distal ureter Avoids expenses Avoids larger port sites of robotic platform	<b>Disadvantages</b> Requires patient repositioning from lithotomy to lateral Somewhat technically challenging bladder cuff closure with laparoscopic stitch

\* Braun, Avery E., et al. 2020

**Nephroureterectomy:** is a minimally invasive procedure to remove the entire kidney along with the ureter. It is also recommended for multifocal, recurrent, low-grade tumors. The procedure involves removal of the kidney, ureter, and bladder cuff via a thoracoabdominal or flank approach. There both Open and Laparoscopic Nephroureterectomy are common procedures.

**Nephroureterectomy** with resection of the ipsilateral bladder cuff is the gold-standard treatment for tumors.

**Indications:** The indications and Malignant /benign surgical principles for laparoscopic nephroureterectomy are similar to those of the open nephroureterectomy.

- Obstructive uropathy
- In paediatric conditions: non-functioning renal segment of a duplex system associated with ectopic ureterocele, VUR, or obstruction
- **Benign/malignant causes:** Upper urinary tract tumors also for large, high-grade tumors of the renal pelvis and proximal ureter that are organ-confined or locally advanced.
- Tuberculous non-functional kidney: calcification of the renal parenchyma and/or multiple infundibular stenosis or ureteric strictures.

#### Management:

- The surgical management of nephrectomy, whether using **open approach** or a **Laparoscopic approach**, becomes inevitable for those patients with a non-functional kidney.
- **Radical nephroureterectomy (RNU)**, either open or laparoscopic, with the excision of a cuff of bladder mucosa, is the gold standard for the management of Upper urinary tract tumors.
- Laparoscopic approach, open excision of the distal ureter and cuff, endoscopic ureteral “pluck” technique, and endoscopic ureteral “intussusception” technique.

#### 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	Nephroureterectomy with cuff of bladder, Nephroureterectomy (Benign)
<b>i. At the time of Pre-authorization</b>	
a. Clinical notes including evaluation findings and planned line of treatment	Yes

b. CT/ CT-IVP/MRI/MR Urogram report confirming the need for surgery	Yes
<b>ii. At the time of claim submission</b>	
a. Detailed indoor case papers	Yes
b. Intra operative Photograph	Yes
c. Histopathology report	Yes
d. Detailed Procedure / Operative Notes	Yes
e. 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:**

- I. Was the clinical notes and CT/ CT-IVP/MRI/MR Urogram reports are indicative of surgery? Yes

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

### **References:**

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3. Miyake, Makito, et al. "Initial experience of complete laparoscopic radical nephroureterectomy combined with transvesical laparoscopic excision of distal ureter in patients with upper urinary tract cancer." *World Journal of Surgical Oncology* 18 (2020): 1-11.
4. Chen, Wen-Ming, Chen-Li Cheng, and Hao-Chung Ho. "A novel technique to facilitate cystoscopic en bloc excision of the distal ureter and bladder cuff during laparoscopic nephroureterectomy." *Formosan Journal of Surgery* 45.1 (2012): 8-11.
5. Hong, Sungwoo, et al. "Incidence of benign results after laparoscopic radical nephroureterectomy." *JSL: Journal of the Society of Laparoendoscopic Surgeons* 18.4 (2014).



6. Thakre, Atul A., B. Sreedhar, and C. K. Yeung. "Laparoscopy in the management of pediatric vesicoureteral reflux." Indian journal of urology: IJU: journal of the Urological Society of India 23.4 (2007): 414.
7. Li, Canqiang, et al. "Retroperitoneal laparoscopic nephroureterectomy with distal and intramural ureter resection for a tuberculous non-functional kidney." International braz j urol 44.6 (2018): 1174-1181.
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<https://www.medscape.com/answers/452449-177956/how-is-open-radical-nephroureterectomy-performed-for-the-treatment-of-urothelial-tumors-of-the-renal-pelvis-and-ureters>