

## Original Research Article

# A hospital-based descriptive study of Ayushman Bharat-Pradhan Mantri Jan-Arogya Yojana: an analysis of 4844 claims

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## ABSTRACT

**Background:** Current study was undertaken to analyze Ayushman Bharat claims settled during the initial two years of launch of the scheme in an empaneled, public hospital in northern India. Objective was descriptive analysis of 4844 settled claims in terms of demographic characteristics of beneficiaries, procedures and packages availed by them in an empaneled public hospital during the initial two years of the launch of the scheme.

**Methods:** A cross-sectional records study of 4844 settled claims was conducted in a public, empanelled 1015 bedded tertiary care multi-specialty hospital of north India. Anonymized data was collected from the transaction management module of AB-PMJAY scheme and hospitalization record of patients retrieved from medical records department.

**Results:** The study revealed that around 4844 claims were settled during the initial two years (December 2018 to December 2020). Highest number of claims (43.33%) were availed under general medicine category. Chemotherapy packages availed under medical oncology were 37.45% of all claims. Interventional cardiology packages were the costliest.

**Conclusions:** The study provides an insight into the frequency of various claims, their costs, disease/procedural burden of beneficiary patients of AB-PMJAY. It will provide policy feedback and help in future planning and implementation of the scheme.

**Keywords:** Ayushman Bharat, Beneficiaries, Health expenditure

## INTRODUCTION

Ayushman Bharat Pradhan Mantri Jan Arogya Yojna was launched in September 2018 in India. The beneficiaries of the PM-JAY were identified by applying the 'deprivation and occupational criteria' to the socio-economic caste census 2011 (SECC-2011).<sup>1</sup> Although government health expenditure as a percentage of gross domestic product in India has improved from the dismal of 1.1% in 2014-15 to 1.35% in the year 2019-2020 it still remains among the

lowest few in the world.<sup>2,3</sup> As per the latest national health accounts report out of pocket expenditure (OOPE) on healthcare was around 60.6% in 2015-16 which has declined to 47.1% in 2019-20.<sup>4</sup> The Insurance Regulatory Development Authority of India also stated that around 70% people in India did not have any health insurance that put additional financial burden on family and pushed families into poverty or the poor became poorer.<sup>5</sup> Kastor et al found OOPE is 3.5 times higher in private health care facilities.<sup>6</sup>

According to the findings of a study conducted among the urban poor population of Delhi, only 9.5% of RSBY beneficiaries utilized the schemes under the RSBY.<sup>7</sup> To prevent the OOPE, Government of India introduced world's largest social security scheme named National Health Protection Scheme which included the Pradhan Mantri Jan Arogya Yojana (PM-JAY). It is a government funded Health Insurance Scheme with centre to state contribution of 60:40 in most of the states and 90:10 for some, including Jammu and Kashmir. It provides a cover of Rs. 5 lakhs per family per year. There is no restriction on family size, age or gender with coverage of all pre-existing conditions. It covers up to 3 days of pre-hospitalization and 15 days post-hospitalization expenses such as diagnostics and medicines. Services included approximately 1,393 procedures initially.<sup>8</sup>

Currently, literature search did not reveal any hospital-based study of the AB-PMJAY, although field studies regarding awareness or utilization of the scheme have been conducted. Current study is expected to provide insight into the scheme by performing a descriptive analysis of the claims settled in the hospital.

### Objective

To study and analyze settled claims of beneficiary patients of AB-PMJAY for: i) demographic characteristics and procedures/claims availed by them in a tertiary care, multi-specialty, teaching hospital, ii) perform a monetary analysis of the settled claims.

## METHODS

### Study design/study type/study place

It was a cross sectional, retrospective record study carried out at a tertiary care hospital of northern India covering initial two years from the launch of scheme (15<sup>th</sup> December 2018 to 30<sup>th</sup> December 2020). The hospital is a 1015 bedded multispecialty, teaching and research institute and a referral center for the union territory of Jammu and Kashmir.

### Procedure

Anonymized data regarding all the 4844 AB-PMJAY claims was collected from the Transaction Management System portal maintained in the claim processing department of AB-PMJAY office. The data consisted of demographic characteristics of beneficiaries, diagnosis, procedure details and cost of claims. Data was cleaned and checked for any missing information.

### Statistical analysis

Data analysis was performed by using excel-2016 and descriptive statistics of absolute counts, percentages, mean, mode, minimum and maximum were obtained.

### Inclusion/exclusion criteria

Only settled claims were included in the data. Claims which were under process or had been rejected were not included.

## RESULTS

### Demographic analysis of claims

A total of 4844 claims were settled under PM-JAY from 15 December 2018 till 31 December 2020. In 3924 claims (81.00%) beneficiaries belonged to the age group of 15-64 years and 2961 (61.13%) were males.

### Residential status of beneficiaries availing claims

In 4510 claims (93.10%) beneficiary patients belonged to the districts of Kashmir province, while only 301(6.21%) belonged to districts of Jammu province. The highest number of claims (1210=24.98%) were settled for Srinagar district. Approximately, 65% of patients belonged to rural areas. Table 1 reveals the district-wise distribution of beneficiaries in the settled claims.

**Table 1: District wise distribution of claims.**

District	Count of claims	Percentage
Srinagar	1210	24.98
Baramulla	725	14.97
Ganderbal	603	12.45
Anantnag	595	12.28
Budgam	339	7.00
Kulgam	285	5.88
Pulwama	245	5.06
Kupwara	220	4.54
Bandipora	211	4.36
Doda	136	2.81
Shopian	77	1.59
Ramban	60	1.24
Poonch	38	0.78
Rajouri	36	0.74
Not known	33	0.68
Kishtwar	17	0.35
Jammu	7	0.14
Udhampur	4	0.08
Reasi	3	0.06
<b>Total</b>	<b>4844</b>	<b>100.00</b>

### Distribution of claims by specialties

2099 (43.33%) claims belonged to general medicine followed by 1814 (37.45%) to medical oncology. A comparatively much lesser number (244) claims belonged to general surgery, followed by cardiology, urology, neurosurgery, surgical oncology, CTVS, plastic surgery and others respectively (222, 125, 112, 98, 70 and 23 respectively). Fewer claims belonged to pediatric

medicine (14), radiation oncology (9), orthopedics (6), pediatric surgery (4), obstetric and gynecology (3) and otorhinolaryngology (1).

*Analysis of general medicine claims*

Out of 2099 general medicine claims, (848=40.40%) were settled for hemodialysis followed by acute kidney injury (245=11.67%) and acute febrile illness (134=6.38%).

**Table 2: General medicine claims.**

Procedure	Count of claims	Percentage
Haemodialysis dialysis	848	40.40
AKI/renal failure	245	11.67
Acute febrile illness	134	6.38
Others	127	6.38
Accelerated hypertension	81	6.05
Severe sepsis/septic shock	73	3.86
Severe anaemia	62	3.48
Upper GI bleeding	54	2.95
Recurrent vomiting with dehydration	50	2.57
Congestive heart failure	49	2.38
Peritoneal dialysis	45	2.33
Severe pneumonia	42	2.14
Acute and chronic pancreatitis	36	2.00
Acute exacerbation of COPD	35	1.72
Neuromuscular disorders	33	1.67
Respiratory failure due to any cause	32	1.57
Pneumonia	22	1.52
Diabetic ketoacidosis	20	1.05
Systematic lupus erythematosus	19	0.95
Acute pancreatitis	18	0.91
Lower GI hemorrhage	18	0.86
UTI	16	0.86
Dysentery	15	0.76
Metabolic encephalopathy	14	0.71
Vasculitis	11	0.67
<b>Total</b>	<b>2099</b>	<b>100.00</b>

*Analysis of medical oncology claims*

Total number of claims settled for chemotherapy of various cancers were 1812, out of which 883 were for unlisted chemotherapy regimens.

*Analysis of cardiology claims*

A break up of the claims settled for interventional cardiology. Maximum number of claims were for percutaneous transluminal coronary angioplasty (PTCA) with placement of medicated stents (111=49.55% of I.

cardiology claims), followed by Permanent pacemaker implantation, unspecified claims, right heart catheterization and ASD device closure respectively (49=21.88%, 10.27%, 7.59% and 4.46% of cardiology claims respectively).

**Table 3: Claims settled for chemotherapy claims for cancers.**

Chemotherapy claim	Count
Unlisted regimen	883
Breast cancer	146
Colorectal cancer	99
Lung cancer	95
Multiple myeloma/amyloidosis	90
Acute lymphoblastic leukemia	85
Esophageal/stomach cancer	63
Non Hodgkin's lymphoma	62
Esophageal cancer	35
Acute myeloid leukemia	31
Ewing's sarcoma	31
Bone tumors/osteosarcoma/hepatoblastoma	26
Medulloblastoma/brain PNET	16
Ovarian cancer	16
Acute promyelocytic leukemia	14
Gall bladder cancer/ cholangiocarcinoma	13
Head and neck cancer	12
Hodgkin's lymphoma	12
Pancreatic cancer	12
Soft tissue sarcoma	9
Cervical cancer	7
Rhabdomyosarcoma	7
Chronic lymphocytic leukemia	6
Germ cell tumor	6
Multiple myeloma with metastasis bone	6
Neuroblastoma	5
Prostatic cancer	5
Metastatic melanoma	4
Brain cancer	3
Anal cancer	2
Chronic myeloid leukemia	2
Medulloblastoma/CNS PNET	2
Osteogenic sarcoma	2
Gestational trophoblastic neoplasia	1
Hepatocellular carcinoma	1
Peripheral T cell lymphoma	1
Vulval cancer	1
<b>Total claims</b>	<b>1812</b>

*Analysis of surgical claims*

Among surgical claims maximum number (244) were settled for general surgery followed by urology (125), neurosurgery (112), surgical oncology (98), cardiothoracic-vascular surgery (70), plastic surgery (23).

**Table 4: Breakup of general surgery claims.**

Procedure details	Count
Cholecystectomy with/without exploration of CBD	24
Unspecified surgical package	23
Ileostomy	12
Hernia	11
Colostomy	10
Lymph Node Biopsy	9
Appendectomy, open/lap	8
Hemorrhoidectomy (fissurectomy/ fistulectomy)	8
Total thyroidectomy	8
Hydatid cyst of liver	7
Laparotomy-peritonitis lavage and drainage	7
Partial/subtotal gastrectomy for carcinoma	7
Resection anastomosis (open)	7
Cholecystostomy	6
Drainage pericardial effusion	6
Incision and drainage of large abscess	5
Splenectomy	5
Debridement of ulcer	4
Gastrojejunostomy	4
Intestinal obstruction	4
Lap. Assisted right hemi colectomy	4
Radical mastectomy	4
Sigmoid resection	4
Distal pancreatectomy with pancreatico-jejunostomy	3
Excision pilonidal sinus	3
Flap reconstructive surgery	3
Pancreaticoduodenectomy	3
Pelvic abscess- open drainage	3
Rectopexy	3
Others	39
<b>Total</b>	<b>244</b>

**Table 5: Breakup of urology and neurosurgery claims.**

Urology		Neurosurgery	
Procedure	Count	Procedure	Count
Percutaneous nephrolithotomy (PCNL)	28	Excision of brain tumor supratentorial	40
Transurethral resection of prostate (TURP)	24	Laminectomy with fusion and fixation	14
Nephrectomy	14	Cranioplasty with endogenous graft	12
DJ stent unilateral including cystoscopy, ureteric catheterization, retrograde pyelogram	9	Burr hole surgery with chronic sub dural hematoma	9
Transurethral resection of the bladder tumor (TURBT)	9	Shunt surgery ventriculo-peritoneal	8
Bilateral orchidectomy for hormone ablation	5	Aneurysm clipping including angiogram	7
Nephrostomy- percutaneous ultrasound guided	5	Spine- decompression fusion with fixation	4
Ureteroscopy lower ureter, stone removal with lithotripsy	5	External ventricular drainage (EVD) including antibiotics	3
Urethroplasty- end to end	4	Unspecified surgical package	2
Pyeloplasty/pyeloureterostomy/pyelopyelostomy	4	Arterio venous malformation (AVM) excision	1
Ureteric reimplantation	3	Endoscopic CSF rhinorrhea repair	1
Adrenalectomy-bilateral, open	2	Excision of orbital tumour	1
Boari flap for ureteric stricture	2	Extradural hematoma along with fixation of fracture of 2 or more long bone	1
Pyelolithotomy	2	Hematoma- brain (hypertensive)	1
Radical cystectomy	2	Head injuries, duroplasty with endogenous graft	1
Cystolithotomy-open, including cystoscopy	1	Surgery for haematoma- intracranial	1

Continued.

Urology		Neurosurgery	
Cystolithotripsy/urethral stone endoscopic, including cystoscopy	1	Nerve decompression	1
Excision of urethral caruncle	1	Posterior cervical fusion with implant (lateral mass fixation)	1
Unspecified surgical package	1	Spine- intradural tumour with fixation	1
Urethral stone removal endoscopic, including cystoscopy	1	Subdural hematoma along with fixation of fracture of single long bone	1
Urethroplasty-substitution-two stage	1	Thoracic/lumbar corpectomy with fusion inclusive of implant	1
Varicocele-unilateral-microsurgical	1	Ventricular puncture	1
<b>Total</b>	<b>125</b>	<b>Total</b>	<b>112</b>

**Table 6: Breakup of surgical oncology claims.**

Procedure details	Count
Oesophageal stenting	18
Abdominal wall tumour resection with reconstruction	14
Radical hysterectomy + bilateral pelvic lymph node dissection + bilateral salpingo ophorectomy (BSO)/ ovarian transposition	8
Radical/modified radical mastectomy	6
Abdominal wall tumour resection	4
Radical parotidectomy	4
Abdominoperineal resection lap.	3
Oesophagectomy with two field lymphadenectomy	3
diagnostic/staging laparoscopy	2
neuroblastoma excision	2
glossectomy	2
germ cell tumor excision	2
skin tumours wide excision + reconstruction	2
total parotidectomy	2
axillary dissection	1
benign soft tissue tumour – excision	1
Bilateral pelvic lymph node dissection (BPLND)	1
Breast lump excision (benign)	1
Class I radical hysterectomy + bilateral salpingoophorectomy + BPLND- lap.	1
Distal pancreatectomy with pancreatico jejunostomy	1
Excision of growth from tongue with neck node dissection	1
Exploratory laparotomy f / b diversion bypass	1
Partial maxillectomy- open	1
Hemi thyroidectomy	1
Left hemicolectomy- open	1
Malignant soft tissue tumour- excision	1
Myocutaneous flap	1
Esophagectomy transthoracic	1
Orchidectomy	1
Pancreaticoduodenectomy (whipples)	1
Partial gastrectomy for carcinoma	1
Partial laryngectomy (voice preserving)	1
Right hemicolectomy- open	1
Sacral resection	1
Segmentectomy- hepatobiliary system	1
Simple mastectomy	1
Total gastrectomy- open	1
Total thyroidectomy with central compartment LN dissection with lateral LN dissection	1
Tracheal stenting	1
Vertebral tumour excision and reconstruction	1
<b>Total</b>	<b>98</b>

**Table 7: Breakup of CTVS and plastic surgery claims.**

CTVS claims		Plastic surgery claims	
Procedure	Count	Procedure	Count
Single valve procedure	18	Revascularization of limb/digit	8
Others (one each)	12	Tissue expander for disfigurement following burns/ trauma/ congenital deformity (including cost of expander)	4
Double valve procedures	11	Total body surface area burns (TBSA) (thermal/ scald/ flame burns)	2
Unspecified surgical package	10	Diabetic foot surgery	2
ASD	5	Nerve plexus injuries, tendon injury repair/reconstruction/ transfer	2
Lung cyst excision	5	Ear pinna reconstruction with costal cartilage/ prosthesis	1
Thoracotomy	3	Emergency tendons repair ± peripheral nerve repair/ reconstructive surgery	1
Decortication	2	Free grafts- Wolfe grafts	1
Surgery for cardiac tumour/ left atrial myxoma/ right atrial myxoma	2	Head injury requiring facio-maxillary injury repairs fixations (including implants)	1
AVR + root enlargement	2	Skin flap- rotation flaps	1
<b>Total</b>	<b>70</b>	<b>Total</b>	<b>23</b>

**Table 8: Specialty-wise break-up of cost of claims.**

Category	Count of claims	% of total claims	Sum of claims	% cost	Minimum	Maximum	Mean	Mode	Interquartile range
General medicine	2099	43.33	4655840	6.51	1100	31680	2218	1980	
Medical oncology	1814	37.45	22130400	30.95	1650	229460	12213	1812	8250
General surgery	244	5.04	4025440	5.63	1650	64000	16497	11000	
Cardiology	222	4.58	19201020	26.86	5500	488120	86882	71500	33000
Urology	125	2.58	3394970	4.75	6600	55000	27159.76	27500	
Neurosurgery	112	2.31	5372975	7.51	16500	82500	47972	55000	
Surgical oncology	98	2.02	3745570	5.24	6600	66000	38220	27500	
CTVS	70	1.45	7592959	10.62	11000	214500	106943	137500	88000
Plastic surgery	23	0.47	814690	1.14	12540	55000	35421.3	27500	
Pediatric medicine	14	0.29	49500.00	0.07	1980.00	17820.00	3300.00	1980	
Radiation oncology	9	0.19	169900	0.24	4950	50000	18877.78	11000	
Orthopedics	6	0.12	189200	0.26	7700	55000	315333.33	16500	
Pediatric surgery	4	0.08	82500	0.12	16500	27500	20625	16500	
OBG	3	0.06	64000	0.09	20000	22000	21333.33	22000	
Otorhinolaryngology	1	0.02	8800	0.01					
<b>Grand total</b>	<b>4844</b>	<b>100.00</b>	<b>71497764</b>	<b>100.00</b>	<b>1100</b>	<b>488120</b>	<b>14763.47</b>	<b>1980</b>	<b>11770</b>

**Table 9: Claims worth INR.100000 and above.**

Claims costing above INR 1 lac				
Specialty	Count of claims	Percentage	Cumulative value of claims	Percent of total claim amount
CTVS	37	52.86% of all CTVS claims	₹ 55,79,500.00	7.80
Cardiology	44	19.82% of all cardiology claims	₹ 75,24,401.00	10.52
Medical oncology	24	1.32% of all medical oncology claims	₹ 28,90,580.00	4.04
<b>Overall</b>	<b>105</b>	<b>2.17% of total (4844) claims</b>	<b>₹ 1,59,94,481.00</b>	<b>22.37</b>

**Results of objective 2**

A total of 4844 claims were settled during the period for a total amount of INR.71497764 (seven crore fourteen lac

ninety-seven thousand seven hundred and sixty-four Indian rupees) (Table 8).

Out of these claims 3870 (79.89%) were for an amount ≤INR.20,000.

## DISCUSSION

The study revealed that around 4844 claims were settled during initial two years from the start of implementation of AB-PMJAY in the hospital. Of these 80% of the claims, were for beneficiaries in the age group 15-64 years and in 61.13% claims, beneficiaries were male. Kaur et al in a study regarding Ayushman Bharat scheme found that 51.5% claims for all packages showed a male predominance, which is 9% lesser than our study.<sup>9</sup> Devadasan et al studied two community health insurance schemes in India in 2006 and found that 59% and 75% of those hospitalized were male beneficiaries in ACCORD and SEWA respectively.<sup>10</sup> Mirza also found a male preponderance (55.1% when he analyzed over 90,000 cases admitted in All India Institute of Medical Sciences.<sup>11</sup>

In 65% claims, beneficiaries were rural. Chauhan et al also observed that 60% patients belonged to rural areas.<sup>12</sup> In our study we found that although maximum number of patients belonged to Srinagar which is within 30 km radius but patients from districts which were 50 km away from the hospital also availed the services; which is understandable as SKIMS is the apex referral hospital of Kashmir. In contrast, Devadasan et al from a study conducted among RSBY enrolled households in Patan of Gujrat found that hospitalizations among beneficiaries living greater than 30 km away from towns were significantly lower.<sup>10</sup> We observed that out of ten districts majority of beneficiaries belonged to the four, namely, Srinagar, Baramulla, Anantnag and Ganderbal of Kashmir province. Only few beneficiary patients from various districts of Jammu province availed the benefit of AB-PMJAY from SKIMS, the probable reason being difficult road connectivity, due to which their referral destination is neighbouring states of the Northern plains of India. In comparison to our study, Kastor et al who based his OOPE study on NSSO survey data of 2014, concluded that out of the total sampled population- 48.5% were females, 7.9% were aged 60 and above, and 30% were residing in urban areas.<sup>6</sup>

We observed that a major proportion of the claims were settled for procedures under non-communicable disease like chemotherapy for cancer, dialysis for chronic kidney disease, angioplasties and stents for blocked coronaries. It is now a known fact that non-communicable disease is as much a disease of the poor as it is of the rich, and its impact is felt more on the low-income groups leading to their further impoverishment. NCD burden in rural India has increased over the years as observed by Ross et al, when they studied NCDs among adults of age 35-70 years.<sup>13</sup> AB-PMJAY has taken care of heavy OOPE incurred on non-communicable disease by the poor, such as, chemotherapy for cancers, coronary angioplasties for occluded coronaries in ischemic heart disease. Procedures of coronary stenting and pacemaker implantation were most frequent claims in cardiology

with very high value of package cost which would otherwise be beyond reach of the lower socio-economic strata.<sup>14-16</sup> Based on the global burden of disease PFHI has released a report in which cardiovascular disease is a leading cause of death in all age groups above 15 years.<sup>17</sup>

Specialty wise, majority of the claims were availed under general medicine category (43.33% of all claims), followed by chemotherapy in cancer patients under the specialty of medical oncology (37.45% of all claims). Majority of the claims under medical oncology specialty were settled for unlisted (unspecified) procedure; the reason being that in the first year of AB-PMJAY implementation, health benefit package 1.0 was operational which grouped many chemotherapies under unspecified category. Beyond unspecified packages most frequent claims were settled for breast cancer being the most common cancer among women in the region.<sup>18</sup> Procedures of hemodialysis (HD), followed by acute kidney injury (AKI) were most frequent claims under the general medicine category (40.40% and 11.67% of general medicine claims respectively) which is expected, keeping in view the increasing global burden of ESRD and AKI and corresponding disease load in our hospital.<sup>19</sup> HD is the most common kidney replacement therapy in ESRD, which poor patients were not able to continue previously due to financial constraints, and now AB-PMJAY has made it more affordable.<sup>20,21</sup>

Among surgical claims, benefit under general surgery was availed in majority (244 of total claims), followed by urology (125) neurosurgery (112), surgical oncology (98) and CTVS (70). Earlier studies regarding publicly financed insurance schemes in India have revealed comparable or contrasting observations. Utilization of claims in a particular hospital setting depends upon the broad or super-specialty departments available therein. Patel et al in a utilization survey of RSBY beneficiaries observed that 50% patients utilized packages in general medicine, 25% in general surgery, 11.1% in neurosurgery.<sup>22</sup> Prinja et al revealed that, in contrast to secondary care, state sponsored health insurance schemes catered mainly to tertiary care needs for injuries (21-27%), oncology (6-17%) and cardiovascular/respiratory/nephrology conditions (9-10%). They also concluded that RSBY scheme was used predominantly for medical as compared to surgical procedures.<sup>23</sup>

On the other hand, Devdasan et al found that that among 520 hospitalized, RSBY beneficiary patients, common reasons for admissions were pregnancy related (96), hysterectomies (58), injuries (53) and cardiovascular related disease.<sup>10</sup>

Patil et al conducted a survey in Mumbai on surgical procedures availed by beneficiaries of employees insurance scheme. They found that cataract (22.8%),

caesareans (3.8%), surgeries for fractures (3.27%) and hernia (2.86%) were the commonest surgeries. 44.2% of surgeries belonged to the essential surgeries.<sup>24</sup> In our hospital no obstetric surgery was claimed under AB-PMJAY due to the fact that pregnancy related cases were covered under Janani Swasthya Surakhsha Karyakaram (JSSK). Also, an inpatient ophthalmology department does not exist in the hospital.

Total value of settled claims was INR.71497764.00 out of which approximately four-fifth (3870=79.89%) were for less than INR 20,000 range. These were mostly medical packages, majority of which are priced around INR 2000. Only some packages for cancer treatment are above INR 20,000 range, while most are much lower. On the other hand, most of the surgical packages are costlier especially, CTVS claims. Interventional cardiology packages are the costliest. Descriptive stats for claim values like minimum, maximum, mean and mode were calculated. Interquartile range was calculated where outliers were found or distribution was outside normal. It was observed that 105 claims (2.17%) belonging to CTVS, cardiology and medical oncology were valued at  $\geq$ INR 1lac and accounted for INR.15994481 (22.37%). Of these 44 belonged to cardiology and accounted for INR.7524401 (10.52% of total claim amount). Infact, 4 claims in cardiology were for INR 4 lac and above. 37 claims belonged to CTVS and accounted for INR 5579500 (7.80% of total claim amount). 24 claims (0.51%) belonged to medical oncology and accounted for INR.2890580 (4.04% of total claim amount). It is worthwhile to mention that RSBY had a cap of 30,000 on sum insured and many surgical procedures especially CTVS, neurosurgery etc. would incur OOP expenses from the patients. Sriram et al have conveyed through their study that poor people enrolled in public health insurance programs for the poor would still incur OOPE for inpatient care.<sup>25</sup>

The higher package costs in AB-PMJAY is hoped to reduce the OOPE, however evidence needs to be gathered on the subject. A systematic review conducted by Reshmi et al on Impact of public-funded health insurances in India on health care utilization and financial risk protection opined that there were conflicting studies on the effect of PFHIs on OOPE and CHE, however they concluded that there was a lack of studies yet on AB-PMJAY and it was immature to comment on its impact.<sup>26</sup>

Limitation of this study is that it was a uni-centric study so comparison could not be done.

## CONCLUSION

The study provides an insight into the frequency of various claims, their costs, disease/procedural burden of beneficiary patients of AB-PMJAY. It is limited to a single center but can be expanded into a multicentric one. It will provide policy feedback and help in future planning and implementation of the scheme.

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