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## Impact of Abpmjay on Healthcare Services at Department of Orthopaedics of a Tertiary Care Level District Hospital

**Aditya K. Agrawal, Anuja Agrawal, Shabana Khan, Subhasish Chatterjee**

### Abstract

The health goal SDG (Sustainable Development Goal) aims 'To ensure healthy lives and promote well-being for all at all ages' with a target of Universal Health Coverage (UHC). The motive is to reduce out of pocket Hospitalization expenses, improve access of all families to quality inpatient care and day care surgeries, equity in access to health services, to improve quality of services at affordable price and protection against financial risk. The aim of our study is to know the socio- economic impact and patient related outcome measures of Ayushman Bharat National Health Protection Scheme (AB PMJAY) on health care services at Department of Orthopaedics at a tertiary care district Hospital in last one and half years. **MATERIALS AND METHODS:** It is a retrospective, observational, non-interventional and descriptive study. Duration of Study: October 2018 to March 2020. Place of Study: Ayushmann Bharat Kiosk and Department of Orthopaedics at the tertiary care district hospital. **OBSERVATIONS AND RESULTS:** According to the data that was collected more than 45% of patients admitted were under Ayushman bharat scheme are of age group 20-40 more than 35% are of age group 40 -60 years. Among these patients, maximum were males (70%) who got operated mainly for total hip replacements in younger age group and total knee replacements in older age group. **DISCUSSION:** In last 12 months 1773 patients were admitted in tertiary care district hospital under Ayushman bharat scheme. Among which 243 patients were admitted to orthopaedic department. 98% patients were from neighbouring state. The maximum number of cases admitted and operated in orthopaedic department at the hospital was in the month of April 2019 and November 2019. **CONCLUSION:** The journey is long but we hope that government will be able to achieve its target of affordable and accessible healthcare for all in years to come. Future audits and research will be required to improvise and digitalise our healthcare services at affordable rates.

**Keywords:** AB PMJAY; Orthopaedics department; UHC Level of Evidence: III, prospective study.

### Introduction

The government intends to increase the total health expenditure to 2.5% of gross domestic product (GDP) by 2025, from the current 1.15%, with more finance flow to the states, in a bid to achieve Universal Health Coverage. The health ministry has announced that 150,000 sub-health centres will be transformed into health and wellness centres for providing comprehensive primary care.

The Centre also announced the world's largest government-funded health care programme, aimed at benefiting 10 crore poor families by providing coverage of up to Rs 5 lakh per family per year for secondary and tertiary care hospitalisation<sup>1</sup>. Ayushman Bharat Pradhan Mantri Jan Arogya Yojana is the largest healthcare scheme to provide quality treatment at affordable prices. It is also called Modicare just like Obamacare of the US. Patients below poverty line get the benefit to spend upto half a million rupees for the family on expenses pertaining to treatment of any of its family members every year for free. All other schemes prior to the launch of AB PMJAY since September 2018 are slowly integrated with this scheme to achieve universal healthcare for around sixty million people<sup>2</sup>.

The aim of our study is to know the socio- economic impact and patient related outcome

measures of Ayushman Bharat National Health Protection Scheme on health care services at Department of Orthopaedics, of a tertiary care district hospital. The objectives are to know the demographic data of patients admitted under Ayushman Bharat Scheme, to know the number of admissions during last twelve months under Ayushman Bharat Scheme, to know the number of operations done under Ayushman Bharat and to know the satisfaction of the patients and relatives regarding Ayushman Bharat Scheme through telephonic feedback questionnaires.

### Materials and Methods

It is a prospective, observational, non-interventional and descriptive study from September 2018 to March 2020. It is an audit of short-term results regarding the socio economic and patient related outcome measures of Ayushman Bharat National Health Scheme on healthcare services in the Department of Orthopaedics at a tertiary care district hospital.

The inclusion criteria include all the patients admitted at the hospital under Ayushman Bharat Yojana. The exclusion criteria include all the other patients who are admitted not under Ayushman Bharat Yojana. The data was collected from registration kiosk of Ayushman Bharat Scheme resource persons at the hospital from October 2018 to March 2020. The data was filled in the proforma as enclosed within Figures 1. The patients and their relatives were contacted on telephone and asked about their overall experience regarding Ayushman Bharat scheme. The results were statistically analysed and documented with the help of SPSS software. The p value of less than 0.01 was considered statistically significant.

### Observation and Results

In our study, we found more than 45% patients in the age group of 20-40 years and more than 35% patients in the age group of 40-60 years had availed the benefit of Ayushman Bharat Pradhan Mantri Jan Arogya Yojana Scheme (AB PMJAY). If combined, we found more than 80% patients in 20-60 years age group which constitutes around more than 50% population of our country. Among these patients, more than 70% were males as far as the overall influx of patients in the hospital, individual departments and operations are concerned. This may be due to the fact that males get most commonly affected compared to females as far as avascular necrosis of hip, osteoarthritis of knee and fractures of long bones due to road traffic accidents are taken into consideration. Thus, the scheme has benefitted the most productive age group of our society.

The orthopaedic patients were 243 out of 1773 patients admitted in the hospital (13.7%). The maximum patients operated were in cardiac surgery, urosurgery and neuro surgery. If gross profit is taken into consideration, orthopaedic patients constituted 20% revenue for the hospital. The most common orthopaedic condition for which patients got operated was total hip replacement (n=86, 35%) and total knee replacement (n=31, 12.75%) as shown in tables 1, 2 and 3. The total hip replacement was required for avascular necrosis of femoral head caused by alcohol intake, sickle cell disease, ankylosing spondylitis and post traumatic osteoarthritis of hip.

The other conditions include fracture fixation (n=77, 31.68%), hemiarthroplasty of hip (n=24, 9.87%) and

arthrodesis (n=5, 2.05%). Most of the patients were from neighbouring state (n=226, 93%). It is because the hospital is already famous for its excellent health care services at affordable and accessible rates. Our hospital achieved maximum portability all over India putting the state to number one spot among all states and respective hospitals.

The maximum patients were operated in the month of April and November 2019 at our hospital. It might be due to the fact that the knowledge and awareness to avail benefit of AB PMJAY started slowly and percolated through mouth-to-mouth publicity. Also, arthritic pain increases in colder climates leading to more replacement surgeries in the months of November and December.

As far as the telephonic feedback questionnaires are concerned, the overall response was excellent. The patients and their relatives were extremely satisfied with the AB PMJAY scheme and its implementation at our hospital. Half of the patients heard about this scheme from social media (newspapers, television and internet). The other half of the patients came to know about this scheme from hospital AB PMJAY Kiosk. The suggestions given by the patients were to get faster approval for AB PMJAY which usually takes 1-2 days. Before the approval, the cost of all the investigations and treatment has to be borne by the patients and their relatives. Also, some relatives demanded special rooms or deluxe rooms which are not for patients admitted under AB PMJAY. Few of them requested to include out-patient services and investigations under this scheme which is at present not approved by the government.

### Discussion

Healthcare has become one of India's largest sectors - both in terms of revenue and employment. Healthcare comprises hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance and medical equipment. The Indian healthcare sector is growing at a brisk pace due to its strengthening coverage, services and increasing expenditure by public as well private players<sup>3</sup>.

Indian healthcare delivery system is categorised into two major components - public and private. The Government, i.e. public healthcare system comprises limited secondary and tertiary care institutions in key cities and focuses on providing basic healthcare facilities in the form of primary healthcare centres (PHCs) in rural areas. The private sector provides majority of secondary, tertiary and quaternary care institutions with a major concentration in metros, tier I and tier II cities. India's competitive advantage lies in its large pool of well-trained medical professionals. India is also cost competitive compared to its peers in Asia and Western countries. The cost of surgery in India is about one-tenth of that in the US or Western Europe. The healthcare market can increase three-fold to Rs 8.6 trillion (US\$ 133.44 billion) by 2022<sup>4,5</sup>.

These were the road blocks and hindrance for successful implementation of the scheme. There is neither any provision for treatment of major complications in these packages nor for intra operative change of line of treatment. For example, there is no provision for change of the package from cementless total hip replacement to cemented total hip replacement. The patients want the benefit of this scheme equally accessible and available in all private as well as government hospitals across the country. All

orthopaedic conditions are not included in this scheme for example patients coming from neighbouring state to our hospital with certain fractures cannot get fixations done here because there are no packages available for that fracture. Also, package from knee arthroscopy started after six months of commencement of the scheme while shoulder arthroscopy is still not included. Because of AB PMJAY scheme, patients with fracture wait for cards to get activated. Their family members even try to issue card which they did not value to have before the accident. Due to this, the patients lie on hospital beds for weeks. This may lead to complications of chest (pneumonia), urinary tract infections, bed sores, mental depression and loss of personal hygiene.

Patients want card for free healthcare services to extend for OPD (outpatient department) services like fever, cough, low back ache, knee pains which are normally treated conservatively with medications and physiotherapy.

Patients also demand for special rooms having air conditioners, dedicated staff nurse and fast-food items to crave for their luxuries than to get treatment for the concerned disease. This is not possible as it a type of free healthcare service provided by the government especially to the people having ration cards and below poverty line cards. It is a step in the direction to provide best healthcare facility with latest treatment protocols and equipment at affordable rates for equitable distribution, easy accessibility and thereby improving research and quality of healthcare for millions of countrymen<sup>6,7</sup>.

Patient wants special implants (titanium instead of stainless steel) to be included in this free surgery package. This is not possible because of the cost incurred by the hospital in the treatment and procedures carried out on the patient over several days. Patients also want follow up treatment for the operated case to be included in AB PMJAY. This includes consultation, x rays, physiotherapy, suture removal procedures and medications. This is not possible because this will lead to chaos for the government to allocate resources to non-urgent procedures instead of primary emergency and elective procedures.

The limitation of our study is that it is just one and half year completion of Ayushman Bharat Scheme and Pradhan Mantri Jan Arogya Yojana. During COVID 19, ABPMJAY scheme was temporarily halted during and few months after the lockdown. There were many hiccups along the

implementation process, communication with the patients, increasing awareness among the patients and inclusion of all countrymen. Only those people below poverty line are included in this scheme. It is a small step but a giant leap to achieve our vision and mission of universal health coverage for our countrymen.

### Conclusion

According to the data that was collected more than 45% of patients admitted to DGH under Ayushman bharat scheme are of age group 20-40 and more than 35% are of age group 40 -60 years. Among these patients, maximum were males (70%) who got operated mainly for total hip replacements in younger age group and total knee replacements in older age group. In last 18 months 1773 patients were admitted in the hospital under Ayushman bharat scheme among which 243 patients were admitted to orthopaedic department. Maximum patients were from neighbouring state. The maximum number of cases admitted and operated in orthopaedic department at Dhiraj Hospital was in the months of April 2019 and November 2019. The journey is long but we hope that government will be able to achieve its target of affordable and accessible healthcare for all in years to come. Future audits and research will be required to improvise and digitalise our healthcare services at affordable rates.

### Conflict of Interest: None

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### Ethical Approval: Yes

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### Table Legends

**Table 1:** Number of patients operated for different conditions in months from October 2018 to March 2020.

Month- Year	Total Hip Replacement	Total Knee Replacement	Hemiarthroplasty	Arthroscopic knee ligament reconstruction	Fracture fixation	Miscellaneous
Oct-2018 M 7 F 2 Total 9	2	1	2	NA	4	0
Nov-2018 M 6 F 2 Total 8	4	1	2	NA	1	0
Dec-2018 M 6 F 1 Total 7	3	3	1	NA	0	0
Jan-2019 M 11 F 2 Total 13	5	3	1	NA	4	0
Feb-19	3	1	4	NA	2	Ankle Arthrodesis 1

<b>M 8 F3 Total 11</b>						
<b>Mar-2019 M 10 F2 Total 12</b>	6	3	0	NA	3	0
<b>Apr-2019 M 20 F4 Total 24</b>	13	2	4	NA	5	0
<b>May2019 M12 F2 Total 14</b>	11	1	0	NA	2	0
<b>Jun-2019 M 9 F 3 Total 12</b>	5	3	1	NA	1	Ankle Arthrodesis 2
<b>Jul-2019 M 8 F3 Total 11</b>	7	2	0	NA	2	0
<b>Aug-2019 M 7 F 2 Total 9</b>	2	3	0	NA	2	Ankle Arthrodesis 2
<b>Sep-2019 M 10, F04 Total 14</b>	4	1	2	5	1	Above knee Amputation 1
<b>Oct-2019 M 7, F3 Total 10</b>	3	0	0	0	5	Ulnar neurolysis1 Flexor tendon transfer 1
<b>Nov-2019 M 15, F10 Total 25</b>	5	1	5	3	11	0
<b>Dec-2019 M 14, F7 Total 21</b>	8	3	1	3	5	Posterior lumbar spine fixation 1
<b>Jan-2020 M 13, F3 Total 16</b>	4	1	0	2	9	0
<b>Feb-2020 M 12, F5 Total 17</b>	0	2	2	0	12	Ilizarov 1
<b>Mar-2020 M11, F1 Total 12</b>	1	0	1	2	8	0
<b>Total 243 M 186 F67</b>	86	31	24	15	77	10

**Table 2:** Age wise distribution of patients admitted under AB PMJAY.

<b>Age Distribution</b>	<b>N (Ortho)</b>	<b>%</b>	<b>N (Hospital)</b>	<b>%</b>
0-20	19	7.81%	153	8.63%
20-40	110	45.31%	627	35.38%
40-60	86	35.16%	759	42.83%
>60	28	11.72%	233	13.15%
<b>Total</b>	<b>243 (Ortho)</b>	<b>100.00%</b>	<b>1772 (Hospital)</b>	<b>100.00%</b>

**Table 3:** Gender wise demographic distribution of patients admitted under AB PMJAY.

<b>Gender</b>	<b>N (Ortho)</b>	<b>%</b>	<b>N (Hospital)</b>	<b>%</b>
Male	186	72.43%	1205	68.00%
Female	67	27.57%	567	32.00%
<b>Total</b>	<b>243 (Ortho)</b>	<b>100.00%</b>	<b>1772 (Hospital)</b>	<b>100.00%</b>

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