



A study on the utilisation of Ayushman Bharat Arogya Karnataka (ABArK) among COVID patients admitted in a Tertiary Care Hospital

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ABSTRACT

Background: Out of pocket and catastrophic healthcare expenditures are leading households to financial hardships in India. The covid-19 pandemic has further added up in the loss of jobs, savings, and lives. The inclusion of covid-19 treatments in health insurance schemes like Ayushman Bharat Arogya Karnataka by the Government has helped families from financial hardships and catastrophic healthcare expenditures.

Objectives: To estimate the utilization of the Ayushman Bharat insurance scheme among covid-19 positive patients in a tertiary care hospital, Dakshina Kannada District.

Methodology: It was a record-based, cross-sectional study. The study was conducted by collecting data from the hospital medical records department by taking prior permission at a Tertiary Care Hospital of Dakshina Kannada District, Karnataka. The data was collected and entered into an excel sheet, analyzed, and presented in percentage in the tabular form.

Results: In the present study total 1367 covid-19 positive cases were admitted. Majority of the patients were from Karnataka accounting for 93.92%. The eligible subjects for ABArK were 906 (66.27%), Out of which 714 (78.8%) had utilized the scheme. Among the 714 patients who utilized the ABArK scheme 443 (62.04%) were men and 271 (37.95%) were women.

Conclusion: The utilization of this scheme requires further improvement by creating awareness activities among general public. This helps in reducing the out-of-pocket expenditure and burden in accessing the healthcare facility.

1. Introduction

The World Health Organization defines universal health coverage (UHC) as means to enable all people and communities to use promotive, preventive, curative, rehabilitative, and palliative health services they need, of sufficient quality to be effective.¹ Risks are inevitable which have to be met by minimizing their effects or by decreasing the risks. Hence, the concept of health insurance came into existence.² Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) is India's Government-funded health insurance scheme that covers more than 10.74 crore poor and vulnerable families.³ Karnataka has been at the forefront of successfully implementing this health care schemes through Suvarna Arogya Suraksha Trust on an Assurance Mode, for the benefit of a large section of BPL and APL families.⁴ This scheme was named as

Ayushman Bharat Arogya Karnataka (ABArK) in Karnataka. Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM-JAY)- a most promising investment for human capital by the Government of India; is a commitment towards the less advantage in the society by insuring them against major diseases.⁵ The scheme envisages reducing Out-of-pocket expenditure (OOPE) and catastrophic expenditure on health care through the participation of the private sector in addition to the existing network of public hospitals.⁶ Insurance may be described as a social device to reduce or eliminate the risk of life and property.⁷ Pradhan Mantri Jan Arogya Yojana (PMJAY) has played a role in correcting the imbalances in healthcare spending across states, it has not been enough to compensate for the inherent fiscal disabilities of poorer states.⁸ The average hospitalization of a covid positive patient is 7–10 days and the average cost per person for hospitalization is approximately 76,644 ±

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12,706 rupees.⁹ So the present study was aimed to know the utilization of Ayushman Bharat Arogya Karnataka among covid-19 patients admitted in the tertiary care hospital.

2. Materials and methods

It is a record-based, cross-sectional study. The study was conducted by collecting data from the hospital medical records department by taking prior permission at Tertiary Care Hospital of Dakshina Kannada District in Karnataka.

2.1. Study subjects

There were no subjects involved in the study. The study was conducted by collecting the information from the records of all the covid-19 positive patients, who were eligible (patients with positive test report and admitted to general ward)

2.2. Study instrument

Information was collected from the hospital medical records department. The data was collected on the patients admitted for covid-19 with positive test report in the tertiary care hospital. The covid-19 positive patient's individual information sheets were used to gather information about socio-demographic characteristics, coverage, and utilization of ABArK.

2.3. Sample size

The sample size was all the patients admitted for covid-19 from March 2020 to May 2021. The total of 1367 patients admitted during the period were taken as study subjects.

2.4. Sampling method

The sampling method is universal sampling. All the patients admitted with covid-19 were taken as samples/study subjects and the information was collected from the medical records department with prior permission from the concerned authority. All the relevant information was taken from the records of the covid-19 positive patients admitted to the hospital during the study period.

2.5. Method of data collection

The study was conducted in a Tertiary Care Hospital in Dakshina Kannada District. The data were accumulated from the medical records department with prior permission. The data were collected from the records of patients admitted due to covid-19 and the data was analyzed.

2.6. Statistical analysis

The data was entered on the Microsoft excel (version 2016) and the data is presented in tabular form. The data is expressed in terms of frequency and percentage.

3. Results

In [Table 1](#), A total of 1367 covid-19 positive cases admitted from July 2020 to May 2021 to the tertiary care hospital in Dakshina Kannada district in Karnataka. Among the admitted patients, male patients in the age group 41–60 were found to be highest 286 (34.16%), followed by 61–80 age group 253 (30.22%) and 21–40 age group (29.74%) respectively. Among the females, the 21–40 age group had 215 (40.56%) patients followed by age groups 41–60 and 61–80 to 144 (27.16%) and 135 (25.47%) patients respectively.

In [Table 2](#), Among all the patients admitted, the majority of them

Table 1

Shows the distribution of covid-19 positive patients based on age groups (n = 1367).

Age group	Male n (%)	Female n (%)	Total
0–20	28 (3.34)	23 (4.33)	51
21–40	249 (29.74)	215 (40.56)	464
41–60	286 (34.16)	144 (27.16)	430
61–80	253 (30.22)	135 (25.47)	388
81–100	21 (2.5)	13 (2.45)	34
Total	837 (100)	530 (100)	1367

Table 2

Shows the distribution of study subjects based on their location (n = 1367).

Covid-19 positive patients admitted based on their location		
Location	No. of patients	%
Karnataka	1284	93.92
Kerala	65	4.75
Maharashtra	13	0.95
Others	5	0.35
Total	1367	100

(Others – Delhi – 3, Gujarat – 2).

hailed from various parts of Karnataka. A total of 1284 (93.92%) was admitted from various parts of Karnataka followed by 65 (4.75%) from parts of Kerala.

In [Table 3](#), A total of 1367 covid-19 positive patients were admitted. 906 (66.27%) patients were admitted in general ward and 461 (33.72%) patients in the special ward. Among the 906 patients in the general ward, 550 (60.7%) were males and 356 (39.29%) were females. Among the 461 patients admitted to the special ward 287 (62.25%) were males and 174 (37.74%) were females respectively.

In [Table 4](#), A total of 906 covid-19 positive patients were admitted to the general ward. 714 (78.8%) had utilized the scheme while 192 (21.19%) had not availed of the benefits of the scheme. Among the 714 patients who utilized the ABArK scheme 443 (62.04%) were men and 271 (37.95%) were women.

In [Table 5](#), The maximum admission of covid-19 patients in the general ward was 236 in May 2021. In that males were 121 (22%) and females were 115 (32.3%). The lowest was in March 2021 with 6 covid-19 positive patient's admission.

4. Discussion

The flagship program has been a boon to people from various economic backgrounds in this pandemic. The Government with this program is aiming to provide quality healthcare to all the poor and vulnerable families, thus reducing the economic burden and the catastrophic expenditures on healthcare. Ayushman Bharat scheme is meant to provide free access to healthcare through insurance mechanisms for socioeconomically deprived families. Patients and families impacted during the pandemic and needing hospital care have had to struggle with both accessing care and paying for it, especially in the second wave. All the patients admitted in the general ward with positive test reports were considered as eligible for availing the benefits of the Ayushman Bharat Arogya Karnataka (ABArK) scheme, in the state of Karnataka.

Table 3

Shows the Covid-19 positive patients utilization of ward, based on the gender (n = 1367).

Utilization of ward-based on gender			
Ward Type	Male n (%)	Female n (%)	Total (%)
General ward	550 (60.7)	356 (39.29)	906 (100)
Special ward	287 (62.25)	174 (37.74)	461 (100)

Table 4

Shows utilization of ABArK among the subjects who were eligible for the scheme (n = 906).

ABArK Utilization among all General ward patients (n = 906)	
Utilized	714 (78.8%)
Not utilized	192 (21.19%)
ABArK Utilized based on gender (n = 714)	
Gender	n (%)
Male	443 (62.04)
Female	271 (37.95)
Total	714 (100)

Table 5

Shows the admission of study subjects in general ward based on the month (n = 906).

General Ward					
Month	Male	%	Female	%	Total
Jul-2020	43	7.81	38	10.67	81
Aug-2020	82	14.9	54	15.16	136
Sep-2020	110	20	52	14.6	162
Oct-2020	86	15.63	32	8.98	118
Nov-2020	29	5.27	11	3.08	40
Dec-2020	21	3.81	4	1.12	25
Jan-2021	8	1.45	7	1.96	15
Feb-2021	14	2.54	13	3.65	27
Mar-2021	2	0.36	4	1.12	6
Apr-2021	34	6.18	26	7.3	60
May-2021	121	22	115	32.3	236
Total	550	100	356	100	906

This flagship program had been beneficial to many families who were benefitted from quality healthcare, reducing the economic burden and the catastrophic expenditures on healthcare.

In the present study, among the covid-19 patients, who were eligible subjects (patients with positive test report and admitted to general ward), had utilized the scheme was found to be 78.8% and was found to be significantly higher when compared to a report, that in Madhya Pradesh, only under 10% admitted COVID-19 patients could access benefits under the Ayushman Bharat scheme".¹⁰ Thus, the percentage of utilization of the scheme was found to be much higher in the private tertiary care hospital in Dakshin Kannada District.

In the present study, 192 covid-19 positive patients admitted in general ward were not able to utilize the benefits of ABArK scheme, as they were not able get authorized letter from the taluk/district hospital they belong and few were not aware of the scheme. These simple problems are to be addressed by the state and Central Government for further improvement in utilization of the scheme. A lower number of admissions were seen from January–March as the 1st wave slowed down in the month of November 2020. Rise in the number of cases were seen in the months of April & May 2021 with the start of 2nd wave of covid-19.

As per the study on assessing the impact of covid-19 on AB-PMJAY, AB-PMJAY had seen over 50% drop in utilization post the announcement of the first national lockdown on 23rd March 2020.¹⁰ In the current study, on contrary, the utilization was found to be higher in the tertiary care hospital during the pandemic. The utilization of the scheme was at 54% during late lockdown when compared to before lockdown (public - 49% and private - 61%). Maharashtra (23%), Assam (28%), Bihar (30%), Karnataka (40%), and Uttar Pradesh (41%) were the most affected states.¹¹ When compared with these, utilization of the Ayushman scheme in the tertiary care hospital during covid-19 is 78.8% in the present study.

As per the report of the National Health Authority (NHA), PM-JAY under lockdown: Evidence on Utilization Trends shows that the utilization of PM-JAY among women had dropped to 45% post-lockdown and that of men was found to be at around 55%.¹² In the current

study, the utilization of the scheme among women was 37.95% and that of men was found to be 62%.

In the current study, the younger population (21–40 years) utilizing the scheme was found to be slightly higher (33.9%) than the older population (61 and above age group) at 30.8% utilization. As per the report of National Health Authority, PM-JAY under lockdown: Evidence on Utilization Trends, shows that there was a slight decline in the share of the younger population in the utilization of PM-JAY (around 32%) and older population (around 21%) utilization.¹¹ The utilization of the scheme is found to be better in the private tertiary care hospital in terms of utilization among different age groups.

5. Conclusion

PM-JAY is one of the best health insurance schemes as a social security. The utilization of this scheme requires further improvement by creating awareness activities among general public. Encouraging people to utilize the scheme would help the families in reducing the out-of-pocket expenditure and burden in accessing the healthcare facility. Ayushman Bharat may be used for prevention and control strategies along with curative services for effective reduction in out-of-pocket expenses. This is one of the social security schemes from the Central Government of India, to the patients admitted to the general ward during this pandemic.

Limitations

It was a time bound, hospital record based study done in only one hospital in Coastal Karnataka. For better understanding of Ayushman Bharat health insurance scheme, multi-centric studies in different states is required.

Ethical consideration –

The study was approved by the Institutional ethical committee.

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Conflict of interest –

No conflict of interest.

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