Process evaluation of the adoption and use of standard treatment guidelines under AB PM-JAY

(Policy Brief)
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This report presents key findings from a study conducted on the ‘Process evaluation of the adoption and use of Standard Treatment Guidelines (STGs) Under PM-JAY’. The study provides an overview of the extent to which the recently launched STGs have been adopted by hospitals & their understanding and views on the same.

The WHO would like to acknowledge the Goa Institute of Management for their contribution to the execution of this study. The study team would also like to express their gratitude to officials and experts at the National Health Authority (NHA) and participating State Health Authorities (SHA). Additionally, the team would also like thank the functionaries of insurance companies and third-party administrators, as well as empaneled hospitals, for their cooperation in conducting this study.

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Introduction

Background: Since the launch of AB PM-JAY scheme in 2018, the National Health Authority (NHA) of India has introduced policy measures to address the issue of quality of care being provided by empaneled health-care providers (EHCPs). These include establishing a quality-based certification system for health-care facilities and paying a premium to accredited/certified health-care facilities. An earlier evaluation study indicated that while these measures were primarily driving improvements in the infrastructure and processes of health-care facilities, additional specific measures were needed to address the dimension of clinical care. As a continuing effort, NHA undertook the task of developing Standard Treatment Guidelines (STGs) for each treatment under its scope, to establish evidence-based clinical practice and to reduce the variation in care being offered by tens of thousands of health-care facilities across the country. Post-implementation of STGs, there was a need to assess early experiences and effects of this measure in the field, to obtain insights for strengthening the practice of STG-based medical care.

Purpose and objectives: The purpose of this study was to explore the early effects and experience of the users of STGs. This is the first study after STG implementation and was limited to mapping the experience of two regions. Objectives of the study were:

a) to evaluate the extent of adoption of the STGs by AB PM-JAY empaneled EHCPs;

b) to review the STG implementation process and identify impediments faced about the same;

c) to evaluate the effect of STG implementation on the claim’s management processes including fraud control; and

d) to analyze the early effect of standard treatment guidelines on the standard of care.

HIGHLIGHTS

- STGs are issued by AB PM-JAY is being used for scrutinizing claims and deciding outcome, which has compelled EHCPs to implement STG at the care provider level.

- With absence of a systematic effort to orient, encourage or engage care providers, the STG implementation in patient care seems to be forcibly driven by the claim-processing function.

- Specific expectations of each user act as enablers and barriers to implementing STGs.

- Physicians’ expectation of STGs to be flexible contradicts the claim adjudicators who expect STGs to be firm, which is possibly resulting in differences. In absence of a defined system or independent body to resolve differences, it manifests in dissatisfaction or conflicts.

- Reduction in claim rejection rate post STG implementation indicates approved medical documentation.

- STG based claim scrutiny could have likely restricted the ability of certain EHCPs to indulge in fraud or abuse of the AB PM-JAY scheme.

- The increase in ALOS post STC implementation indicates that more resources are being used for treating patients. However, since compulsion to adhere to ALOS in each case was reported, some unnecessary hospitalization could be a possibility.

- While there is an absolute increase in the volume of claim, proportion of claims by private EHCPs has markedly reduced, the reason for which needs further exploration.
Method and data

A mixed-method approach was adopted. To evaluate the first and the second objective, two regions were selected, the state of Madhya Pradesh (trust mode) and the Union Territories of Jammu and Kashmir (insurance mode). Primary qualitative data was collected through semi-structured in-depth interviews with a sample of the primary users of STGs. The users include, care providers (physicians and administrators of EHCPs), claim adjudicators (claim & pre-authorization processing doctors and managers of TPA/ISA and the insurance company) and governing officials (officials of state health agency). In total 35 physicians, of different specialities from 14 EHCPs, administrators and Ayushman Mitra (AMs) of each EHCP, claim and pre-processing doctors and managers from 4 TPAs/ISAs and 1 insurance company and officials from 2 SHAs were interviewed. To supplement the qualitative data, a structured self-reported survey of all physicians at EHCPs visited, was also conducted, in which a total of 98 usable responses were received. The survey collected responses from physicians on their level of awareness, level of utilization and feedback on STGs of AB PM-JAY.

To evaluate the effect on claim and clinical care, secondary quantitative data on clinical care from claims submitted by empaneled health-care providers (EHCPs) was analyzed. The data were taken from the duration of three months period before implementation of STG (pre-STG data) and three months period after implementation of STG (post-STG data). The data were sampled from 6 states, which include the two states from where primary data was collected and the remaining four were randomly selected. These states were UT of J&K, MP, Uttar Pradesh, Kerala, Tripura, Jharkhand and Chhattisgarh.

The data on clinical details of individual patients who took treatment under AB PM-JAY was not available to researchers. Instead, the clinical data consolidated by patients’ gender and age group were provided for each treatment package. A total of 1.76347 set of consolidated data was available for pre-STG implementation period and 8.43273 set of consolidated data was available for post-STG implementation period. Absence of individual level data also restricted our ability to apply statistical analysis to determine significance of differences between pre and post-STG measures.

The quantitative data were analyzed using a before and after comparison design. The measures indicating claim management and clinical care were calculated using descriptive statistics and compared between pre-STG and post-STG periods. Since STGs were rolled out nationwide, control samples were not available to eliminate the confounding factors that could have impacted the change in measure over time. This has limited the study’s ability to attribute the change in measure to the STG, as the effects of other factors on the change of measures cannot be adjusted.

Fig. 1 – RE-AIM framework (Source: www.re-aim.org)
**Conceptual framework:** To understand and assess the adoption of the Standard Treatment Guidelines, the RE-AIM framework was used as a concept (Fig. 1). This methodology helps inform prospective and iterative research aimed at determining the possible implementability of evidence-based health-care interventions. The framework is based on five dimensions - reach, effectiveness, adoption, implementation, and maintenance.1

**Ethical consideration:** Ethical considerations were followed during data collection and analysis. Approval of the Institutional Review Board (IRB) was obtained for ethics, before data collection. Each respondent was informed about the purpose of the study and their verbal consent was taken before initiating interviews. The respondents were explicitly informed that their identity will be kept confidential and their responses will be used only for this study. Specific verbal permission was also taken for audio recording of the interviews. Wherever permission was not given, audio recording was not done and only copious notes were taken. The secondary data were received without identification details of the patient.

**Findings**

**Reach of STGs:** The knowledge about STGs under AB PM-JAY, among care providers - administrators and physicians of EHCPs - vary between the two study regions. Health-care providers in J&K, under the insurance mode were observed to be substantially better informed than their counterparts in MP, under trust mode. In both regions, the awareness of STGs was lacking more in public EHCPs and their physicians compared to private EHCPs. A systematic approach to promoting the uptake of STGs amongst care providers was lacking in both regions studied.

Irrespective of the level of awareness of care providers, in both regions STGs were integrated into the transaction management system and were used by the claim adjudicators for processing pre-authorizations and claims management. As a result, EHCPs were required to provide mandatory clinical documents while submitting claims, which compelled them to comply with the STGs. Fig. 2 illustrate STG implementation at treatment and claim processing levels.

**Users’ perspective:** All key users involved in the implementation of STGs were in general agreement about the positive impact of STGs

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**Fig. 2 - Flowchart explaining STG implementation**
on standardizing clinical quality, transparency in claim and preauthorization processing and its ability to control fraudulent behaviour. However, each user type reported positive and negative experiences of using STG.

Positives:
- For physicians, it served as a reference document, reduced subjectivity and provided clarity on clinical matters.
- For EHCPs it brought transparency and clarity over clinical expectations and points on which claims will be scrutinized.
- For TPA/ISA it benefited by streamlining the claim management process and helped in better documentation and record keeping.

Negatives:
- Restrictions in treatment decisions, irrational expectations and increased paperwork as experienced by doctors.
- Increased cost of care, irrational expectations, misuse of STG for claim delay and rejections are the key negatives shared by administrators of EHCPs.
- Ambiguity in some STGs and operational issues were the limitations faced by TPAs.

Based on the experiences and perspectives shared by users, their expectations from STG which manifest as enablers and barriers for uptake have been identified (Table 1). Fig. 3 represents the overlap between enabler and barrier elements between the user types.

A contradiction was observed between care providers and claim adjudicators for the level of flexibility STG should offer. In the view of care providers, STG should be broad and flexible serving only as a reference document, without restricting their clinical autonomy. On the other hand, in the opinion of claim adjudicators, discretion and subjectivity make STGs vulnerable

<table>
<thead>
<tr>
<th>User group</th>
<th>Enablers</th>
<th>Barriers</th>
</tr>
</thead>
</table>
| Physicians      | • STGs are broad in scope, evidence-based and updated with the latest medical practice.  
                    • Ability of guidelines to serve as a reference document to make appropriate clinical decisions. | • STGs restrict their clinical freedom or autonomy in decision making.  
                    • Perception of irrational or irrelevant content in STGs.  
                    • STGs not updated or not factoring local requirements.  
                    • Increased documentation workload. |
| Administrators of EHCPs | • The clarity over clinical requirements for each case.  
                    • Transparency over the points on which claims will be scrutinized. | • Perception of STGs being used unfairly for rejecting claims or delaying payment.  
                    • Complying with STGs leads to an increase in the cost of care provision.  
                    • STG increasing the workload for getting claims processed. |
| TPA/ISA/Insurer | • Clarity over points to be scrutinized in a claim.  
                    • Higher level of objectivity in guidelines and no or less flexibility or room for discretion. | • Ambiguity and subjectivity in STGs.  
                    • STGs are too flexible or allow discretion. |

Table 1: Enablers and barriers to adoption of STG by its users
to misuse and can stimulate fraudulent behaviors, which can be difficult to control.

It is to be noted that, while STGs under AB PM-JAY were designed to serve only as a reference document and not to surpass the clinical decisions made by physicians, in practice, the STG-based claim processing was observed to be indirectly influencing clinical decision-making.

Effect on claims and patient care: To explore the effects that STGs could have had on claim processing and patient care, we compared indicative measures between pre- and post-STG periods, using clinical data from claims of five states and one union territory.

Claim rejection rate: The data shows that the claim rejection rate dropped by a remarkable 5% after STG implementation. Public EHCPs showed highest reduction in claim rejection at 9.25%, while private EHCPs’ rejection rate reduced by 2.57%. Within private EHCPs, only private-for-profit EHCPs showed a reduction while non-for-profit EHCP rejection slightly increased (Table 2).

Table 2: Claim amount rejection as per EHCP type - pre- and post-STG implementation

<table>
<thead>
<tr>
<th>EHCP type</th>
<th>Pre-STG</th>
<th>Post-STG</th>
</tr>
</thead>
<tbody>
<tr>
<td>All EHCPs</td>
<td>13.48%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Public</td>
<td>18.65%</td>
<td>9.4%</td>
</tr>
<tr>
<td>Private (all)</td>
<td>8.67%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Private not for profit</td>
<td>5.62%</td>
<td>6.67%</td>
</tr>
<tr>
<td>Private for-profit</td>
<td>9.53%</td>
<td>5.92%</td>
</tr>
</tbody>
</table>

Speciality-wise claim rejection rates of specialities that are commonly used also show that in most specialities the claim rejection rates have reduced after STG implementation. Compared to surgical, medical discipline specialities showed a noticeable reduction in claim rejection rate. Obstetrics & Gynecology, Pediatric Surgery,
Radiation Oncology, Neurosurgery and Oral and Maxillofacial Surgery are the few specialities that showed an increase in rejection rates. (Table 3)

Table 3: Speciality-wise rejection rate for commonly used specialities

<table>
<thead>
<tr>
<th>Specialities</th>
<th>Pre-STG</th>
<th>Post-STG</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medicine</td>
<td>21.35%</td>
<td>13.67%</td>
</tr>
<tr>
<td>General Surgical</td>
<td>8.05%</td>
<td>6.38%</td>
</tr>
<tr>
<td>Obs &amp; Gyn</td>
<td>2.90%</td>
<td>4.70%</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>11.69%</td>
<td>5.34%</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>2.93%</td>
<td>2.06%</td>
</tr>
<tr>
<td>Otorhinolaryngology</td>
<td>14.62%</td>
<td>6.55%</td>
</tr>
<tr>
<td>Paediatric medical</td>
<td>14.42%</td>
<td>8.18%</td>
</tr>
<tr>
<td>Paediatric surgery</td>
<td>10.52%</td>
<td>12.36%</td>
</tr>
<tr>
<td>Neonatal</td>
<td>17.05%</td>
<td>4.22%</td>
</tr>
<tr>
<td>Interventional Neuroradiology</td>
<td>12.70%</td>
<td>21.66%</td>
</tr>
<tr>
<td>Surgical Oncology</td>
<td>11.02%</td>
<td>5.14%</td>
</tr>
<tr>
<td>Radiation Oncology</td>
<td>15.43%</td>
<td>21.49%</td>
</tr>
<tr>
<td>Medical Oncology</td>
<td>16.04%</td>
<td>1.70%</td>
</tr>
<tr>
<td>Oral/Maxillofacial Surgery</td>
<td>9.33%</td>
<td>11.77%</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>10.80%</td>
<td>11.17%</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>13.81%</td>
<td>9.31%</td>
</tr>
<tr>
<td>Urology</td>
<td>6.39%</td>
<td>5%</td>
</tr>
<tr>
<td>CTVS</td>
<td>9.50%</td>
<td>2.56%</td>
</tr>
<tr>
<td>Cardiology</td>
<td>15.11%</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

Average length of stay (ALOS): Post STG, a remarkable increase in ALOS is seen on an overall basis, with Public EHCPs’ ALOS increasing by 73% and private for-profit EHCPs’ ALOS increasing by 77% (Table 4). The ALOS has increased in most specialities in post STG period, with General surgery, General medicine and Medical Oncology showing the steepest increase. (Table 5)

Table 4: ALOS as per EHCP type

<table>
<thead>
<tr>
<th>EHCP type</th>
<th>Pre-STG</th>
<th>Post-STG</th>
</tr>
</thead>
<tbody>
<tr>
<td>All EHCPs</td>
<td>2.77</td>
<td>4.24</td>
</tr>
<tr>
<td>Public</td>
<td>3.3</td>
<td>5.72</td>
</tr>
<tr>
<td>All Private</td>
<td>2.14</td>
<td>3.47</td>
</tr>
<tr>
<td>Private not-for-profit</td>
<td>3.46</td>
<td>4.83</td>
</tr>
<tr>
<td>Private for-profit</td>
<td>1.79</td>
<td>3.17</td>
</tr>
</tbody>
</table>

Table 5: Speciality-wise ALOS

<table>
<thead>
<tr>
<th>Specialities</th>
<th>Pre-STG</th>
<th>Post-STG</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medicine</td>
<td>1.86</td>
<td>6.09</td>
</tr>
<tr>
<td>General Surgical</td>
<td>1.05</td>
<td>4.81</td>
</tr>
<tr>
<td>Obs &amp; Gyn</td>
<td>2.28</td>
<td>3.67</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>5.26</td>
<td>5.51</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>0.85</td>
<td>1.56</td>
</tr>
<tr>
<td>Otorhinolaryngology</td>
<td>5.18</td>
<td>4.99</td>
</tr>
<tr>
<td>Paediatric medical</td>
<td>5.45</td>
<td>5.82</td>
</tr>
<tr>
<td>Paediatric surgery</td>
<td>5.21</td>
<td>6.23</td>
</tr>
<tr>
<td>Neonatal</td>
<td>5.93</td>
<td>6.58</td>
</tr>
<tr>
<td>Interventional Neuroradiology</td>
<td>9.93</td>
<td>7.67</td>
</tr>
<tr>
<td>Surgical Oncology</td>
<td>1.2</td>
<td>4.63</td>
</tr>
<tr>
<td>Radiation Oncology</td>
<td>10.45</td>
<td>10.18</td>
</tr>
<tr>
<td>Medical Oncology</td>
<td>5.27</td>
<td>3.74</td>
</tr>
<tr>
<td>Oral/Maxillofacial Surgery</td>
<td>9.44</td>
<td>10.91</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>3.13</td>
<td>3.14</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>1.86</td>
<td>6.09</td>
</tr>
<tr>
<td>Urology</td>
<td>1.05</td>
<td>4.81</td>
</tr>
<tr>
<td>CTVS</td>
<td>2.28</td>
<td>3.67</td>
</tr>
<tr>
<td>Cardiology</td>
<td>5.26</td>
<td>5.51</td>
</tr>
</tbody>
</table>

Public and private EHCP participation in AB PM-JAY: While the absolute claim amount has increased for both public and private EHCPs, the data indicates that the proportion of claims being submitted by public EHCPs has significantly increased while that by private EHCPs has decreased. The proportion of claims by private for-profit EHCPs has reduced even more. (Table 6)

Table 6: Proportion of claims by EHCP type

<table>
<thead>
<tr>
<th>EHCP type</th>
<th>Pre-STG</th>
<th>Post-STG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>45%</td>
<td>63%</td>
</tr>
<tr>
<td>All Private</td>
<td>55%</td>
<td>37%</td>
</tr>
<tr>
<td>Private not-for-profit</td>
<td>12%</td>
<td>8%</td>
</tr>
<tr>
<td>Private for-profit</td>
<td>43%</td>
<td>29%</td>
</tr>
</tbody>
</table>
Discussion

In both the regions studied, there was an absence of a systematic approach to orient and encourage EHCPs and their physicians for STG implementation. Still, there was a stark difference in the level of awareness about STGs between care providers in MP and J&K. This is suggestive of external environmental factors that could be at play. J&K under insurance mode and having a recent experience of high claim ratio seems to have been using STGs rigorously for scrutinizing claims and deciding outcomes. Stringent verification appears to have resulted in EHCPs being over-cautious in meeting STG requirements and as a result, the administrators and ultimately physicians appear to have been compelled to make themselves aware of the STGs and ensure compliance. While this has resulted in increased awareness and compliance, it is primarily due to compulsion and raises concern over fidelity in long-term, as contextual factors have been identified as significant in determining the appropriate implementation of treatment guidelines.¹

The study observed differences in the interpretation of STGs by care providers and claim adjudicators. This could either be due to lack of clarity or misinterpretation, factors that have been identified in a few systematic studies as a barrier to the effective implementation of STGs.¹⁻³ There is no defined system or independent body to clarify interpretation, in the absence of which, the differences manifest in form of dissatisfaction or conflict. A relevant point to note here is that the objective of STG as outlined in the STG manual was to guide claim processing and not to influence clinical decision-making.⁴ However, in practice it was observed that the STG-based pre-auth and claim approvals are casting a major influence on the clinical decision-making of physicians.

Key concerns raised by physicians concerning STGs are restrictiveness in autonomy for clinical decision-making, irrational requirements and increased workload. Restrictiveness, actual or perceived, in the clinical decision, has been reported as a significant barrier to adoption or adherence of STG by physicians, in various other studies. A study in the Indian context identified ‘fear of losing physician’s autonomy’ as a major deterrent in physicians voluntarily adopting STGs.⁷ Another study focused on mapping physicians’ interests reported that most physicians are averse to accepting any change in the system that limits their autonomy in making clinical guidelines.⁸ Irrational requirements as a deterrent to adhere to STGs have also been reported in the literature.⁹⁻¹⁰ Concerns over increased documentation workload due to STG as a barrier to implementation seem logical in most health-care facilities in India, given the high amount of workload that is usually seen. Schemes like AB PM-JAY have the potential to significantly increase the number of patients accessing treatment, while the number of health-care professionals remains scarce. The overwork situation is even more pronounced in public EHCPs. Thus, all three concerns identified through qualitative interviews of physicians look reasonable.

Reduction in the proportion of claims by private EHCPs after implementation of STGs is a concerning issue and needs to be monitored over time. In qualitative interviews, concerns about an increase in cost for complying with STG have been raised by administrators of EHCPs. There can be two aspects to this. First, in absence of STGs, EHCPs may have had the opportunity to provide clinical care at as less cost as possible, which could also mean compromise on clinical quality. Second, as has been raised by several administrators and physicians, some irrational requirements, such as mandating ALOS for each patient have been enforced due to the claim management process, which could have added cost to EHCPs, without adding value to clinical quality. While compromise in clinical quality for curtailing cost cannot be allowed, the cost incurred due to the second aspect needs to be curtailed.

Another concern raised by EHCP administrators is the perception of insurer misusing the STGs for claim rejection or payment delay. The trust deficit
is likely due to somewhat contradicting interests of EHCPs and insurer, and is an external macro factor. As suggested in a study on micro, meso and macro barriers, factors that are external to STGs are also crucial in determining how well the STGs are implemented.²

Overall reduction in rejection rate is indicative of improvement in medical record documentation. With implementation of STG, for each treatment package, specific medical documents have been listed, which is mandatory for claiming EHCP to upload, without which the system doesn’t allow for the claim submission process to be completed. This has compelled the EHCPs to furnish necessary documents and evidence for submitting claims, indirectly requiring them to carry out medical procedures as per STG. With all documents in place, the claim rejection rate is expectedly reduced.

The reduction in claim rejection rate of Public EHCP is remarkable. Pre-STG the claim rejection rate of Public EHCPs was noticeably higher, which could be due to inadequate submission of claim documents. With STGs mandating document submission, this lacuna would have got addressed and an improvement in the rate of claim approval is seen. In our qualitative interviews, a couple of public EHCPs did mention that they have witnessed a significant reduction in rejection rates, post-STG implementation.

An increase in ALOS across the board after STG implementation is a noteworthy finding. In the pre-STG period reference for treatment-specific reference length of stay was not available. The need for being cost-efficient, especially in private EHCPs, could be a reason for lower ALOS in the pre-STG period. The EHCPs commonly have complaints that the package rates are low and they need to see if this will be viable in the long run. With the implementation of STGs a reference for the optimal length of stay was available for each treatment package. The reference could have influenced the length of stay of each patient in the hospital. In qualitative interviews, we observed that TPAs have used the ALOS referred to in STG as one of the bases for deciding claim settlement. For example, if the ALOS for a procedure stated 3 days and the patient was discharged in 2 days the case was rejected. This could have further influenced EHCPs to match the length of stay of the patients to what is stated in STG. Several physicians and administrators of EHCPs complained that they are being compelled to unnecessarily hospitalize the patient just to match the ALOS. This is detrimental to the quality of care, as by unnecessarily staying in hospital the patient is exposed to the possibility of health-care-associated infections. Patient satisfaction also suffers, when they realize that their stay is unnecessary.

The findings on enablers and barriers to uptake of STG by each user group indicate that at least one-factor conflicts between care providers and claim adjudicators. While high objectivity and less flexibility in STGs serve the need of claim adjudicator well, it acts as a barrier for physicians.

In both regions, systematic efforts to disseminate STG and encourage health-care professionals to use the guidelines were found lacking. However, due to the integration of STG into TMS, adherence to STGs is indirectly mandated. No such system for implementing STGs has been reported elsewhere and long-term implications of this need to be observed. Claim scrutiny enforcing compliance to STG appears to be compulsive rather than voluntary. The fidelity of STG compliance is to be examined. This can be done through a robust medical audit of a random sample of cases aimed at measuring the level of compliance with STGs. Past studies on the implementation of STGs have recommended that a well-drawn strategy with detailed instruction is essential to implement STGs.²⁵,²⁶

Conclusion

STGs issued by AB PM-JAY are being used as a checklist for scrutinizing clinical components of claims and deciding claim processing outcomes. This in turn has compelled EHCPs to comply with the clinical requirements outlined in STG documents. There was an absence of a systematic approach to directly orient and
encourage physicians for STG implementation. Any system or platform to engage the users of STGs for incorporating their feedback was also lacking. Due to this, the implementation of STG at the care provider level appears to be forced in nature. The level of awareness and compliance to STG by care providers is likely to be determined by the level of stringency with which STGs are used for the claim processing.

There are specific expectations that are acting as enablers or barriers for different users of STGs. Unambiguity and transparency in STGs are common expectations by all users, less documentation intensive and rationality are expected by physicians and administrators of EHCPs, while administrators of EHCPs also expect STGs to be cost-effective in implementation. Physicians also expect STGs to be flexible and not limit their autonomy in clinical decisions, which contradicts the claim adjudicators who expect STGs to be firm and not have much room for discretion.

The contradiction is possibly resulting in differences between care providers and claim adjudicators, like in the interpretation of some specific elements of STGs. There is no defined system or independent body to resolve differences or clarify interpretation, in the absence of which, the differences manifest in form of dissatisfaction or occasional conflicts.

Reduction in claim rejection rate post-STG implementation indicates improved medical documentation and record keeping, which is a positive effect of STG. STG-based claim scrutiny could have likely restricted the ability of certain EHCPs to indulge in fraud or abuse of the AB PM-JAY scheme.

The increase in ALOS post-STG implementation indicates that more resources are being used for treating patients. However, as indicated by several EHCPs, some part of the increase could also be unnecessary and result in a compulsion on them to match the hospitalization days of each patient with the ALOS stated in STG. Unnecessary stays can lead to reduced patient satisfaction and could be detrimental to patient safety as it unnecessarily increases their exposure to healthcare-associated infection.

While there is an increase in the number of claims in absolute terms, the proportion of claims by private EHCPs has markedly reduced, the reason for which needs further exploration.

In absence of requisite individual patient-level data effect on clinical care outcomes and claim processing efficiency could not be assessed.

**Recommendations**

The benefits of using standard and evidence-based guidelines for treatment are well recognized globally and there is a clear movement in most countries to adopt and promote STG-based medical care. The STG system established under PMJAY is a move in the right direction and this study recommends that it must be continued and further strengthened by gradually addressing the demerits.

1. **Clarifying the role of STGs in clinical decision-making:** The STG documents and the manual booklet states that STGs doesn’t provide any guidance on clinical and therapeutic management of patient and hospitals and physicians can refer to other relevant material and use their professional judgment for clinical management of patients. However, in practice, due to claim approval subjected to compliance to STG, the EHCPs and physicians are being indirectly compelled to use STG as a basis for the therapeutic management of patients. This is resulting in an incongruency and needs to be reconciled, by clarifying the purpose of STG to care providers and claim adjudicators.

A well-recognized purpose of STG is to assist medical practitioners in making decisions for specific clinical episodes. It is recommended that the STGs of AB PM-JAY recognize this and encourage care providers to use it to support clinical decision-making.
The TPA/ISA and Insurance company who adjudicate the claim, need to be sensitized about the fact that STGs are not prescriptive but only a reference for physicians and justified deviation from the guidelines should not be a reason for rejection of claims.

2. **An independent body to clarify STG interpretation:** Treatment guidelines can often have interpretational differences, and the same was observed in this study. Since care providers and claim adjudicators have partly conflicting interests, the interpretational differences between them are difficult to be resolved mutually without leading to dissatisfaction. An independent body or a system for resolving differences by offering correct interpretation could be useful to avoid conflicts and dissatisfaction. Such a body can also issue clarifications on matters that are frequent or common.

3. **Systematic strengthening STGs:** A system for periodic updating of STGs need to be there in place, not only incorporating the new developments in medical science, but also to factor in the clinical feedback resulting from implementing STGs. Reducing ambiguity, if any, in the contents of STGs should be a part of the updating process. For this, a platform for engaging administrators and physicians of EHCPs and CPD, PPD of TPA and ISA can be created for discussing and clarifying doubts and taking their feedback for improvement of STGs.

4. **System for recognizing deviations from STG:** Conceptually, the STGs under AB PM-JAY are not binding on physicians; but, in practice, physicians experienced or feared clinical decision-making restrictions. This must be addressed for patients to receive treatment based on their specific clinical needs. A mechanism that allows physicians to deviate from the STG, if necessary, with clinical justification must be developed. In the early phases of the STG, such a system will be crucial, as it is difficult for the STG to account for the country’s different requirements. The agencies that handle claims must consider clinically justified deviations from STG and process claims accordingly. As the STG documents become more robust, exhaustive, and developed, the need for deviation should diminish.

5. **Tracking deviations:** The data on the type and frequency of deviations that are happening in each STG should be tracked and analyzed to understand specific modifications or incorporations required in STG. The data will also serve as feedback on STG compliance that can be used to monitor and improve implementation effectiveness. In addition, the data on deviations can also help in finetuning the algorithm of groupers for DRGs and the template for the costing of medical procedures.

6. **Strategy to encourage care providers** - While claim processing agencies - TPAs and insurance company seems to have adopted STG well for claim management functions, the study recommends that dedicated efforts must be made to onboard the EHCPs and physicians. This is essential as, at the most unit level, it is the treating physician who will implement STG. Some of the suggestions in this regard are:

   - A well-planned system and approach to reach out to all physicians and administrators of EHCPs for creating awareness and encouraging them to implement STG. There could be regular updates that go to all AB PM-JAY treating doctors on the latest STGs under their specialty.

   - Established implementation frameworks such as CFIR or PARIHS should be used to develop plans and instructions for the appropriate implementation of STGs.

   - Organizing periodic orientation sessions, CME, or meetings with EHCPs, physicians, and TPA doctors for clarifying STG requirements and doubts, if any alongside training.
• Making the guidelines easily accessible to physicians. The STGs can be published as booklets that are readily available to the physicians or even through an app where the physicians have access to the latest updated STGs.

• A system and platform for engaging care providers - physicians and administrators of EHCPs - can be created to capture their feedback on specific improvements required in STGs. These can be taken into consideration, depending upon their merit, relevance, and frequency, while updating STGs. Such a platform can be made comprehensive by extending it to the doctors at TPAs and ISAs.

7. Strengthening enablers and eliminating barriers: The study identified factors that act as enablers or barriers for each user type involved in STG implementation. It is recommended that enablers be strengthened and barriers are eliminated. A challenge in this would be to address the factor that conflicts between care providers and claim adjudicators. Striking a balance could help address the challenge.

8. Monitoring variance in clinical quality: A key objective of STG is to standardize clinical care, which should ideally result in a reduction of variation in measures indicative of clinical outcomes. It is recommended that key clinical quality measures are monitored for variation to assess how well this objective is being met. As an illustration, some of the measures that can be tracked and monitored are (all measures to be treatment/package-specific)
  • Average length of stay
  • Re-admission rate
  • Patient satisfaction with clinical outcome and service quality

9. Monitoring variance in claim processing: Another key objective of STG is to bring objectivity and transparency to claim and pre-authorization processing. It is recommended that key indicators of claim and pre-authorization processing are monitored for variance. For example
  • Turn-around time for Pre-authorization and claim approval
  • Percentage of claims where a query is raised
  • Variation in query raised
  • Variation in reasons for rejection
  • All measures should be treatment package specific.

10. Future study: As explained in the limitations, this study explored the very early experience of the users of STG on its implementation, which most likely will evolve. As more EHCPs and physicians use STGs and a greater number of cases are treated using STGs additional experiences will be created. The benefits and concerns identified as of now may change and newer benefits and concerns may be realized. Accordingly, the strategy for the purposeful sustainability of STGs will need modifications. To ensure that policy and strategy are time relevant, it is recommended that a similar study be conducted in 3 to 5 years. The future study should be broad-based, covering a greater number of states and should also explore the effects of factors such as Trust or Insurance mode and EHCP type.

In addition, the reduction of the proportion of claims by private EHCPs needs tracking. A study to assess the impact of STG on the cost of care should be done to understand how it might be affecting the private EHCPs business.

Limitations

The following limitations of the study must be considered while referring to the conclusion and recommendations.

1. Primary data on the experiences and perspective of users of STG were collected from only two regions and was not randomly
selected. Out of them, in one region the awareness about AB PM-JAY STGs amongst health-care providers was very limited and actual experience of STG implementation was largely received from one region. Thus, the findings presented in this study may not be generalized but referred to only as indicative. A study incorporating more states will be required to have a nationwide generalized finding of STGs effectiveness.

2. The STGs were recently rolled out in a phased manner. Several EHCPs and physicians had very little experience in using STGs. With time, the system and users are likely to adapt and find ways to mitigate the current issues and concerns. Some of the findings of the study may not be relevant in the future and longitudinal studies will be required.

3. One factor that could impact the extent and nature of STG implementation is the mode (Trust or Insurance) in which the state is implementing AB PM-JAY. Hypothetically, compared to a state in Trust mode, the insurance mode state should exhibit a higher degree of stringency in STG compliance, thus further restricting the flexibility of care providers, to keep financial risks low. In our study also, we found J&K, operating under the Insurance model, using STG with a higher level of stringency in claim management, compared to MP, which is in Trust mode. However, since the comparison is only between one state on each side, the study refrains from making any conclusion in this regard.
References


