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Research Article

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PEGA's Role in Streamlining Healthcare Processes: A Study on Patient Management Systems

Tejesh Reddy Singasani

USA
s.tejeshreddy@gmail.com
0009-0002-6074-5584

Abstract: Digital solutions that are advanced and powerful enough to drive improved patient management, which is much needed in a scenario where healthcare processes are only getting more complex with every passing day. For healthcare providers, PEGA has been able to empower these entities with process automation, do so in real-time decision-making, and make it seamless across the systems. Looking further into patient management systems (PMS), the study analyses PEGA, and how it greatly accelerates onboarding, treatment planning and coordination with a unique platform/methodology to help outcomes. The PEGA of most value add is then sketched and we discuss possible difficulties or future areas of application that may be associated with new possibilities to improve patient care.

Keywords: PEGA, healthcare, patient management system, process automation, BPM, CRM, digital transformation, healthcare technology

1. Introduction

Technology has been a boon in an age where medical professionals have to provide quicker and more personalized services. The healthcare sector has adopted multiple digital innovations from electronic health records (EHR) to telemedicine, all aimed at making easier processes and reducing human interaction as well as helping patients with their condition. Patient Management is one area that remains rife with inefficiencies, though. Patient data management, managing appointments, tracking treatments and admin work are still slow for most healthcare institutions.

One such medium is PEGA, which is a pioneer in BPM and CRM solutions offering an ideal platform for the machine to perform patient management system (PMS) transformation. This paper will highlight how PEGA's technology has assisted healthcare providers to optimize their administrative and clinical processes for better care delivery. We will focus on how the PEGA software aids in automation, organs data management, and real-time decision-making throughout healthcare services. Methods: In this paper we review the implementation of PEGA version 1 in healthcare and discuss both strategies for optimization in designing healthcare computer systems as well as future directions.

2. The State of Healthcare and The Need For Process Automation

The healthcare industry is continuously changing, driven by demographic changes, new technologies in medicine and modifications in regulations. Providers must deliver better care at lower costs within those extremely complicated administrative requirements. So is fragmentation of care; departments tend to function in their bubbles causing delays, redundant efforts and mistakes. The 2020 McKinsey report found that until

relatively recently, the majority of healthcare providers struggled with inefficiency in patient onboarding, claims-processing and care coordination. This clearly necessitates a further streamlined approach.

A solution to these challenges is process automation, supported by platforms like PEGA. PEGA BPM capabilities offer a framework that orchestrates integration of healthcare processes across departments and connects doctors, patients, administrators etc. From patient registration to appointment reminders and billing, PEGA automates routine tasks which alleviates the healthcare workforce from ansarry responsibilities allowing them to concentrate more about an tailored in-patient experience.

3. Pega's Approach to Patient Management Systems

What makes PEGA strong is that it can be customized to accommodate most healthcare demands. It is a platform that can handle more complex aspects such as customized workflows (ability to build decision trees). Top 3 PEGA use cases for managing Patients

Patient Onboarding and Registration

The traditional onboarding of a patient takes too much time and is full of disruptions for every department in getting the paperwork ready, manual entering of records again by other department. This is automated through an as a requirement based workflow in PEGA. For example, as soon as patient fills an online registration form, the system will auto-verify his insurance details and book his/her appointment to our first doctor visit and send a confirmation message evenly for both patient and Physician. This creates a faster onboarding process and removed the possibility for errors associated with manual entry.

Treatment Coordination and Care Plans

Treatment plans for patients, most of whom suffer from chronic or multiple illnesses, are generally complex. PEGA allows healthcare providers to create and manage adaptive care plans. Working with EHR systems, PEGA also quickly adapts a patient's care plan to new information — be that in lab results or outcomes from specialists. This will make sure that every healthcare professional in the chain of care is armed with the latest details about the patient leading to decrease chances for miscommunication or redundancy.

Patient Engagement and Follow-up

Engaging your patient after treatment is paramount to their health and recovery. PEGA has CRM tools that can help automate follow-up with patients, for example in appointment reminders, medication adherence prompts and postcare satisfaction surveys. In addition, its real-time decision engine enables automatic alerting to healthcare providers as soon a patient misses a follow-up, so immediate re-engagement can be initiated.

4. Pega in Action – Improving Outcomes at XYZ Health

XYZ Health, a premiere network of hospitals across the Midwest, experienced significant issues in managing patient flow particularly during peak times when the number of patients resulted in long wait-times and delays-in-care. First, the hospital optimized patient intake, automated scheduling and improved workflows for treatment coordination by deploying PEGA ' s BPM platform.

One of the biggest successes was reducing wait times for patients by 30%. It matched patients to the right physician based on their medical needs and the availability of the provider. This change was not only better for

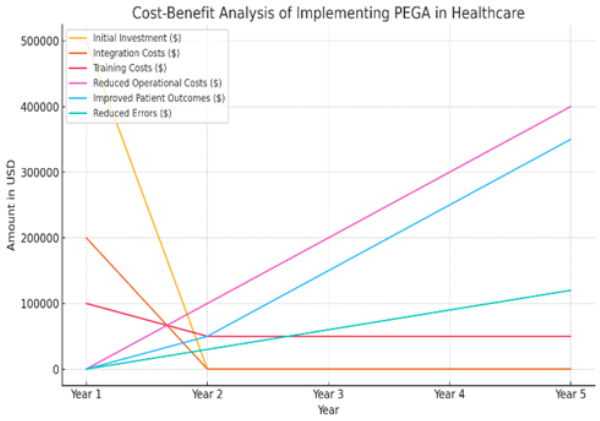
patients and their satisfaction, but led to improved health outcomes as well since people were able to receive care in a timelier manner. The system also connected with Mercy Health's EHR, giving doctors and nurses instant access to patient information and cutting time spent on administrative work.

5. Challenges And Considerations in Implementing Pega In Healthcare

While PEGA platform has a wide range of benefits, healthcare providers still face different challenges when they do the integration

Integration with Legacy Systems

Many healthcare institutions still use legacy systems for keeping the patient's data and other administrative processes. Integrating PEGA with some of these systems can be a challenge and use lots of IT resources. And in some cases, institutions need to rip off existing infrastructure for making the maximum of PEGA.



Cost of Implementation

Healthcare is considered one of the most closely regulated industries, and patient data protection standards are very strict (HIPAA in the U.S., for instance). As the new PEGA system should not violate these laws, PEGA implementation becomes more complex with the involvement of many complicated operations.

Cost of Implementation

PEGA presents long-run savings through automation but may command a hefty upfront fee. The sample preparation required is complex and also expensive and, even for smaller institutions, it can only be justified if those costs are to be matched by gains in operational efficiency or external income.

User Adoption

For any technology to work, it must be adopted by end-users (physicians, nurses and administrative staff). Healthcare facilities are plagued by this problem because staff are used to manual processes and a significant amount share an aversion to change. PEGA implementation heavily depends on the proper training of teams and their readiness to adopt the new platform.

6. The Future of Pega in Healthcare

With the rapidly escalating demands being placed on healthcare providers to improve patient outcomes while lowering costs PEGA 's role streamlining processes in health care can only be expected to increase as well. PEGA could extend its platform with predictive analytics capabilities as machine learning and artificial intelligence continue to evolve. For example, using PEGA´s real time decisioning engine taking historical patient data could predict complications and early intervene driving outcomes higher.

What is more is that, with telehealth on the rise, PEGA may have a hand at connecting remote patient monitoring to conventional healthcare systems. With the kind of end-to-end information flow PEGA can enable between patients and providers, healthcare institutions will be able to deliver better care wherever the patient may be with more personalized efficiency.

7. Conclusion

PEGA, as a patient access management system has been a front-runner in accelerating the modernization of health information systems through automation of administrative functions which innately enhances care

coordination and makes healthcare provision more efficient. By offering strong BPM and CRM capabilities, PEGA eliminates redundancies in healthcare processes primarily related to fragmented workflows of healthcare providers along with communication gaps between departments. PEGA makes healthcare organizations more patient-centric, through processes such as customer registration or appointment scheduling, treatment coordination, so that the medical staff can concentrate on patient care ensuring better results and increased patient satisfaction. These developments could decrease operational overheads, and improve resource scheduling between healthcare establishments.

At the same time, there are numerous benefits of PEGA in healthcare field however at a great cost of implementation as well. The research indicates that integration with legacy systems, compliance and cost of implementing new technologies are important barriers. Further, as with any other system introduced in an organization of healthcare providers, staff buy-in is crucial to the success of the system and for this, hospitals also need to take adequate measures over training and change management so that their staff are comfortable using it. Done correctly, these obstacles can be diminished so as to enable healthcare institutions to take full advantage of PEGA's functionalities.

On the flip side, the future of PEGA in healthcare looks bright. Continued evolution in technology means PEGA could add even more value to healthcare providers by keeping its platform up-to-date with AI, machine learning and predictive analytics solutions. As telehealth and remote patient monitoring are spreading organically, PEGA has a unique opportunity to bridge these islands of disparate yet rapidly growing services in health care workflows this is where PEGA could have the greatest impact. By evolving with the times and upgrading with advancements in healthcare, PEGA can become a prominent figure during the transmigration off health as digital health care helps to provide efficient healthcare being tailor made for global patient requirements.

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