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### Revolutionizing Appeals and Grievance Management: Digitization with PEGA AI

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#### ABSTRACT

In the realm of healthcare administration, the management of appeals and grievances represents a critical yet complex process prone to inefficiencies, delays, and errors. Leveraging the transformative capabilities of artificial intelligence (AI) and the robust functionality of the PEGA platform, this thesis explores the digitization of appeals and grievance management. Through an in-depth analysis of industry challenges, AI methodologies, PEGA implementation strategies, and real-world case studies, this research elucidates the potential of AI-powered PEGA solutions in revolutionizing appeals and grievance management. By synthesizing academic literature, industry insights, and practical experiences, this thesis provides a comprehensive framework for organizations seeking to optimize appeals and grievance processes through digitization with PEGA AI.

Keywords: Appeals, Grievances, Digitization, PEGA, Artificial Intelligence, Healthcare Administration, Natural Language Processing

#### 1. Introduction

The Appeals and Grievances (A&G) process serves as a critical juncture where the member and provider experience intersect with the complexities of the healthcare system. This intricate process navigates through various functions such as claims, clinical services, provider relations, and member relations, drawing from multiple data sources and a network of legacy systems. The amalgamation of these elements can strain resources and potentially jeopardize the health and satisfaction of members.

Although there is a growing focus on enhancing the Appeals and Grievances (A&G) process within the healthcare industry, significant variability persists in how healthcare organizations manage A&G workflows, utilize technology, and rely on human intervention to facilitate these processes. This variability results in costly and inefficient operations, leading to inconsistent experiences for both members and providers. Furthermore,

it poses a risk of non-compliance, potentially resulting in substantial financial penalties, and contributes to employee burnout and fatigue.

#### a. Research Objective/Scope

The research objective of this study is to explore the potential of digitizing the appeals and grievance process using PEGA AI, aiming to enhance efficiency, accuracy, and compliance within healthcare organizations. This research will delve into the functionalities and capabilities of PEGA AI technologies, assessing their suitability for streamlining appeals and grievance management processes. The scope of the study encompasses an in-depth analysis of industry challenges, AI methodologies, implementation strategies, and real-world case studies. By synthesizing academic literature, industry insights, and practical experiences, this research aims to provide a comprehensive framework for leveraging PEGA AI to optimize appeals and grievance processes in healthcare administration.

#### b. What is Appeals and Grievance

According to the Centers of Medicare and Medicaid Services (CMS):

**Appeal** is the process used when a party (for example, a beneficiary, provider, or supplier) disagrees with an initial determination or a revised determination for health care items or services. Appeals may include a delay or a denial to approve or provide health care service or drug coverage, or to determine costs the enrollee must pay for a service or drug<sup>1</sup>.

**Grievance** is an expression of dissatisfaction (other than an organization determination) with any aspect of the operations, activities, or behavior of a Medicare health plan, or its providers, regardless of whether remedial action is requested<sup>2</sup>.

#### 2. Challenges in Appeals and Grievance Management

The healthcare industry has undergone significant evolution over decades, with various segments experiencing disparate rates of growth and development. Government regulations and technological advancements have often targeted specific sectors of the industry at different times, resulting in a heterogeneous transformation and fragmentation of data within payer organizations' value chains.

Information pertaining to members or providers is typically stored in isolated silos across multiple sources, including payers, providers, pharmacies, and other related entities. This fragmented data landscape arises when certain departments within a payer organization operate on modern platforms while others rely on legacy technologies, hindering comprehensive data sharing across the organization. Consequently, the lack of unified patient data poses challenges for payers in making informed healthcare decisions, adversely affecting the customer experience

Adding complexity, the healthcare industry is regulated by multiple federal acts and rules such as the Health Insurance Portability and Accountability Act (HIPAA); the Affordable Care Act (ACA); the Audit & Appeals Fairness, Integrity, and Reforms in Medicare Act of 2015 (AFIRM); and the Social Security Act (SSA), all of which directly impact A&G processing. Compliance with all guidelines stands as a pivotal factor determining the star rating of a healthcare payer. Within a competitive marketplace, this star rating significantly influences customers' decisions, directly impacting the selection of plans by members.

#### 3. Appeals and Grievance Process Flow

The appeals and grievances process is intricate and heavily regulated, with nuanced workflows varying between organizations. However, the underlying process flow depicted below remains largely consistent across the industry<sup>3</sup>.



#### 4. Solution Strategy

#### 4.1. Dynamic Case Management

 Dynamic case routing algorithms to automatically assign appeals and grievances to the appropriate teams or individuals based on factors such as case complexity,

- urgency, and staff availability.
- Personalized communication with members and providers by leveraging dynamic case data to tailor messages and responses based on individual circumstances and preferences.
- Unified intake for complaints, appeals, grievances

#### 4.2. Timeliness and Built in Compliance<sup>4</sup>

- Attribute-based ability to track, route, and expedite SLA of cases
- HIPAA-compliant flow
- Reduce non-compliance
- Help ensure cases are closed properly
- Automate outreach emails or written notifications as required

#### 4.3. Logical Workflows

- Improved workflows through enhancements in business rules processing
- Enhanced decision making with automation

#### 4.4. Dashboard and Analytics

- Streamline workflows to enhance efficiency, prioritize urgent matters, and ensure compliance with regulations.
- Customize key performance indicators (KPIs) using a configurable platform tailored to specific needs.
- Utilize user-friendly dashboards for intuitive analysis and informed decision-making.

## 5. Replacing Manual Processes with AI driven Workflows

Artificial intelligence (AI) stands as a powerful tool in reshaping the appeals and grievances (A&G) business process, offering opportunities for significant cost savings and enhanced accuracy. Complemented by machine learning (ML) for adaptive models and deep learning for predictive models, AI applications in the A&G process are diverse and extensive. Several use cases highlight the application of AI in A&G:

- AI can facilitate the intake process by automatically classifying cases into appeals and/or grievances using predictive models.
- Pre-service appeals can be minimized through digital process automation (DPA) of authorizations, supported by an AI-powered engine to bridge departmental gaps.
- Accuracy in claims processing can be improved to reduce post-service appeals by embedding adaptive and predictive AI engines to address documentation gaps before claims leave the payer organization.
- ML and deep learning techniques can be leveraged to detect fraud, waste, and abuse in claims, preventing the flow of inappropriate claims into the system.
- Predictive models can aid in identifying appropriate bundling and unbundling of claim lines within individual claims.
- During decision-making in A&G cases, predictive models can facilitate prompt approval or denial of requests by registered nurses (RNs) and medical doctors (MDs).

 AI-driven workforce intelligence can efficiently manage work across different departments, ensuring streamlined operations.

# 6. Enhancing A&G Intake Process with Natural Language Processing (NLP)

A substantial portion of Appeals and Grievances (A&G) intake data is reliant on physical documents, thereby increasing manual labor in the A&G workflow. Natural Language Processing (NLP), a fundamental aspect of Artificial Intelligence (AI), can be utilized to streamline the case intake process in healthcare A&G.

Intelligent Optical Character Recognition (OCR) technologies can be implemented for paper-based intake, facilitating the scanning of information from physical documents into digital systems for further analysis. This workflow can be enhanced through the integration of NLP techniques.

Additionally, NLP can be applied to augment contactless contact centers based on member or provider communication patterns. Consequently, the utilization of NLP has the potential to substantially enhance business value and automate the intake phase of the A&G process and beyond, encompassing the tracking of incoming emails, chats, and contact center inputs.

#### 7. Conclusion

In conclusion, the digitization of Appeals and Grievance processes through the integration of PEGA AI represents a significant advancement in healthcare administration. This research paper has highlighted the potential benefits of leveraging AI technologies, such as natural language processing and machine learning, to streamline case intake, improve decisionmaking, and enhance overall efficiency and compliance. By embracing digitization, healthcare organizations can reduce manual effort, minimize penalties, reduce costs and enhance compliance and productivity, thereby elevating a payer's star ratings within the marketplace. Furthermore, the integration of PEGA AI offers opportunities for continuous improvement and innovation in the management of Appeals and Grievances. As the healthcare industry continues to evolve, the adoption of PEGA AI in Appeals and Grievance processes will play a crucial role in driving operational excellence and delivering optimal outcomes for all stakeholders involved.

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