

## Pallium: AI record review

AI-driven, user-centric  
medical record insights

July 2023



### Envision the art of the possible for medical review

Federal and State health care agencies encounter various challenges across the health care continuum when it comes to medical review and its evolving regulations and policies. Patients often complete extensive documentation to receive authorization for care, waiting prolonged periods of time for feedback. Providers review and complete related documentation but are faced with delays when information is missing, or documentation is filled out incorrectly. Reviewers then must navigate large volumes of documentation across patients to extract case-specific information, which can be further complicated by connecting documents to complex policies. Transitioning to a higher level, organizations experiencing these cumulative challenges can thus be impacted by reduced efficiency and functionality. Limitations in staffing and budget can cause an extensive backlog and bottleneck of records to review, which is difficult to address without hiring additional resources and increasing costs. What if there was a tool that could help address these challenges across the various stakeholders of the health care ecosystem?

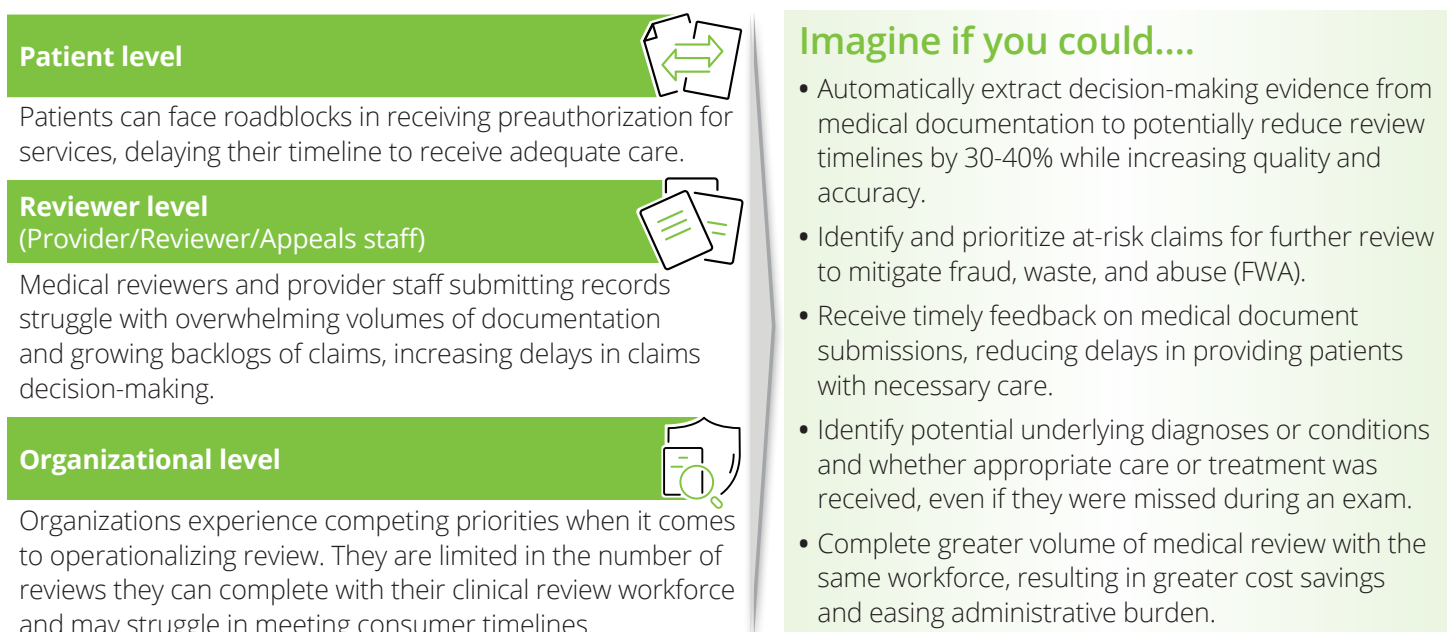
Deloitte's Pallium: AI Record Review is a tool we use to help our clients efficiently perform medical review. This solution expedites and streamlines medical review to guide reviewers to targeted, policy-driven data- ultimately empowering reviewer decision making, increasing throughput, and helping to mitigate the risk for FWA.

### A closer look at medical review challenges

Medical review refers to the collective review of medical records (and other associated documentation) for evaluation in a particular context, such as to determine quality-of-care, medical necessity, and proper benefits and/or payments. These processes can vary on a case-by-case basis which can make standardization of procedures complicated to achieve. Medical review often requires specialized skillsets from medical coders, nurses, doctors, and quality assurance teams. Despite the seasoned proficiency of these professionals, medical review remains a time-consuming and inherently costly task due to issues such as variations in documentation, heterogeneity of reported measures, and inconsistent clinical language. This can overwhelm systems at scale, specifically considering that the documentation for a single patient and/or service can include records containing hundreds to thousands of pages. The resulting outcomes can be an immense burden to patients who could experience delays in receiving the appropriate medical care while waiting for preauthorization. Completing these reviews more efficiently and accurately the first time around is imperative to instill trust in agency processes, reduce appeals, and relay determinations in a timely manner. Figure 2 highlights a summary of the associated challenges.

Regarding Federal and State policies, medical review can be performed to identify whether a claim has been paid

**Figure 1: Imagine: Medical review across the healthcare continuum**



**Figure 2: High-level overview of medical review requirements and common challenges**



and is compliant with guidelines. As an example, Medicare regulations often require physician documentation when approving billing requirements for services or supplies. The supporting documentation for this procedure can be inundated by the complexity of the patient’s medical condition, multitude of diagnosis codes, volume of clinical notes, and payment requirements. Organizations that conduct manual reviews in these cases may struggle to approve and pay claims within specified timeframes, thereby impacting organizational resources and leading to downstream effects on timely care and compensation for beneficiaries.

**Deloitte’s solution | Pallium: AI record review**

Fortunately, advanced and automated tools pose great potential to simplify and transform medical review processes into efficient and streamlined tasks. Specifically, Deloitte’s Pallium: AI Record Review solution, equipped with Artificially Intelligent (AI) driven technology, is strategically designed to approach and refine medical review - spanning capabilities from automated review of documents and policy requirements to identifying document types and key evidence pertinent to reviewers.

The Pallium: AI Record Review workflow below is equipped with functional capabilities to add value to medical review and related processes. Optical Character Recognition (OCR) and Natural Language Processing (NLP) can be coupled with machine learning to explore the relationships between clinical narratives, diagnostic data, and other evidence as mapped by reviewers during the record review process. This mapping produces a unique opportunity for Generative AI to suggest supporting evidence and summarize episodes

of care that reviewers can integrate into their reporting documentation to enhance decision-making.

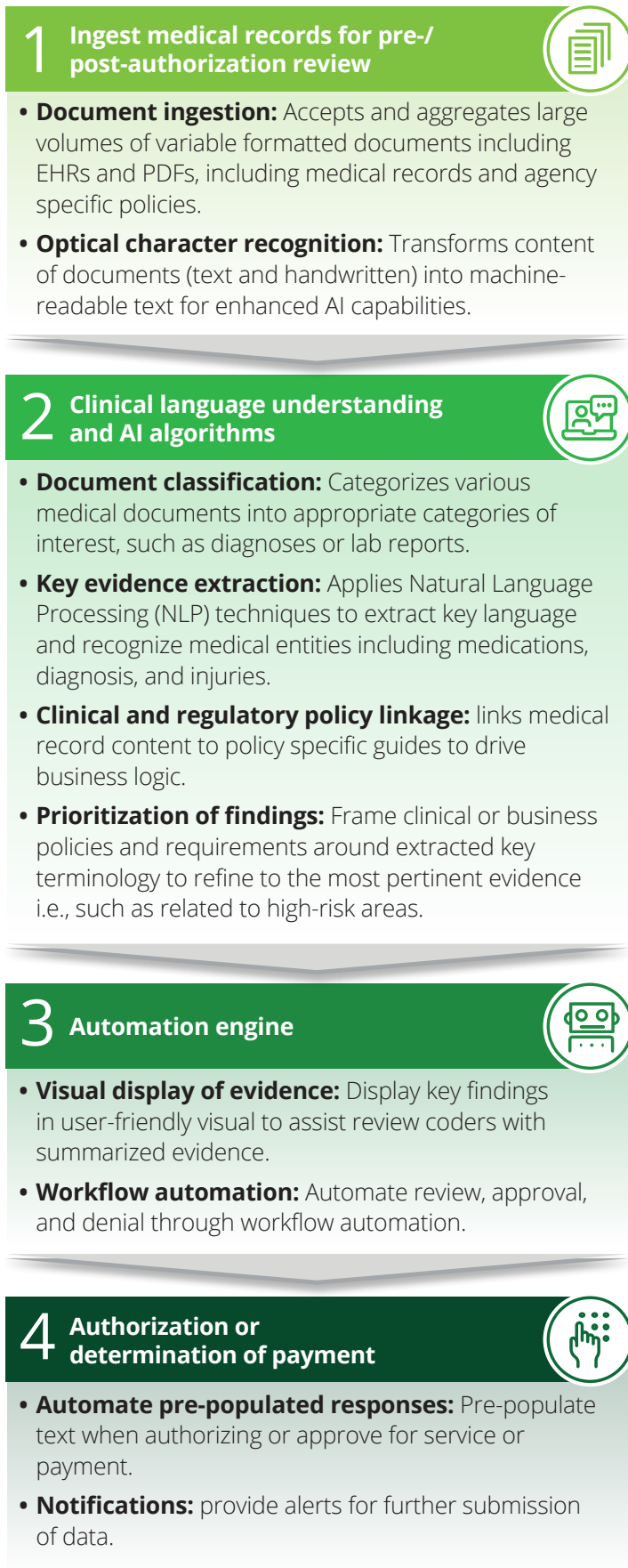
NLP techniques and large language models (LLMs) can be configured within Pallium: AI Record Review to process documents in other meaningful ways. For example, LLMs are adept at medical narrative simplification by translating medical documents and opinions into patient-friendly outputs. LLMs are also capable of mining disparate data sources to synthesize patterns and trends that simpler models could not. Custom applications of LLMs can incorporate several of these functions to power interactive ‘smart’ query assistants to enhance reviewer search capabilities.

Clinicians, medical coders, and policy experts across health care agencies who interact with Pallium: AI Record Review are vital to the tool success measures. Pallium: AI Record Review iteratively gathers and learns from reviewer feedback specific to the context of the task objectives, such as prior authorization of high-cost procedures, medical necessity determination, and adjudication accuracy. When addressing these areas, Pallium: AI Record Review can be a critical component that helps you determine whether the claim or service is accurately documented, required, and compliant with the clinical and regulatory policies provided.

**Benefits of Pallium: AI record review**

With these capabilities in action, Pallium: AI record is designed to not only save time and reduce human error, but highlight a more detailed and focused set of evidence pertinent to the required policies in place. By taking a closer lens to supporting documentation of high-risk

Figure 3: Pallium: AI Record Review



cases, Pallium: AI Record Review can better identify discrepancies in reporting materials to ultimately mitigate risk for FWA. Recent implementations of Pallium: AI Record Review reduced medical review processing and decision timelines by up to 30-40%<sup>1</sup>, improved response times for payment, and provided consistency to the medical review process while concurrently enhancing the review quality – ultimately allowing patients to receive their benefit and claims determinations faster. Pallium: AI Record Review can help ease administrative burden, enabling organizations to find targeted information faster and focus review efforts on more complex, higher risk records.

**Conclusion**

Given the volume of information entering modernized medical record and EHR management systems, an approach solely comprised of human interaction will not keep up with increasing demands of the medical review process. While Artificial Intelligence will never replace human decision-making processes, agencies will be better positioned by leveraging such technologies as accelerators for their organizations. Applying Deloitte’s Pallium: AI Record Review can assist agencies throughout the medical review process to focus reviews on the most relevant policy-driven information, highlight at-risk areas, and increase efficiency of reviews. Pallium: AI Record Review in action can help you improve consumer and provider experiences which may result in increased quality of care and more timely and accurate compensation to individuals.

Contact us to learn more about how Pallium: AI Record Review can enhance efficiency, consistency, and throughput!

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<sup>1</sup> Actual time savings may vary based on individual facts and circumstances



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