

Optimizing Medication Prior Authorization Workflows

ASHP Artificial Intelligence Case Studies

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Case Study Type: Workflow Optimization

Tool Type: Clinician or Internal-Facing, Vendor Product

Case Overview:

This initiative used a human-in-the-lead, AI-supported model to optimize prior authorization (PA) workflows within Pharmacy Access Services (PAS). The tool supports clinical data extraction, payer criteria matching, and PA submission preparation within the EHR-connected workflow. The program addressed manual, fragmented processes that delayed therapy initiation, increased administrative burden, and contributed to inconsistent submission quality. By using AI to assist with routine data gathering while PAS staff lead validation and exception review, the model improves speed, consistency, and scalability without removing human judgment from the process.

Tool and Project Details:

The vendor-supported workflow optimization platform is used by PAS to surface relevant chart information, compare documentation against payer requirements, draft standardized PA content, and help prioritize work queues. Implementation required partnership among the vendor, pharmacy, IT, revenue cycle, compliance, and operations. The tool connects with EHR-enabled workflows and provides visibility into user activity and performance trends. Its value is not simply automation; it creates a more organized front end for PA work so staff can spend less time searching in the chart and more time resolving exceptions.

Key Elements of Success:

Success depended on strong preparation before launch: workflow mapping, baseline metric review, stakeholder alignment, and phased implementation. PAS staff and pharmacists defined operational needs and tested output accuracy; IT supported integration and data governance; revenue cycle ensured billing alignment; and compliance/legal reviewed privacy and regulatory considerations. Vendor selection emphasized EHR fit, clinical extraction accuracy, scalability, and usability in real PA workflows. Internal AI oversight helped guide risk mitigation, monitoring, and adoption. No IRB approval was required because this was an operational improvement initiative, but compliance review confirmed alignment with HIPAA and organizational policies.

Impact on Outcomes:

The human-in-the-lead PA workflow produced measurable improvements in speed, quality, capacity, and experience. The AI support reduced manual burden by organizing routine data extraction and documentation, while PAS staff retained oversight of clinical response judgment, exceptions, and final submission quality.

Outcome Area	Final Impact
Efficiency & capacity	PA turnaround time decreased by 30–40%; manual chart review fell to an average of 3 minutes per case; higher case volume managed per PAS FTE.
Submission quality	First-pass approval rates improved by 15–25%; rework and resubmissions decreased through more complete initial submissions.
Patient & provider impact	Patients experienced faster time to therapy initiation and fewer delays related to missing documentation, while providers saw less administrative back-and-forth.
Staff experience & scalability	Staff shifted toward exception management and complex cases, improving focus and supporting standardization and centralization across the system.
Unexpected outcomes	Positive: stronger documentation consistency across clinics. Challenge: early oversight needed to validate AI outputs, build staff trust, and manage gaps from the unintegrated platform.

Overall, the program shows how AI can support repeatable workflow steps while pharmacy teams lead quality, judgment, and patient-centered access.

Role of the Pharmacy and Pharmacists:

Pharmacy served as the operational and clinical anchor for the initiative. Pharmacy leadership set goals, sponsored the work, and aligned the project with medication access priorities. PAS leaders and frontline staff shaped workflow design, tested AI-generated content, identified gaps, and confirmed readiness for broader use. Pharmacists ensured payer criteria and clinical documentation needs were accurately reflected. Training focused on tool navigation, output validation, exception management, and continuous improvement. No formal certification was required, but staff developed practical competencies in supervising AI-assisted work while preserving clinical response judgment and accountability.

Budget & Resource Allocation:

The program launched as a scoped, operationally budgeted pilot with success metrics tied to contract-period value. Key investments included the vendor platform, EHR-related integration work, data governance, staff training, workflow redesign, and validation time. The ROI case focused on measurable operational lift: shorter PA turnaround time, less manual review, increased capacity without additional FTEs, fewer resubmissions, and faster patient access to therapy. Early results demonstrated enough efficiency and scalability to support continued operational adoption.

Lessons Learned:

The biggest lessons were cultural as much as technical. Building trust in AI-supported output required early staff involvement, transparent metrics, firsthand testing, and visible leadership support. Technical hurdles included EHR integration and validation of extracted data; workflow hurdles included helping teams shift from manual chart review to exception-based oversight. Alternatives included adding staff or making incremental manual process changes, but the human-in-the-lead approach offered stronger scalability and standardization while preserving staff accountability. At this stage, the team would stop relying on routine manual review for predictable cases and continue advancing staff toward oversight, complex problem-solving, and workflow optimization.

Future Goals & Ongoing Monitoring:

Future work will focus on deeper EHR-native integration and expansion into related access workflows, including financial assistance, real-time prescription benefit (RTPB), EPA, and native AI capabilities. PAS leadership will continue centralizing access services while partnering with community and specialty pharmacy teams to support medication access and network integrity. Ongoing monitoring will track turnaround time, first-pass approval rates, rework, staff adoption, case volume, and ROI. The long-term strategy is to keep humans leading access decisions while using AI to support routine workflow steps, guide prescribing with better data, reduce downstream rework, and sustain a scalable medication access model.

PHOTO:

