

# **Navigating the Prior Authorization Crisis: A Strategic Report on Mitigating Delays, Reducing Financial Toxicity, and Harnessing a New Era of Automation**

## **Executive Summary**

The U.S. healthcare system is contending with a prior authorization (PA) process that has evolved from a targeted cost-control mechanism into a pervasive source of administrative waste, financial strain, and direct patient harm. This report provides a comprehensive analysis of the PA crisis, synthesizing data from leading industry bodies, regulatory filings, and financial analyses to equip healthcare leadership with the strategic intelligence necessary to navigate this complex challenge.

The operational burden on provider organizations is staggering and continues to grow. A typical physician practice now completes an average of 39 to 45 prior authorizations per physician each week, consuming 12 to 13 hours of physician and staff time—the equivalent of nearly two full business days diverted from patient care.<sup>1</sup> This has forced an estimated 92% of medical groups to hire or redistribute staff specifically to manage this workload, transforming PA management into a significant, non-reimbursable administrative overhead.<sup>4</sup>

This administrative friction has dire consequences for patients. An overwhelming 94% of physicians report that PA processes delay access to necessary medical care.<sup>6</sup> These delays are a primary driver of treatment abandonment, with 78% of physicians reporting that patients forgo their recommended course of care due to the cumbersome process.<sup>8</sup> Most alarmingly, these delays are not benign; 24% of physicians report that a PA delay has led to a serious adverse event for a patient, including hospitalization, permanent disability, or death.<sup>2</sup>

Financially, the system is paradoxical. While intended to control costs, PA processes are a significant driver of financial toxicity for providers and inflationary pressure on the system. The direct cost of manual PA processing is estimated to be as high as

\$11,000 annually per clinician.<sup>11</sup> These costs are compounded by lost revenue from denials, which are frequently issued for administrative reasons rather than a lack of medical necessity. In Medicare Advantage, 81.7% of appealed PA denials are overturned, proving the initial decisions were flawed.<sup>2</sup> Yet, due to the immense burden of the appeals process, only 11.7% of denials are ever challenged, allowing payers to retain revenue that providers are rightfully owed.<sup>13</sup> Furthermore, 88% of physicians report that PA leads to

*higher overall resource utilization through avoidable emergency department visits and hospitalizations, undermining its core purpose.*<sup>1</sup>

However, the landscape is on the cusp of a fundamental transformation. The confluence of landmark federal regulation and rapid technological advancement presents a clear path forward. The Centers for Medicare & Medicaid Services (CMS) Interoperability and Prior Authorization Final Rule will, by 2027, mandate standardized, electronic APIs for PA transactions, creating a "digital floor" for the industry and promising to save physician practices an estimated \$15 billion over the next decade.<sup>14</sup> Concurrently, the maturation of Artificial Intelligence (AI), Machine Learning (ML), and Robotic Process Automation (RPA) offers tools to predict and prevent denials, automate workflows, and transform PA management from a reactive, manual burden into a proactive, intelligent, and integrated function.

This report concludes with a strategic framework for provider organizations. The path to optimization involves a multi-pronged approach: implementing foundational process improvements and dedicated staffing models; adopting a sophisticated technology stack that leverages EHR-integrated solutions, third-party platforms, and AI/RPA; and engaging in forward-looking advocacy for programs like "gold-carding." The ultimate objective is to transition from the current dysfunctional state to a future where prior authorization is a seamless, real-time, and largely invisible component of the care delivery workflow, restoring the focus to patient outcomes and financial stability.

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## **I. The Pervasive Challenge of Prior Authorization: Quantifying the National Burden**

Prior authorization, a utilization management process originally designed by health

plans to control costs for a narrow set of services, has expanded into a ubiquitous and burdensome feature of the American healthcare landscape.<sup>17</sup> Data from recent national surveys of physicians and medical groups paint a stark picture of a system generating an unsustainable administrative load, causing demonstrable harm to patients, and fueling a crisis of physician burnout. The evidence demonstrates that PA is no longer a simple administrative checkpoint but a significant operational and clinical impediment.

### **A. The Escalating Administrative Load on Healthcare Providers**

The volume and complexity of prior authorization requirements have surged, placing an immense strain on provider resources. According to the American Medical Association (AMA), 81% of physicians report that the number of required PAs has increased over the past five years.<sup>18</sup> This is not a marginal increase; medical practices now complete an average of 45 prior authorizations per physician, per week, a figure corroborated by multiple surveys that place the average between 39 and 45.<sup>1</sup>

This workload translates directly into a massive diversion of time and human capital away from clinical duties. On average, physician practices spend 12 to 13 hours per physician each week completing these requests.<sup>1</sup> This equates to nearly two full eight-hour business days per week, per physician, dedicated solely to administrative tasks that do not directly contribute to patient care. The burden is so profound that a significant portion of the provider workforce is now dedicated to this function. Surveys from the Medical Group Management Association (MGMA) reveal that 92% of medical practices have had to hire new staff or redistribute existing staff to work on prior authorizations due to the increase in requests.<sup>4</sup> Further data shows that 35% to 40% of physicians now employ staff members who work exclusively on PA-related tasks.<sup>2</sup> One practice manager noted that over 15 years, their PA-related staff grew from one full-time equivalent (FTE) to twelve, while the practice itself only grew by 20%.<sup>22</sup> This represents a substantial and growing non-reimbursable administrative cost that directly impacts a practice's financial viability.

The perception of this burden among frontline clinicians is nearly universal. Across multiple annual surveys, an overwhelming majority of physicians and practice leaders—between 88% and 89.35%—describe prior authorization requirements as "high," "extremely high," or "very or extremely" burdensome.<sup>3</sup> This sentiment has been consistently high for years, with MGMA polls showing over 80% of healthcare leaders

reporting increased PA requirements annually since 2016.<sup>23</sup>

## **B. The Human Cost: Documented Impacts on Patient Care, Safety, and Outcomes**

The immense administrative friction created by the PA process is the direct cause of quantifiable harm to patients. The most immediate and widely reported consequence is the delay of medically necessary care. An overwhelming 93% to 94% of physicians report that the PA process "sometimes, often, or always" results in delays to patient access to care.<sup>1</sup> These are not insignificant pauses; 64% of physicians report waiting at least one business day for a PA decision, while nearly one-third (29-30%) state they wait three or more business days.<sup>19</sup> For urgent requests, state laws like Michigan's mandate a 72-hour turnaround, but this timeframe resets if the payer requests additional information.<sup>29</sup>

Faced with these delays and the associated uncertainty, a staggering number of patients simply give up on their prescribed treatment. Between 78% and 82% of physicians report that issues related to the PA process lead patients to abandon their recommended course of treatment altogether.<sup>6</sup> This phenomenon of "treatment abandonment" represents a catastrophic failure of the care delivery system, where a bureaucratic process actively prevents a willing patient and a willing provider from proceeding with necessary care.

The consequences of these delays and abandonments are not merely inconvenient; they are clinically dangerous. A consistent and alarming finding across multiple AMA surveys is that a significant portion of physicians—between 24% and 33%—report that the PA process has led to a serious adverse event for a patient in their care.<sup>2</sup> These events are categorized with grim specificity:

- **Patient Hospitalization:** 18% to 23% of physicians report that a PA delay directly led to a patient's hospitalization.<sup>2</sup>
- **Life-Threatening Events:** 13% to 19% of physicians report PA leading to a life-threatening event or requiring intervention to prevent permanent impairment or damage.<sup>2</sup>
- **Death or Permanent Disability:** In the most tragic outcomes, 7% to 9% of physicians report that PA has led to a patient's disability, permanent bodily damage, congenital anomaly, birth defect, or death.<sup>2</sup> A 2024 survey of radiation oncologists found that 7% of respondents said PA had led to a patient death, and

30% said it had caused an emergency room visit, hospitalization, or permanent disability.<sup>33</sup>

Beyond these acute events, the vast majority of physicians (89% to 94%) believe the PA process has a "somewhat or significantly" negative impact on overall patient clinical outcomes.<sup>1</sup> This includes the destabilization of patients whose conditions were previously managed effectively on a specific treatment plan (reported by 61% of physicians) and a near-universal agreement (89%) that PA interferes with the continuity of care.<sup>17</sup>

The data reveals a clear and destructive causal chain: the immense administrative burden imposed on provider organizations is not merely a "hassle." This resource drain directly creates processing backlogs and communication failures, which manifest as care delays. These delays, in turn, cause a significant percentage of patients to abandon necessary treatment. Finally, for a substantial subset of these patients, particularly those with time-sensitive conditions like cancer, the delay or abandonment of care leads directly to preventable, serious, and sometimes fatal adverse health outcomes. Addressing the administrative friction is, therefore, a direct patient safety imperative.

Furthermore, the scale and consistency of these statistics across multiple years suggest a profound systemic failure. When over 90% of physicians consistently report care delays and over 75% report treatment abandonment, these outcomes are no longer exceptional failures. They have become a normalized, expected feature of the healthcare delivery system. This normalization is a dangerous form of institutional inertia, creating a high tolerance for process-induced patient harm and shifting the focus from preventing these failures to simply managing their inevitable occurrence.

Table 1: Key Benchmarks of the Prior Authorization Burden (Synthesized AMA & MGMA Data, 2022-2024)	
Metric Category	Key Statistic
Administrative Burden	
Average PAs per Physician per Week	39–45 requests <sup>1</sup>

Average Staff Time per Physician per Week	12–13 hours <sup>1</sup>
Practices Hiring/Redistributing Staff for PA	92% <sup>4</sup>
Practices with Staff Working Exclusively on PA	35–40% <sup>2</sup>
Physicians Rating PA as "High" or "Extremely High" Burden	88–89% <sup>3</sup>
<b>Patient Impact</b>	
Physicians Reporting PA-Caused Care Delays	94% <sup>6</sup>
Physicians Reporting Patient Treatment Abandonment due to PA	78–82% <sup>8</sup>
Physicians Reporting Negative Impact on Patient Job Performance	53–58% <sup>1</sup>
<b>Clinical Outcomes &amp; Patient Safety</b>	
Physicians Reporting Negative Impact on Clinical Outcomes	93–94% <sup>1</sup>
Physicians Reporting a Serious Adverse Event due to PA	24–33% <sup>3</sup>
...including Patient Hospitalization	18–23% <sup>2</sup>
...including Life-Threatening Event or Permanent Impairment	13–19% <sup>2</sup>
...including Patient Death or Permanent Disability	7–9% <sup>2</sup>

### C. A System in Distress: Physician Burnout and Resource Diversion

The relentless pressure of the prior authorization process is a significant contributor

to the national crisis of physician burnout. A near-unanimous 95% of physicians report that PA requirements "somewhat or significantly" increase feelings of burnout.<sup>6</sup> This is driven not only by the sheer volume of administrative work but also by the profound professional dissatisfaction and "moral injury" that arises from having their clinical judgment repeatedly questioned, often by reviewers with less expertise.<sup>6</sup>

This erosion of professional autonomy is exacerbated by a pervasive lack of transparency in the PA system. A majority of physicians (61-65%) report that it is difficult to even determine whether a specific medical service or prescription requires a prior authorization in the first place.<sup>17</sup> When they turn to their primary clinical tools for answers, the information is often unreliable; nearly one-third of physicians (30-33%) report that the PA requirement information provided within their Electronic Health Record (EHR) or e-prescribing systems is "rarely or never" accurate.<sup>6</sup> This opacity creates a constant state of uncertainty, forcing staff into time-consuming manual verification processes (phone calls, portal searches) and fueling a deep-seated frustration and mistrust between providers and payers. This environment of inefficiency and antagonism directly undermines the collaborative relationships necessary for a high-functioning healthcare system.

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## **II. The Financial Toll of Inefficiency: A Multi-Layered Cost Analysis**

While payers champion prior authorization as a critical tool for cost containment, a detailed financial analysis reveals a more complex and troubling reality. The process imposes substantial direct costs on provider organizations, creates significant revenue cycle disruption, and generates system-wide economic waste that may ultimately counteract its intended savings. For providers, PA is not a cost-neutral administrative process; it is a direct drain on financial resources and a primary driver of revenue leakage.

### **A. Direct Costs to Provider Organizations: Staffing, Rework, and Overhead**

The financial burden of managing prior authorizations begins with direct, measurable costs. Analyses show that the annual administrative cost of PA ranges from \$2,161 to

\$3,430 per full-time primary care physician.<sup>32</sup> Other studies, encompassing a broader range of clinicians, estimate this cost to be even higher, at approximately \$11,046 per clinician per year, a figure that includes nurse practitioners and physician assistants who also generate PA requests.<sup>11</sup> For a practice with 10 clinicians, this translates to over \$110,000 in annual overhead dedicated solely to PA management.<sup>11</sup>

The Council for Affordable Quality Healthcare (CAQH), which provides the industry's most granular transaction-level cost data, illuminates the severe cost-shifting inherent in the current system. According to the 2023 CAQH Index, a single manual prior authorization transaction (conducted via phone or fax) costs a provider organization an average of **\$10.97**. In stark contrast, the cost to the payer for processing that same manual transaction is only **\$3.52**. The disparity is even more pronounced for fully electronic transactions, which cost the provider \$5.79 but cost the payer a mere five cents.<sup>34</sup>

This economic structure reveals a profound asymmetry. A payer can impose a high-friction, manual process on a provider at a low cost to itself, knowing that the provider must absorb a cost that is more than three times higher to comply. This is not a partnership; it is a financial war of attrition where payers possess a significant structural advantage. This imbalance creates a powerful financial incentive for payers to resist moving away from manual processes, as the friction they create is largely an externalized cost borne by the provider network. For providers, this means that simply trying to "work harder" or become more efficient at manual processes is a fundamentally losing strategy. The only viable path to mitigating this cost is to force a systemic shift to automated, low-cost electronic channels where this asymmetry is reduced.

The cost of rework further compounds the financial strain. Denied claims are not just lost revenue; they are an additional expense. The Healthcare Financial Management Association (HFMA) estimates that the average cost to rework a single denied claim falls between \$25 and \$118, depending on its complexity.<sup>35</sup> A case study examining prior authorizations for upper endoscopy procedures provides a vivid example: a practice spent \$9,740 in employee expenses to achieve a 97.3% first-pass approval rate. However, appealing the remaining 54 denials cost an additional \$9,450 in lost clinician time, nearly doubling the total expense to secure payment for that small fraction of cases.<sup>11</sup>

## **B. Revenue Cycle Disruption: The Impact of Denials, Write-Offs, and Delayed Cash**



## Flow

Beyond direct overhead, prior authorization is one of the most disruptive forces in the healthcare revenue cycle. Issues related to PA are a leading cause of claim denials, which directly impact cash flow and profitability. According to the Advisory Board, as much as 12% of a hospital's net revenue can be at risk due to denied claims, with PA-related issues being a primary culprit.<sup>35</sup> One report found that the dollar value of inpatient denials driven by PA issues surged by 67% in just over a year and a half, growing from 1.5% to 2.5% of gross revenue.<sup>36</sup>

The industry-average claim denial rate hovers between 5% and 10%, a range that healthy organizations strive to stay below.<sup>37</sup> Lack of prior authorization is a major contributor to this rate. Some analyses indicate that up to 25% of all denied claims are due to utilization management issues like missing PA codes.<sup>38</sup> Another source suggests that in a staggering 81% of cases where a claim is denied, the prior authorization was either not obtained or was handled improperly.<sup>28</sup> This leads to significant and often avoidable revenue loss. The healthcare industry as a whole is estimated to lose up to \$5 billion annually from PA-related denials alone.<sup>39</sup> For an average-sized health system, this can translate into 110,000 unpaid claims in a single year due to denials from PA and other factors.<sup>36</sup>

### C. System-Wide Economic Waste: The Paradox of Cost Control

The most profound financial indictment of the prior authorization system is the evidence that it often fails at its primary objective: controlling overall healthcare costs. Instead of reducing spending, it frequently shifts costs and drives up total resource utilization. A remarkable 86% to 88% of physicians report that PA requirements lead to *higher* overall utilization of healthcare resources, resulting in unnecessary waste.<sup>1</sup>

This paradoxical effect is not abstract; it is driven by specific, quantifiable diversions of care that occur as a direct result of PA-induced delays and denials:

- **Ineffective Initial Treatments:** 64% to 69% of physicians report that step-therapy requirements force patients to try and fail on less effective or poorly tolerated treatments before the originally prescribed therapy is approved.<sup>3</sup> This generates costs for ineffective care.

- **Additional Office Visits:** 62% to 68% of physicians report that managing PA issues leads to additional, otherwise unnecessary office visits.<sup>3</sup>
- **Escalation to Urgent/Emergency Care:** 42% to 46% of physicians report that PA delays have forced patients to seek care in more expensive settings, such as an urgent care center or emergency department.<sup>3</sup>
- **Avoidable Hospitalizations:** 29% of physicians report that PA delays have directly led to patient hospitalizations that could have been avoided with timely outpatient treatment.<sup>3</sup>

This evidence points to PA acting as an inflationary force within the healthcare system. It increases direct provider overhead, which must be factored into cost structures and payer contract negotiations. More critically, by delaying or preventing appropriate, lower-cost outpatient care, it directly causes a shift to higher-acuity, higher-cost settings. The "savings" generated by denying a \$500 imaging study are often dwarfed by the eventual cost of a \$20,000 emergency admission that results from the delayed diagnosis. This transforms prior authorization from a cost-containment tool into a mechanism for cost-shifting and, ultimately, cost-inflation. The total administrative spending on PA in the U.S. is estimated to be \$35 billion, a colossal figure that does not even include these downstream costs of escalated care.<sup>12</sup>

#### **D. Quantifying the Automation Opportunity: An Analysis of CAQH Benchmarks**

While the financial picture is bleak, the data also clearly illuminates the path to recovery: automation. The CAQH Index is the definitive source for quantifying the financial opportunity available through administrative simplification. The 2023 report found that the U.S. healthcare industry has the potential to save an additional **\$18.3 billion** annually by converting all remaining manual and partially electronic administrative transactions to fully electronic, standardized formats.<sup>43</sup>

The power of automation is not theoretical; it is proven. The industry is already avoiding an estimated \$193 billion to \$222 billion in annual administrative costs thanks to the electronic transactions currently in place.<sup>43</sup> This figure represents a 15% increase in avoided costs compared to the previous year, demonstrating the accelerating value of automation.<sup>44</sup>

For prior authorization specifically, the savings are substantial. When a specialty

practice switches from a completely manual PA process to a fully electronic one, it can save an average of \$8.51 per transaction.<sup>45</sup> Extrapolated across the entire medical industry, if all PA transactions were conducted electronically, the system would realize an estimated

**\$494 million** in annual savings.<sup>34</sup> While this is a significant figure, it is dwarfed by the potential savings in higher-volume transactions, such as the \$9.3 billion opportunity in eligibility and benefit verification and the \$3.2 billion opportunity in claim status inquiries.<sup>46</sup> This suggests that a comprehensive automation strategy targeting the entire administrative workflow can yield transformative financial results.

Table 2: Financial Impact Analysis: Provider and System-Level Costs (CAQH & HFMA Data)	
Cost Category	Value
<b>Provider-Borne Costs</b>	
Average Cost of a Manual PA Transaction (Provider)	\$10.97 <sup>34</sup>
Average Cost of a Fully Electronic PA Transaction (Provider)	\$5.79 <sup>34</sup>
Estimated Annual Cost per Clinician	\$2,161 – \$11,046 <sup>11</sup>
Average Cost to Rework a Denied Claim	\$25 – \$118 <sup>35</sup>
<b>Payer-Borne Costs (for comparison)</b>	
Average Cost of a Manual PA Transaction (Payer)	\$3.52 <sup>34</sup>
Average Cost of a Fully Electronic PA Transaction (Payer)	\$0.05 <sup>34</sup>
<b>System-Wide Opportunity</b>	
Total Annual Savings from Full Automation (All)	\$18.3 Billion <sup>43</sup>

Transactions)	
Annual PA-Specific Automation Savings Opportunity	\$494 Million <sup>34</sup>
Annual Eligibility & Benefit Verification Savings Opportunity	\$9.3 Billion <sup>46</sup>
Annual Claim Status Inquiry Savings Opportunity	\$3.2 Billion <sup>46</sup>

### III. Deconstructing the Delays: A Root Cause Analysis of PA Failures

To effectively solve the prior authorization crisis, it is essential to move beyond documenting its symptoms and conduct a rigorous root cause analysis of its failures. The evidence overwhelmingly indicates that the system is not failing because clinicians are consistently ordering inappropriate care. Rather, it is failing due to a combination of flawed administrative processes, a lack of standardization, opaque and inconsistent payer policies, and perverse incentives that reward friction over efficiency.

#### A. The Anatomy of a Denial: Administrative, Documentation, and Clinical Criteria Failures

A deep dive into denial reasons reveals that the vast majority of PA rejections are rooted in administrative and procedural errors, not fundamental disagreements over medical necessity. The most commonly cited reasons for denial include:

- **Incomplete or Incorrect Information:** This is a primary driver of denials. Simple clerical errors such as missing patient demographic details, incorrect or transposed insurance ID numbers, mismatched provider NPIs, or outdated information are frequent and avoidable culprits.<sup>28</sup>
- **Failure to Provide Medical Necessity Documentation:** While payers often list

"lack of medical necessity" as a top denial reason, this is frequently a misnomer.<sup>39</sup> The issue is typically not that the service is clinically inappropriate, but that the provider failed to submit the specific, and often extensive, documentation required by the payer to

prove necessity. This can include a comprehensive packet of medical records, recent clinical notes, diagnostic test results, or evidence of failed conservative treatments (step therapy).<sup>39</sup>

- **Incorrect Coding:** Mismatched Current Procedural Terminology (CPT) or International Classification of Diseases, 10th Revision (ICD-10) codes are a common cause for automatic rejection.<sup>39</sup>
- **Procedural Errors:** A significant number of denials occur simply because a provider's office failed to obtain a required authorization before a non-emergency service was rendered.<sup>47</sup>

Data from Affordable Care Act (ACA) marketplace plans powerfully reinforces this point. An analysis of these plans found that only **6%** of in-network claim denials were based on a lack of medical necessity. The most common reasons were the vague category of "Other" (34%), followed by administrative reasons (18%), the service being excluded from the plan's benefits (16%), and a lack of prior authorization or referral (9%).<sup>54</sup> This confirms that the PA process is breaking down on administrative and procedural grounds long before clinical judgment comes into play.

The "documentation gap" is perhaps the most critical point of failure. However, this is not merely a matter of provider carelessness. It is a direct and inevitable symptom of a deeper, systemic problem: the "standardization gap." A single provider organization may work with dozens of different payers, each with its own unique and constantly changing set of rules, submission portals, and required forms.<sup>18</sup> It is operationally infeasible for any practice, especially one relying on manual processes, to perfectly track and execute dozens of disparate documentation protocols without error. The high rate of documentation-related denials is not an indictment of provider competence, but rather an expected outcome of a chaotic, non-standardized system. The root cause is not provider error in a vacuum; it is provider error induced by systemic complexity.

## **B. The Payer Black Box: Inconsistent Policies and Manual Bottlenecks**

The lack of standardization is the central design flaw of the entire PA ecosystem. Each

payer operates within its own silo, establishing proprietary rules, clinical guidelines, and submission mechanisms.<sup>18</sup> These requirements often change with little notice, forcing provider staff to rely on ad-hoc "cheat sheets" that quickly become outdated.<sup>56</sup> This fragmentation makes automation difficult and perpetuates a reliance on outdated, inefficient technology.

Despite advances in healthcare IT, the PA process remains stubbornly manual. Physicians consistently report that the telephone is the most common method for completing PA requests, a process notorious for long hold times and inefficiency.<sup>17</sup> Faxes and a constellation of unique, non-standardized payer web portals are also prevalent methods of submission.<sup>4</sup> As a result, only 28% to 31% of medical PA transactions are conducted in a fully electronic, standardized format (the HIPAA-mandated X12-278 transaction).<sup>21</sup> This reliance on antiquated, manual workflows is a primary bottleneck that introduces errors and delays.<sup>59</sup>

When a denial does occur and a clinical discussion is required, the peer-to-peer (P2P) review process often fails to live up to its name. Intended to be a discussion between clinical equals, it is frequently a source of intense frustration for treating physicians. According to AMA surveys, only **15%** of physicians report that the health plan's "peer" often or always has the appropriate qualifications and specialty expertise to evaluate their clinical decision.<sup>6</sup> This transforms what should be a productive clinical conversation into yet another administrative hurdle, where a specialist must justify their decision to a non-specialist reviewer.<sup>62</sup>

### **C. The Appeals Paradox: Why High Overturn Rates Signal a Flawed Front-End Process**

Perhaps the most damning evidence of a broken system lies in the "appeals paradox": the chasm between an extremely high rate of successful appeals and an extremely low rate of attempted appeals.

Across the Medicare Advantage landscape, an astounding **81.7%** of prior authorization denials that are appealed are subsequently partially or fully overturned by the payer.<sup>2</sup> This figure has remained consistently high for years. This statistic is an unambiguous admission that the vast majority of initial denials are incorrect. They are not based on firm, defensible clinical reasoning but on administrative technicalities,

missing paperwork that is later supplied, or flawed initial reviews.

Despite this high probability of success, only a tiny fraction of denials—just **11.7%** in Medicare Advantage—are ever appealed.<sup>2</sup> This gap is the result of "administrative surrender." The burden of navigating the appeals process—gathering additional documentation, writing letters, and engaging in time-consuming P2P calls—is so immense that providers make a rational economic decision to simply give up.<sup>1</sup> They are forced to write off revenue they are legitimately owed because the cost and effort of fighting for it are prohibitively high.

This dynamic suggests that for some payers, a high initial denial rate may be a deliberate financial strategy, not an operational flaw. By issuing a large volume of easily reversible denials, a payer can leverage the low appeal rate to its advantage. For every 100 denials issued, if only 12 are appealed, the payer successfully avoids payment on the other 88. Even if 82% of the appealed cases (about 10) are overturned, the payer still achieves a net "win" on 88% of its initial denials. The denial itself, regardless of its clinical validity, becomes the cost-saving tool because of the high administrative barrier to challenging it. This represents a strategic weaponization of administrative burden.

#### **D. Payer-Specific Performance: A Comparative Analysis of Denial and Appeal Metrics**

The burden of prior authorization is not distributed evenly. Data analysis reveals significant variation in the utilization management strategies and denial rates of major national payers. A KFF analysis of 2023 Medicare Advantage data, reported by outlets like Becker's Hospital Review, provides actionable, comparative intelligence for providers.<sup>65</sup>

- **Denial Rates:** The average denial rate for PA requests in MA was 6.4% in 2023. However, this average masks a wide range, from a low of 3.5% for Humana to a high of **13.6% for Centene**. CVS Health (Aetna) was also high at 11%.<sup>13</sup>
- **Intensity of Utilization Management:** The number of PA requests per enrollee also varied dramatically, indicating different philosophies on managing care. Humana and Anthem/Elevance Health were the most aggressive, with 3.1 requests per member, while Kaiser Permanente was the least, at just 0.5.<sup>65</sup>
- **Appeal and Overturn Rates:** The data for payers with the highest denial rates is

particularly telling. Centene, with its 13.6% denial rate, also had one of the highest overturn rates on appeal at a staggering **93.6%**. CVS Health, with an 11% denial rate, had an 89.7% overturn rate.<sup>65</sup> This combination of high initial denials and extremely high overturn rates strongly supports the hypothesis that denials are being used as an administrative filter rather than a precise clinical tool.

Table 3: Medicare Advantage Payer Scorecard: Denial and Appeal Metrics (2023 Data)				
<b>Payer Name</b>	<b>Requests per Enrollee</b>	<b>Initial Denial Rate (%)</b>	<b>Appeal Rate (%)</b>	<b>Overturn Rate on Appeal (%)</b>
<b>Centene</b>	2.4	<b>13.6%</b>	8.8%	<b>93.6%</b>
<b>CVS Health (Aetna)</b>	1.3	11.0%	16.8%	89.7%
<b>Kaiser Permanente</b>	0.5	10.0%	1.7%	42.4%
<b>UnitedHealth care</b>	1.0	9.1%	15.5%	85.2%
<b>Cigna</b>	1.9	7.7%	<b>18.0%</b>	86.0%
<b>Blue Cross Blue Shield (Aggregate)</b>	2.3	5.8%	10.4%	80.7%
<b>Anthem/Ele vance Health</b>	<b>3.1</b>	4.3%	6.4%	71.1%



Humana	3.1	3.5%	9.1%	64.9%	
Source: KFF analysis of CMS data, as reported by Becker's Hospital Review <sup>65</sup>					

This scorecard provides critical intelligence for provider organizations. It allows leadership to move from anecdotal complaints to data-driven conversations during payer negotiations. It can inform RCM resource allocation, justifying the assignment of more experienced staff to manage payers with higher denial rates. It also provides concrete evidence for advocacy efforts aimed at curbing the most egregious payer behaviors.

## IV. The Horizon of Change: The Regulatory and Technological Revolution in Prior Authorization

While the current state of prior authorization is fraught with inefficiency and friction, the landscape is on the verge of a seismic shift. Two powerful forces—landmark federal regulation and the rapid maturation of intelligent automation technologies—are converging to dismantle the manual, opaque processes of the past and usher in a new era of electronic, transparent, and streamlined PA management. For provider organizations, understanding and preparing for these changes is not just a matter of compliance; it is a strategic imperative for survival and success.

### A. Landmark Legislation: The CMS Interoperability and Prior Authorization Final Rule (CMS-0057-F)

Released by the Centers for Medicare & Medicaid Services (CMS) on January 17, 2024, the Interoperability and Prior Authorization Final Rule (CMS-0057-F) represents the most significant federal intervention to reform PA to date.<sup>67</sup> The rule targets the

root causes of delays and administrative burden by mandating greater transparency, faster decision-making, and, most importantly, the adoption of standardized electronic data exchange. The rule applies to a broad swath of the market, including Medicare Advantage (MA) plans, state Medicaid and Children's Health Insurance Program (CHIP) plans (both fee-for-service and managed care), and Qualified Health Plan (QHP) issuers on the Federally-Facilitated Marketplaces.<sup>16</sup>

The rule's key provisions are set to be implemented on a staggered timeline:

- **Stricter Turnaround Times (Compliance by January 1, 2026):** Impacted payers will be required to make decisions on standard (non-urgent) PA requests within **7 calendar days**, a significant reduction from the current 14-day allowance for MA plans. For expedited (urgent) requests, a decision must be rendered within **72 hours**.<sup>15</sup> This establishes a federal floor for timeliness, forcing payers to re-engineer their internal review processes for greater speed.
- **Transparency Mandates (Compliance by January 1, 2026):** Payers will be required to provide a specific, valid reason for any PA denial, moving beyond cryptic codes to offer clear, actionable feedback to providers.<sup>15</sup> They must also begin publicly reporting certain aggregate PA metrics, shining a light on their performance and enabling comparisons.
- **Standardized, FHIR-Based APIs (Compliance by January 1, 2027):** This is the technological centerpiece of the rule. Payers must develop, implement, and maintain a suite of Application Programming Interfaces (APIs) built on the Fast Healthcare Interoperability Resources (FHIR) standard. These APIs are designed to automate the electronic exchange of PA data, breaking down the silos of proprietary portals and fax machines.<sup>16</sup>

The mandated APIs will create a new, interconnected ecosystem for PA:

- **Prior Authorization API (PARDD):** The Prior Authorization Requirements, Documentation, and Decision API will be the workhorse of the new system. It will allow a provider's EHR or practice management system to electronically and automatically query a payer to determine if a PA is required, identify the specific documentation needed, submit the PA request, and receive a decision in real-time.<sup>16</sup>
- **Payer-to-Payer API:** To improve care continuity, this API will facilitate the secure transfer of a patient's data—including their history of prior authorizations—when they switch health plans. This will reduce the need for providers to obtain new authorizations for ongoing courses of treatment.<sup>16</sup>
- **Enhanced Patient and Provider Access APIs:** The rule builds on existing API requirements to ensure that information about prior authorizations is included in

the data shared with patients and their providers, increasing transparency and empowering them with a more complete view of their health information.<sup>16</sup>

The projected impact of this rule is enormous. CMS estimates it will save physician practices **\$15 billion** and 206 million hours of administrative work over the next decade.<sup>14</sup> However, there is a notable tension in financial projections. The Congressional Budget Office (CBO), in scoring similar legislation, projected that simplifying PA could

*increase* federal spending by \$16 billion over ten years, driven by an expected increase in the utilization of services that were previously deterred by administrative hurdles.<sup>69</sup> This highlights the fundamental conflict at the heart of PA: administrative burden, while harmful, is an effective, albeit blunt, tool for utilization control.

## **B. The Rise of Intelligent Automation: AI, Machine Learning, and RPA**

Running parallel to the regulatory push is a technological revolution in automation. Advanced software solutions are now capable of addressing the core inefficiencies of the PA process with a sophistication that was unimaginable just a few years ago.

- **Artificial Intelligence (AI) and Machine Learning (ML) for Denial Prediction:**  
A new frontier in Revenue Cycle Management (RCM) is the use of AI and ML to shift from a reactive to a proactive stance on denials. These systems analyze a provider's vast trove of historical claims data, cross-referencing it with payer rules and patient information to build predictive models. These models can identify high-risk claims *before* they are submitted, flagging them for review and correction.<sup>72</sup> This allows staff to fix potential issues related to coding, documentation, or eligibility upfront, dramatically increasing the first-pass approval rate. Advanced tools, such as John Snow Labs' "LLM-as-a-Judge," are even using generative AI to read and interpret complex denial letters, automatically categorizing them based on their likelihood of a successful appeal.<sup>74</sup>
- **Robotic Process Automation (RPA):** RPA employs software "bots" to mimic human actions and automate the most repetitive, rules-based tasks in the PA workflow. An RPA bot can be programmed to log into a payer portal, check a patient's eligibility, extract clinical data from an EHR, auto-populate a PA request form, submit the form, and then continuously check the portal for a status update

until a decision is rendered.<sup>75</sup> Case studies have demonstrated the transformative impact of RPA, with one rural hospital reducing its PA-related denial rate to a mere 0.21% and increasing its cash flow by over \$2.2 million through improved efficiency.<sup>76</sup>

The most powerful solutions will represent a convergence of these technologies. RPA bots will handle the mechanical "work" of the process, while AI/ML models provide the "intelligence" to guide the bots' actions, predict outcomes, and flag exceptions for human review.

### C. The Evolving Technology Stack: From EHRs to Specialized Platforms

The technology to enable this automated future is evolving rapidly across several fronts:

- **EHR-Integrated Solutions:** Major EHR vendors like Epic and Oracle Health (formerly Cerner) are embedding PA automation directly into their core platforms. Epic, for instance, offers features for real-time coding suggestions and automated submission of PA requests, aiming to keep the clinician within a single, seamless workflow.<sup>77</sup> Oracle Health's open architecture and modern APIs are also designed to facilitate integration with payer systems.<sup>78</sup> The goal for these vendors is to leverage the new FHIR standards mandated by the CMS rule to create a deeply integrated, native PA experience.<sup>77</sup>
- **Third-Party Intermediary Platforms:** Companies like Availity and Change Healthcare have built extensive networks that function as clearinghouses, connecting millions of providers to thousands of payers through a single pipe. Availity, which calls itself "the largest network in healthcare," claims direct connections to 95% of U.S. health plans.<sup>80</sup> Its AI-driven "Intelligent Utilization Management" solution reportedly handles 80% of its PA requests in a "touchless" manner, providing an automated response in under 90 seconds.<sup>80</sup> These platforms offer a way for providers to standardize and automate their interactions with a wide range of payers today, even before the CMS rule's 2027 deadline.
- **Specialized AI and RPA Vendors:** A vibrant ecosystem of niche technology companies (such as Olive, Notable, Infinitus, and Jorie AI) has emerged, focusing exclusively on solving the PA problem with targeted AI and RPA solutions.<sup>76</sup> These vendors offer specialized tools that can be integrated with a provider's existing EHR and RCM systems, providing a focused path to automating this specific pain

point.

The CMS rule is poised to create a "digital floor" for the industry, mandating a baseline level of electronic interoperability that will force all payers to abandon their most antiquated processes. However, simple compliance with the rule will not be the end of the story. It will not, by itself, create the highly efficient, "touchless" automation that leading technology vendors already offer.<sup>81</sup> The competitive landscape will shift. The advantage will no longer lie in being able to navigate manual chaos but in being able to optimize automated workflows. High-performing payers will use the mandated APIs as a foundation upon which to build more sophisticated, AI-driven services to reduce provider abrasion and differentiate themselves in the market.<sup>81</sup> For providers, this means the future is not a single, universally simple electronic process, but a tiered system where they must still navigate varying levels of payer technological maturity.

This technological and regulatory convergence will also fundamentally redefine the nature of PA-related work. As automation handles the vast majority of routine, "clean" requests, the role of the human PA specialist will evolve dramatically. They will transition from being manual data entry clerks to becoming highly skilled exception handlers. Their focus will shift from processing volume to resolving only the most complex, clinically nuanced cases that automation cannot handle—those requiring sophisticated appeal strategies, deep clinical documentation review, or direct P2P engagement. This necessitates a complete rethinking of staffing models, job descriptions, required competencies, and training programs for the RCM workforce of the future.

Table 4: The CMS Interoperability & PA Final Rule: Key Provisions and Timelines			
<b>Provision</b>	<b>Requirement for Payers</b>	<b>Compliance Deadline</b>	<b>Strategic Implication for Providers</b>
<b>Shortened Decision Timeframes</b>	Make standard PA decisions within 7 calendar days; expedited decisions within 72 hours. <sup>15</sup>	Jan 1, 2026	Enables faster patient scheduling and reduces care delays; requires internal workflows to be

			optimized for speed.
<b>Specific Denial Reasons</b>	Must provide a specific clinical or administrative reason for any denial, not just a generic code. <sup>15</sup>	Jan 1, 2026	Provides clear, actionable data for appeals; enables root cause analysis of denials to improve future submissions.
<b>Prior Authorization API (PARDD)</b>	Implement a FHIR-based API to allow electronic queries of PA requirements, submission of requests, and receipt of decisions. <sup>16</sup>	Jan 1, 2027	The core of automation. Enables direct integration with EHRs, eliminating manual portals and faxes. Unlocks potential for real-time approvals.
<b>Payer-to-Payer API</b>	Implement a FHIR-based API to exchange patient data, including PA history, with a patient's previous or concurrent payer. <sup>16</sup>	Jan 1, 2027	Reduces the need to re-authorize ongoing care when patients change insurance, improving continuity and reducing administrative churn.

## V. Strategic Pathways to Optimization: An Actionable Framework for Provider Organizations

Navigating the complexities of the prior authorization landscape requires more than just incremental improvements. It demands a comprehensive, multi-layered strategy that combines foundational process excellence, aggressive adoption of technology, and forward-looking policy engagement. The following framework provides an actionable roadmap for provider organizations to not only mitigate the current burdens of PA but also to position themselves to thrive in the emerging era of automation and interoperability.

## A. Foundational Strategies (Quick Wins & Process Improvement)

Before significant technology investments can yield their full potential, an organization must first establish a solid foundation of standardized processes and optimized workflows. These foundational strategies can deliver immediate value and are prerequisites for successful automation.

- **Optimizing at the Point of Entry:** The most effective way to reduce PA friction is to ensure every request is as clean and complete as possible from the very beginning. A critical "quick win" is to move PA-related tasks to the front end of the patient encounter. Verifying patient insurance eligibility and checking for prior authorization requirements at the time of scheduling, rather than after a service is ordered, is paramount.<sup>38</sup> This proactive approach allows staff to initiate the PA process early, preventing downstream delays and last-minute scrambles. To combat the leading cause of denials—insufficient documentation—organizations should develop and implement standardized checklists and documentation templates for their most common procedures.<sup>39</sup> This ensures that all necessary clinical notes, test results, and payer-specific information are gathered consistently and submitted with the initial request.
- **Structuring for Success: Centralized vs. Distributed PA Teams:** The organizational structure for managing PAs has a significant impact on performance. While smaller practices may rely on a distributed model where various staff members handle PAs, a growing body of evidence and expert opinion supports the creation of a **centralized, dedicated prior authorization team**.<sup>5</sup> Centralization builds deep institutional knowledge and expertise. A dedicated team becomes fluent in the nuances of different payers, procedures, and appeal strategies, leading to greater efficiency and higher approval rates. This structure also creates a single, accountable point of contact for the organization's PA operations. This centralization creates a "dividend" that extends beyond mere efficiency. A dedicated team becomes a hub of competitive intelligence, systematically collecting data on payer behavior. This team can identify which payers have the highest denial rates, which procedures are most frequently challenged, and which appeal tactics are most successful. This transforms the PA team from a simple administrative cost center into a strategic intelligence unit that can provide invaluable data to inform RCM strategy, guide payer contract negotiations, and even influence clinical service line planning.
- **Investing in Human Capital: The ROI of Staff Specialization and Training:** Regardless of the organizational model, investing in staff is critical. The role of the



**Prior Authorization Specialist** is an emerging and vital profession.<sup>87</sup> These specialists are not merely data entry clerks; they are experts who master payer-specific rules, complex coding requirements, and clinical documentation guidelines. Outsourcing to or developing these specialists internally can dramatically improve approval rates and streamline claim processing.<sup>87</sup> Comprehensive and ongoing training is essential. Well-trained staff can navigate complex requirements more efficiently, reduce costly errors, prevent revenue loss from avoidable denials, and ultimately experience higher job satisfaction and morale by mastering a challenging but critical function.<sup>84</sup>

## B. Advanced Technological Interventions

With a solid process foundation in place, organizations can then leverage technology to achieve transformative gains in efficiency and effectiveness.

- **Embracing End-to-End Automation:** The strategic goal should be to automate the entire PA lifecycle, from initiation to resolution. This involves a multi-pronged technology strategy:
  - **Leverage Core Systems and Platforms:** Organizations should first maximize the capabilities of their existing systems. This means fully utilizing the PA modules and workflow tools within their EHR, such as those offered by Epic and Oracle Health.<sup>77</sup> For broader connectivity, partnering with a third-party intermediary platform like Availity can provide a single, standardized connection to a vast network of payers, effectively centralizing interactions even before the CMS rule takes full effect.<sup>80</sup>
  - **Implement RPA and AI:** To reach the highest levels of automation, organizations should deploy Robotic Process Automation (RPA) to handle the high-volume, repetitive "work" of PA management—tasks like checking eligibility, populating forms, and monitoring status.<sup>75</sup> This should be coupled with Artificial Intelligence (AI) and Machine Learning (ML) to provide the "intelligence"—predicting the likelihood of denial, analyzing clinical documentation for completeness, and identifying the root causes of recurring denials.<sup>72</sup>
- **Instituting Data-Driven Performance Management:** An organization cannot manage what it does not measure. High-performing organizations establish and rigorously monitor a set of Key Performance Indicators (KPIs) to track the health of their PA process.<sup>84</sup> Essential metrics include:



- Turnaround Time (TAT) from request to decision.
- First-Pass Approval Rate.
- Denial Rate (broken down by payer, service line, and reason).
- Appeal Rate and Appeal Success Rate.
- Staff productivity (authorizations processed per FTE).

This data should be used to "follow the money," prioritizing process improvement and automation efforts on the high-volume, high-revenue, or high-denial services where the return on investment will be greatest.<sup>86</sup>

### C. Forward-Looking Policy and Advocacy

Finally, provider organizations must engage proactively with payers and policymakers to shape a more rational PA environment for the future.

- **Championing "Gold-Carding" Programs:** "Gold card" programs, which exempt physicians with a proven track record of high approval rates from PA requirements for certain services, are one of the most promising avenues for reducing administrative burden. Several states, including Texas and Michigan, have enacted gold-card legislation, and some payers, like UnitedHealthcare, have implemented their own national programs.<sup>32</sup> However, adoption remains low, with only 10% of physicians reporting that they contract with a plan offering such a program.<sup>17</sup> Provider organizations must meticulously track their own approval rate data to demonstrate their eligibility for these programs and proactively advocate with their payer partners for their creation and expansion.<sup>2</sup>
- **Pursuing Strategic Payer Collaboration:** While the provider-payer relationship is often adversarial, strategic collaboration can yield mutual benefits. By using the performance data gathered from internal KPI tracking, providers can approach payers with a data-driven business case for process improvement. Demonstrating how a payer's specific policies are creating unnecessary denials, delays, and appeals can open the door to collaborative problem-solving. Aligning on the use of shared, evidence-based clinical guidelines can also build trust and reduce friction.<sup>82</sup>
- **Preparing for the CMS Mandates: A Strategic Roadmap for 2025 and Beyond:** The CMS Interoperability and Prior Authorization Final Rule is not a distant concern; it requires immediate strategic planning. Organizations should begin now to:
  1. **Conduct a Technology Assessment:** Evaluate current technology

capabilities and begin engaging with EHR and third-party vendors to develop a clear roadmap for API implementation ahead of the 2027 deadline.

2. **Redesign Internal Workflows:** Proactively redesign PA workflows to align with the faster turnaround times and automated data exchange the rule will enable.
3. **Develop a Staff Retraining Plan:** Create a plan to upskill the PA workforce, preparing for the fundamental shift from manual data processors to skilled exception handlers and analysts.

The ultimate strategic goal, enabled by this convergence of process, technology, and regulation, is to fundamentally redefine the prior authorization experience. The future state is not simply a faster version of the current transactional model. It is a proactive and personalized system where the PA process effectively disappears into the background of the clinical workflow. At the moment a service is ordered, the provider's EHR should be able to query a payer's API in real-time, use AI to instantly determine if a PA is needed and assemble the required documentation, and receive an automated approval in seconds. Achieving this vision will eliminate one of the greatest sources of friction in modern healthcare, allowing providers to reclaim billions of dollars in lost revenue and countless hours of wasted time, and—most importantly—to restore their focus to the timely and effective care of their patients.

## Works cited

1. AMA Survey Highlights Growing Burden of Prior Authorization on Physicians, Patients, accessed July 18, 2025, <https://www.ajmc.com/view/ama-survey-highlights-growing-burden-of-prior-authorization-on-physicians-patients>
2. Fixing prior auth: Nearly 40 prior authorizations a week is way too many, accessed July 18, 2025, <https://www.ama-assn.org/practice-management/prior-authorization/fixing-prior-auth-nearly-40-prior-authorizations-week-way>
3. New AMA survey finds costs and harms of prior authorization exceed alleged benefits, accessed July 18, 2025, <https://www.cmadoes.org/newsroom/news/view/ArticleId/50082/New-AMA-survey-finds-costs-and-harms-of-prior-authorization-exceed-alleged-benefits>
4. 2023 MGMA Regulatory Burden Report FINAL, accessed July 18, 2025, <https://www.mgma.com/getkaiasset/423e0368-b834-467c-a6c3-53f4d759a490/2023%20MGMA%20Regulatory%20Burden%20Report%20FINAL.pdf>
5. MGMA 2024 Prior Authorization Issue Brief\_FINAL, accessed July 18, 2025, [https://www.mgma.com/getkaiasset/7caa3c7f-3e0e-443d-873d-b7194673752e/MGMA%202024%20Prior%20Authorization%20Issue%20Brief\\_FINAL.pdf](https://www.mgma.com/getkaiasset/7caa3c7f-3e0e-443d-873d-b7194673752e/MGMA%202024%20Prior%20Authorization%20Issue%20Brief_FINAL.pdf)
6. AMA survey results show ongoing issues with prior authorization process,

- accessed July 18, 2025,  
<https://www.pharmacist.com/Blogs/CEO-Blog/Article/ama-survey-results-show-ongoing-issues-with-prior-authorization-process>
7. AMA survey shows physicians, patients heavily burdened by prior authorization | AHA News, accessed July 18, 2025,  
<https://www.aha.org/news/headline/2024-06-20-ama-survey-shows-physicians-patients-heavily-burdened-prior-authorization>
  8. Exhausted by prior auth, many patients abandon care: AMA survey, accessed July 18, 2025,  
<https://www.ama-assn.org/practice-management/prior-authorization/exhausted-prior-auth-many-patients-abandon-care-ama-survey>
  9. Exhausted by Prior Auth, Many Patients Abandon Care, accessed July 18, 2025,  
<https://strengthenhealthcare.org/exhausted-by-prior-auth-many-patients-abandon-care/>
  10. AMA prior authorization (PA) physician survey, accessed July 18, 2025,  
[https://www.akleg.gov/basis/get\\_documents.asp?session=33&docid=33619](https://www.akleg.gov/basis/get_documents.asp?session=33&docid=33619)
  11. How much do prior authorizations cost you? - Physicians Practice, accessed July 18, 2025,  
<https://www.physicianspractice.com/view/how-much-do-prior-authorizations-cost-you->
  12. Prior Authorization Statistics: The Impact of Prior Authorizations - TRIARQ Health, accessed July 18, 2025,  
<https://triarghealth.com/blog/prior-authorization-statistics>
  13. Medicare Advantage Insurers Made Nearly 50 Million Prior Authorization Determinations in 2023 | KFF, accessed July 18, 2025,  
<https://www.kff.org/medicare/issue-brief/nearly-50-million-prior-authorization-requests-were-sent-to-medicare-advantage-insurers-in-2023/>
  14. As prior authorization burden grows, so does momentum for change, accessed July 18, 2025,  
<https://www.ama-assn.org/practice-management/prior-authorization/prior-authorization-burden-grows-so-does-momentum-change>
  15. Providers & Payers: Prepare Now for CMS Prior Authorization Final Rule - HIT Consultant, accessed July 18, 2025,  
<https://hitconsultant.net/2025/07/11/providers-payers-prepare-now-for-cms-prior-authorization-final-rule/>
  16. CMS Interoperability and Prior Authorization Final Rule CMS-0057-F, accessed July 18, 2025,  
<https://www.cms.gov/newsroom/fact-sheets/cms-interoperability-and-prior-authorization-final-rule-cms-0057-f>
  17. AMA prior authorization (PA) physician survey - American Medical Association, accessed July 18, 2025,  
<https://www.ama-assn.org/system/files/prior-authorization-survey.pdf>
  18. PRIOR AUTHORIZATION, accessed July 18, 2025,  
<https://ndlegis.gov/sites/default/files/committees/68-2023/25.5089.03000appendixi.pdf>

19. MGMA Poll Shows Need for Prior Authorizations Continues to Increase - VMO Tech, accessed July 18, 2025,  
<https://vmotech.com/mgma-poll-shows-need-for-prior-authorizations-continues-to-increase/>
20. Prior Authorizations and the Adverse Impact on Continuity of Care, accessed July 18, 2025,  
<https://www.ajmc.com/view/prior-authorizations-and-the-adverse-impact-on-continuity-of-care>
21. Prior authorization: How it evolved, why it burdens physicians and patients, and the promise of AI - Medical Economics, accessed July 18, 2025,  
<https://www.medicaleconomics.com/view/prior-authorization-history-burden-ai-future>
22. 2022 MGMA Regulatory Burden Report FINAL, accessed July 18, 2025,  
<https://www.mgma.com/getkaiasset/b7e88b99-8e93-44a9-8144-725ca956089e/10.11.2022-MGMA-Regulatory-Burden-Report-FINAL.pdf>
23. Virtually all medical groups say payer prior authorization requirements aren't improving, accessed July 18, 2025,  
<https://www.mgma.com/mgma-stats/virtually-all-medical-groups-say-payer-prior-authorization-requirements-aren-t-improving>
24. A Guide to Relieving Administrative Burden: Prior Authorization - AAFP, accessed July 18, 2025,  
<https://www.aafp.org/pubs/fpm/issues/2023/1100/prior-authorization.html>
25. Prior authorization denials up big in Medicare Advantage | American Medical Association, accessed July 18, 2025,  
<https://www.ama-assn.org/practice-management/prior-authorization/prior-authorization-denials-big-medicare-advantage>
26. IT'S TIME TO FIX PRIOR AUTHORIZATION - Massachusetts Medical Society, accessed July 18, 2025,  
<https://www.massmed.org/prior-authorization-fact-sheet/>
27. A Strategic Checklist for RCM Directors to Tackle Prior Authorization Bottlenecks, accessed July 18, 2025,  
<https://www.billingparadise.com/blog/rcm-directors-prior-authorization-checklist/>
28. Top 5 Prior Authorization Challenges - Referral MD, accessed July 18, 2025,  
<https://getreferralmd.com/5-reasons-why-prior-authorizations-are-challenging/>
29. Prior authorization changes coming in June - The Record, accessed July 18, 2025,  
[https://www.bcbsm.com/content/dam/microsites/corpcomm/provider/the\\_record/2023/apr/Record\\_0423d.shtml](https://www.bcbsm.com/content/dam/microsites/corpcomm/provider/the_record/2023/apr/Record_0423d.shtml)
30. Prior Authorization Is Top Administrative Challenge of 2023 - Oncology Nursing News, accessed July 18, 2025,  
<https://www.oncnursingnews.com/view/prior-authorization-is-top-administrative-challenge-of-2023>
31. Approximately 80% of physicians also said prior authorizations at least sometimes result in treatment abandonment - NCDS Medical Billing, accessed July 18, 2025,

- <https://www.ncdsinc.com/statistic/approximately-80-of-physicians-also-said-prior-authorizations-at-least-sometimes-result-in-treatment-abandonment/>
32. Toolkit: Addressing the Administrative Burden of Prior Authorization | ACP Online, accessed July 18, 2025,  
<https://www.acponline.org/advocacy/state-health-policy/toolkit-addressing-the-administrative-burden-of-prior-authorization>
  33. New ASTRO survey finds that prior authorization delays lead to serious harm for people with cancer, accessed July 18, 2025,  
<https://www.astro.org/news-and-publications/news-and-media-center/news-releases/2024/new-astro-survey-finds-that-prior-authorization-delays-lead-to-serious-harm-for-people-with-cancer>
  34. The Costly Lever of Prior Authorization - 4sight Health, accessed July 18, 2025,  
<https://www.4sighthealth.com/the-costly-lever-of-prior-authorization/>
  35. The High Cost of Denials: How Prior Authorization Challenges Are Draining Your Bottom Line - NYX Health, accessed July 18, 2025,  
<https://nyxhealth.com/the-high-cost-of-denials-how-prior-authorization-challenges-are-draining-your-bottom-line/>
  36. Health systems plagued by payer-takeback schemes, 110000 denials, accessed July 18, 2025,  
<https://www.ama-assn.org/practice-management/prior-authorization/health-systems-plagued-payer-takeback-schemes-110000>
  37. Five Revenue Cycle Metrics Profitable Practices Are Measuring - R1 RCM, accessed July 18, 2025,  
<https://www.r1rcm.com/articles/5-revenue-cycle-metrics-profitable-practices-are-measuring/>
  38. Effective Pre-Authorization Processes to Reduce Claim Denials - EZClaim, accessed July 18, 2025,  
<https://ezclaim.com/blog/effective-pre-authorization-processes-to-reduce-claim-denials/>
  39. Reasons for Prior Authorization Denials & How to Reduce Rates - DataMatrix Medical, accessed July 18, 2025,  
<https://datamatrixmedical.com/reasons-for-prior-authorization-denials/>
  40. Prior authorization delays care—and increases health care costs | American Medical Association, accessed July 18, 2025,  
<https://www.ama-assn.org/practice-management/prior-authorization/prior-authorization-delays-care-and-increases-health-care>
  41. Perceptions of prior authorization burden and solutions - PMC, accessed July 18, 2025, <https://pmc.ncbi.nlm.nih.gov/articles/PMC11425057/>
  42. A Review on the Role of Prior Authorization in Healthcare and Future Directions for Reform, accessed July 18, 2025,  
<https://hmpi.org/2024/04/12/a-review-on-the-role-of-prior-authorization-in-healthcare-and-future-directions-for-reform/>
  43. CAQH Index Report, accessed July 18, 2025,  
[https://www.caqh.org/hubfs/43908627/drupal/2024-01/2023\\_CAQH\\_Index\\_Report.pdf](https://www.caqh.org/hubfs/43908627/drupal/2024-01/2023_CAQH_Index_Report.pdf)

44. CAQH Index Report, accessed July 18, 2025,  
[https://www.caqh.org/hubfs/Index/2024%20Index%20Report/CAQH\\_IndexReport\\_2024\\_FINAL.pdf](https://www.caqh.org/hubfs/Index/2024%20Index%20Report/CAQH_IndexReport_2024_FINAL.pdf)
45. Administrative Transaction Costs by Provider Specialty - CAQH, accessed July 18, 2025,  
[https://www.caqh.org/hubfs/CAQH%20Insights\\_2023%20Index%20Report\\_Provider%20Specialty%20Issue%20Brief\\_Final.pdf](https://www.caqh.org/hubfs/CAQH%20Insights_2023%20Index%20Report_Provider%20Specialty%20Issue%20Brief_Final.pdf)
46. 2023 CAQH Index Report: Insights for Healthcare Providers - UHIN .org, accessed July 18, 2025, <https://uhin.org/blog/caqh-index-2023-providers/>
47. 7 Common Prior Authorization Hurdles and How to Overcome Them | CoverMyMeds, accessed July 18, 2025,  
<https://insights.covermymeds.com/healthcare-technology/prior-authorization/common-prior-authorization-hurdles-and-how-to-overcome-them>
48. common reasons prior authorization gets denied - Healthcare Outsourcing Services, accessed July 18, 2025,  
<https://staffingly.com/common-reasons-prior-authorization-gets-denied-in-healthcare/>
49. Understanding the Common Reasons for Denial of Prior Authorizations and How Automation Can Mitigate These Issues | Simbo AI, accessed July 18, 2025,  
<https://www.simbo.ai/blog/understanding-the-common-reasons-for-denial-of-prior-authorizations-and-how-automation-can-mitigate-these-issues-742712/>
50. Top Reasons for Prior Authorization Denials and How to Avoid Them - expEDlum, accessed July 18, 2025,  
<https://www.expedium.net/blog/top-reasons-for-prior-authorization-denials-and-how-to-avoid-them/>
51. Precertification, Denials and Appeals: Reducing the Hassles | AAFP, accessed July 18, 2025, <https://www.aafp.org/pubs/fpm/issues/2006/0600/p45.html>
52. Why Proper Documentation Matters for Prior Authorization - Healthcare Outsourcing Services, accessed July 18, 2025,  
<https://staffingly.com/why-is-proper-documentation-key-to-a-successful-prior-authorization-submission/>
53. How to Avoid Denials and Improve Approvals For Prior Authorization - Practolytics, accessed July 18, 2025,  
<https://practolytics.com/blog/how-to-avoid-denials-and-improve-approvals-for-prior-authorization/>
54. Claims Denials and Appeals in ACA Marketplace Plans in 2023 - KFF, accessed July 18, 2025,  
<https://www.kff.org/private-insurance/issue-brief/claims-denials-and-appeals-in-aca-marketplace-plans-in-2023/>
55. KFF: Plans on Healthcare.gov denied 20% of claims in 2023, accessed July 18, 2025,  
<https://www.fiercehealthcare.com/payers/kff-plans-healthcaregov-denied-20-claims-2023>
56. The Ultimate Guide to Prior Authorization - Myndshft, accessed July 18, 2025,  
<https://www.myndshft.com/the-ultimate-guide-to-prior-authorization/>



57. 4 Ways Payers Can Simplify Prior Authorization - Medecision, accessed July 18, 2025, <https://www.medecision.com/simplify-prior-authorization/>
58. Prior Authorization for Healthcare Payers: Process, Challenges, and Solutions - PCH Global, accessed July 18, 2025, <https://pchhealth.global/blog/prior-authorization-healthcare-payers-process-challenges-and-solutions>
59. Key Challenges in Prior Authorization: Are You Ready to Overcome Them? - Healthcare Outsourcing Services, accessed July 18, 2025, <https://staffingly.com/prior-authorization-challenges-overcoming-strategies/>
60. specialty medications prior authorization bottleneck - Healthcare Outsourcing Services, accessed July 18, 2025, <https://staffingly.com/specialty-medications-prior-authorization-bottleneck/>
61. How Slow Prior Authorizations Harm Patients: A Hidden Crisis in Healthcare, accessed July 18, 2025, <https://www.productiveedge.com/blog/how-slow-prior-authorizations-harm-patients-a-hidden-crisis-in-healthcare>
62. A Look into Peer to Peer - Prior Authorization Certified Specialist, accessed July 18, 2025, <https://www.priorauthtraining.org/a-look-into-peer-to-peer/>
63. New KFF Report: More MA Prior Authorizations, Appeals Remain Successful - LeadingAge, accessed July 18, 2025, <https://leadingage.org/new-kff-report-more-ma-prior-authorizations-appeals-remain-successful/>
64. KFF: MA insurers made nearly 50 million prior authorization determinations in 2023 | AHA News - American Hospital Association, accessed July 18, 2025, <https://www.aha.org/news/headline/2025-01-29-kff-ma-insurers-made-nearly-50-million-prior-authorization-determinations-2023>
65. Medicare Advantage insurers ranked by prior authorization denial rates | 2023, accessed July 18, 2025, <https://www.beckerspayer.com/payer/medicare-advantage-prior-authorization-how-insurers-stack-up/>
66. www.beckerspayer.com, accessed July 18, 2025, <https://www.beckerspayer.com/payer/medicare-advantage-prior-authorization-how-insurers-stack-up/#:~:text=Centene%20and%20CVS%20Health%20had.to%20a%20report%20from%20KFF.>
67. CMS Interoperability and Prior Authorization Final Rule (CMS-0057-F), accessed July 18, 2025, <https://www.cms.gov/priorities/burden-reduction/overview/interoperability/policies-and-regulations/cms-interoperability-and-prior-authorization-final-rule-cms-0057-f/cms-interoperability-and-prior-authorization-final-rule-cms-0057-f>
68. Final Prior Authorization Rules Look to Streamline the Process, but Issues Remain - KFF, accessed July 18, 2025, <https://www.kff.org/private-insurance/issue-brief/final-prior-authorization-rules-look-to-streamline-the-process-but-issues-remain/>
69. The Consequences and Future of Prior-Authorization Reform - PMC, accessed July 18, 2025, <https://pmc.ncbi.nlm.nih.gov/articles/PMC10676707/>

70. Understanding the Prior Authorization API: Requirements, deadlines, benefits and trends, accessed July 18, 2025,  
<https://fire.ly/blog/understanding-the-prior-authorization-api/>
71. Understanding the Payer-to-Payer API: Requirements, deadlines, benefits and trends, accessed July 18, 2025,  
<https://fire.ly/blog/understanding-the-payer-to-payer-api/>
72. How AI Can Predict & Prevent Insurance Claim Denials - Enter.Health, accessed July 18, 2025,  
<https://www.enter.health/post/ai-predict-prevent-insurance-claim-denials>
73. Denial Prediction Using Machine Learning | WhiteSpace Health, accessed July 18, 2025, <https://whitespacehealth.com/blogs/denial-prediction-using-ml/>
74. AI-powered automation of appealing prior authorization denials with John Snow Labs' Medical LLM, accessed July 18, 2025,  
<https://www.johnsnowlabs.com/ai-powered-automation-of-prior-authorization-denials-with-john-snow-labs-medical-llm-as-a-judge/>
75. Automated Prior Authorization Solutions | Agentic AI | RPA - Flobotics, accessed July 18, 2025,  
<https://flobotics.io/rcm-automation/prior-authorization-automation/>
76. Prior Authorization Denials Reduced to 0.21%: How RPA is Transforming Healthcare, accessed July 18, 2025,  
<https://www.jorie.ai/post/prior-authorization-denials-reduced-to-0-21-how-rpa-is-transforming-healthcare>
77. Epic EHR vs Oracle Health (formerly Cerner) 2025 comparison, accessed July 18, 2025, <https://www.ehrinpractice.com/epic-ehr-vs-cerner-ehr-comparison.html>
78. Epic EHR Integration vs. Cerner: Find the Right Fit - Dash Technologies Inc, accessed July 18, 2025,  
<https://dashtechinc.com/blog/epic-ehr-integration-vs-cerner-which-ehr-system-is-better-in-2025/>
79. Cerner vs. Epic EHR (2025 Comparison) - Forbes, accessed July 18, 2025,  
<https://www.forbes.com/advisor/business/software/cerner-vs-epic/>
80. Availity is Already Automating Prior Auths - YouTube, accessed July 18, 2025,  
<https://www.youtube.com/watch?v=OuS9rwKnnUY>
81. Availity is Already Automating Prior Auths | Healthcare IT Today, accessed July 18, 2025,  
<https://www.healthcareittoday.com/2025/07/17/availity-is-already-automating-prior-auths/>
82. Strengthening payer-provider relations through strategic data use - Wolters Kluwer, accessed July 18, 2025,  
<https://www.wolterskluwer.com/en/expert-insights/strengthening-payer-provider-relations-through-strategic-data-use>
83. How Prior Authorization Impacts Care, Cost, and Clinical Workflows?, accessed July 18, 2025,  
<https://staffingly.com/how-prior-authorization-impacts-care-cost-and-clinical-workflows/>
84. Best Practices for Prior Authorizations: Tailoring Solutions by Specialty - NYX



- Health, accessed July 18, 2025,  
<https://nyxhealth.com/best-practices-for-prior-authorizations/>
85. The Ultimate Guide to Measuring Efficiency in Prior Authorization - Portiva, accessed July 18, 2025,  
<https://portiva.com/measuring-efficiency-in-prior-authorization/>
  86. [Blog] Prior Authorization Best Practices Reduce Extreme Administrative Burdens - Infix Healthcare, accessed July 18, 2025,  
<https://www.infix.com/blog/prior-authorization-best-practices-reduce-extreme-administrative-burdens/>
  87. Understanding the Role of a Prior Authorization Specialist Connex, accessed July 18, 2025,  
<https://connexglobal.com/understanding-the-role-of-a-prior-authorization-specialist/>
  88. The Crucial Role of Prior Authorization Training in Healthcare - Portiva, accessed July 18, 2025,  
<https://portiva.com/why-prior-authorization-training-is-crucial-in-healthcare/>
  89. Hospital Prior Authorization Management: 5 Best Practices - valer.health, accessed July 18, 2025,  
<https://valer.health/hospital-prior-authorization-management/>
  90. UnitedHealthcare National Gold Card program - UHCprovider.com, accessed July 18, 2025,  
<https://www.uhcprovider.com/en/prior-auth-advance-notification/gold-card.html>
  91. Fixing prior auth: These critical changes must be made | American Medical Association, accessed July 18, 2025,  
<https://www.ama-assn.org/practice-management/prior-authorization/fixing-prior-auth-these-critical-changes-must-be-made>