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Medicare Advantage Becoming a Disadvantage with Use of Artificial Intelligence in Prior Authorization Review

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Abstract

Reported instances of AI-assisted, blanket denials of coverage have increased in recent years, particularly for Medicare Advantage plans, resulting in insurers facing criticism, class action lawsuits, investigations from Congress, and key providers leaving their networks. To ensure a fair healthcare system, action is needed to improve transparency in how AI tools approve or deny claims, and address provider burnout and patient burden due to navigating prior authorization requests and appeals.

Introduction

Artificial intelligence (AI) algorithms are playing a larger role[1] in directing patient care. Insurers are implementing AI algorithms to accelerate **prior authorization (PA)**[2] and **utilization management (UM)** reviews,[3] which can potentially benefit patients in the form of rapid access to care or treatment. However, there are concerning reports that the use of AI algorithms has inappropriately denied services that clinicians deem medically necessary.[4] While some denials may be justified to reduce wasteful spending on low-value care,[5] other denials have been deemed wrongful, unreasonable, or harmful for patients.[6] Such denials have delayed time-sensitive treatment,[7] significantly spent down a patient's life and family savings,[8] and/or worsened already deteriorating health.[9]

These denials can more broadly affect older (≥65 years) populations in the United States. More than half (54%)[10] of eligible Medicare beneficiaries are enrolled in **Medicare Advantage (MA)** plans (see Box 1). A recent Congressional report[11] concluded that denial rates in UnitedHealthcare, CVS, and Humana's MA plans jumped significantly after increased uses of AI. Because MA claims face a higher denial and approval delay rate compared to non-MA claims, health systems are increasingly reluctant to participate in MA plans as in-network providers. For example, a Minnesota healthcare organization, HealthPartners, announced that it would no longer accept UnitedHealthcare's MA plans starting in 2025 due to the denial rate being 10 times higher[12] than other insurers, although ultimately the parties worked out a deal.[13]

These high-profile decisions to stop participating in MA plans are concerning because of the critical role these plans play in access to care, especially for those living in rural areas served by health systems like Essentia Health.[14] These plans also affect MA beneficiaries seeking engagement in pragmatic trials for innovative therapies,[15] whereas clinical or standard of care procedures performed in such trials might rely on specified payer coverage for those procedures.

In this article, we examine real-world challenges associated with AI-driven PA decision-making, especially for MA beneficiaries. We highlight key priorities that health insurers and regulators should consider that allow them to leverage opportunities that increase transparency, reduce provider burnout and patient burden, and make AI-driven coverage determination processes and policies fair and trustworthy.

Box 1: How Medicare Advantage Works

Coverage Requirements:

Medicare Advantage (Part C) plans are required to cover all services covered by Traditional Medicare (Part A and B), but are allowed to offer additional benefits and cannot deny coverage of "basic benefits" available in Traditional Medicare.

Prior Authorization:

Medicare Advantage Organizations (MAO) are "currently required to provide notifications to enrollees of decisions regarding coverage, called organization determinations, which include decisions regarding prior authorization." In order to support timely decisions and communications of those decisions, the CMS MAO Final Rule requires MAOs "to notify the enrollees of its prior authorization determination as expeditiously as the enrollee's health condition requires, but no later than 7 calendar days after the organization receives the request for a standard organization determination for a medical item or service subject to the prior authorization rules at 42 CFR 422.122."

Claims Appeals:

Appeals in a MA plan is a 5-level process. If a beneficiary disagrees with the decision made at any level of the process, they can generally go the next level.

- Level 1: reconsideration from the plan.
- Level 2: review by an Independent Review Entity (IRE).
- Level 3: opportunity to receive a decision by the Office of Medicare Hearings and Appeals (OMHA).
- Level 4: review by the Medicare Appeals Council.
- Level 5: judicial review in federal district court.

As noted in the CMS MAO Final Rule, under existing MA rules, "a failure to meet the deadline by which an organization determination must be [issued], including a request for prior authorization, constitutes a denial that can be appealed to the next level (reconsideration by the MAO)."

Regulation:

MA plans are generally regulated by the federal government. Courts have typically held that states are preempted from regulating MA offerings. States, however, can regulate the insurers who offer such plans.

Challenging Denied Coverage: A Legal Battle

KFF research shows that in 2023, MA plans fully or partially denied 3.2 million PA requests out of a total of 50 million.[16] Research also indicates that the share of MA PA requests that were denied grew sharply, from 5.6-5.8% in 2019-2021 to 7.4% in 2022.[17] The PA denial rate for post-acute care for UnitedHealthcare in particular went from 10.0% in 2020, to 16.3% in 2021, to 22.7% in 2022, a time during which it was implementing several initiatives to automate the process.[18] While denials can be appealed, the current appeal rate is one in ten.[19] While the five level claims appeal process described in Box 1 might ideally facilitate a fair and impartial review, this rather low appeals rate might reflect another reality that should be more closely examined. That is, providers and patients might require extra time, energy, resources, and bandwidth that often lack to successfully appeal a debatable coverage determination.[20]

As a result of the growing momentum around increased PA denials, giant health insurers such as UnitedHealthcare have been subject to lawsuits. Plaintiffs claim that insurers use AI algorithms with high error rates and allegedly illegally override physician assessments.[21] For example, estates of patients who had post-acute care coverage terminated filed a class action lawsuit against UnitedHealthcare, *Lokken v. UnitedHealth Group Inc., et al*[22] alleging inaccuracies in UnitedHealthcare's AI-backed algorithm, called "nH Predict",[23] which allegedly has a 90% error rate due to lack of human review in the coverage denial process and had over 80% of the prior authorization denials being reversed on appeal (see Box 2). The *Lokken* plaintiffs scored a partial victory when U.S. District Court Judge Tunheim allowed the case to move forward on some of the plaintiffs' claims. The opinion acknowledged the allegedly defective appeals process, the great harm that plaintiffs allegedly suffered, and how laborious it is for older adults in health plans to try to go through all steps of the appeals process.[24] This process, often financially cumbersome, can lead to serious health complications or even death before a final decision on the appeal is reached.[25] According to Judge Tunheim, the plaintiffs' claims effectively arose out of the evidence of coverage documents, which require assessing "whether [the defendant] complied with its statement that claim

decisions would be made by 'clinical services staff' and 'physicians' when it allegedly used artificial intelligence."[26]

This decision is likely to have a significant impact on other similar lawsuits. First, a court may waive the requirement to exhaust administrative remedies (i.e., remedies involving extensive or undeterminable time spent waiting for the entire appeals process to be completed before petitioning the court). A waiver would be most welcomed in cases where exhausting administrative remedies could further delay care or lead to futile outcomes while awaiting a decision. This is especially true for elderly patients or patients undergoing treatment for life-threatening or rapidly progressing illness, where timing of diagnosis, treatment, and care maintenance could mean life, death, irreparable harm, or permanent disability. Second, this decision pushes health insurers to treat patient care and safety under a promise of good faith and fair dealing, requiring greater oversight of health plans.[27] Finally, this decision also indicates that courts in similar cases will likely focus on standards in the insurer's own written documents and not invoke laws such as the Medicare Act, which separately are responsible for regulating how coverage decisions are made and what services are covered.[28]

Lawsuits are pending against other health insurers,[29] and we expect even more litigation moving forward amid broad political support for AI implementation in government-sponsored health plans.[30] Litigation can be a powerful tool for reacting to concerning developments, and hopefully, *Lokken* and future lawsuits can address AI-driven overuse of prior authorization. But litigation is a reactive tool, and in order to set appropriate guardrails on the use of AI in coverage determinations, thoughtful and responsive legislation and regulation at both the federal level of MA plans and at the state level of insurers offering these plans are needed.

Box 2: Example of How AI Prior Authorization Tools Are Used

Plaintiffs in the *Lokken* complaint allege that "the nH Predict AI model attempts to predict the amount of post-acute care a patient 'should' require, pinpointing the precise moment when defendants will cut off payment for a patient's treatment," supplanting real doctors' recommendations and without considering an individual patient's needs. If the model "determines that the patient shouldn't require any post-acute care, it recommends denial of prior authorization." As explained in the complaint, the nH Predict AI model "compare[s] a patient's diagnosis, age, living situation, and physical function to similar patients in a database of six million patients it compiled over the years of working with providers to predict patients' medical needs, estimated length of stay, and the target discharge date" – as can be seen in the sample nH Predict Outcome sheet (a report that is provided to a patient's health plan for consideration in authorizing care and treatment) in the complaint.

Legal and Regulatory Efforts to Foster Responsible AI Use in Health Policy

Using AI to create barriers to necessary care goes against federal regulations that emphasize responsible AI use. The **HHS Office of Civil Rights (OCR)** clarified in 2024 that the nondiscrimination principles under Section 1557 of the Affordable Care Act apply to the use of AI and patient care decision support tools in clinical care,[31] with PA being a key example.[32] Similarly, the 2024 Senate AI Working Group acknowledged the need for legislation that strengthens "transparency for providers and the public about the use of AI in medical products and clinical support services, including the data used to train the AI models."[33]

Additionally, the **Centers for Medicare and Medicaid Services (CMS)**[34] clarified that Medicare services must be provided equitably, without discrimination, including MA services using AI.[35] In keeping with this

mandate, CMS[36] requires **Medicare Advantage Organizations (MAOs)** to ensure transparency and fairness in coverage decisions by disclosing to the beneficiaries how AI algorithms inform clinical decisions, including data sources, methodology, and potential biases. CMS, in its 2024 FAQs[37] also clarified that, while MA plans can use AI to make coverage determinations, "an algorithm that determines coverage based on a larger data set instead of the individual patient's medical history, the physician's recommendations, or clinical notes" would not be compliant with federal law protecting Medicaid and Medicare beneficiaries.[38] CMS also noted that, before an MAO decides to issue an adverse decision, a physician or another appropriate healthcare professional with expertise must review whether that service is medically necessary.[39]

It is unclear how much or what form of healthcare AI regulation and enforcement the current Administration will require or recommend, especially in the context of healthcare anti-discrimination policies.[40] However, UnitedHealthcare recently confirmed that the Department of Justice is investigating its MA practices,[41] which could include AI-driven PA. It will also be interesting to see how CMS incorporates its past regulations as it begins to utilize AI-driven PA in MA through its recently announced **WISeR (Wasteful and Inappropriate Service Reduction)** model.[42]

A 2024 **National Association of Insurance Commissioners (NAIC)** report[43] urges state regulators to extend transparency "to disclosures about the data used to develop, train, and test the AI tools."[44] Recently, there has been legislative momentum on a state level around the issue of regulating transparency in AI; however, regulatory efforts focused on AI in healthcare are still nascent. California adopted Senate Bill 1120 "Health care coverage: utilization review,"[45] which requires health plans and insurers that use AI products for the purpose of utilization review or management to ensure compliance with specified requirements, including that the tool bases its determination on specified information and is fairly and equitably applied.[46]

Policy Recommendations

In this rapidly evolving landscape, regulators are struggling to keep pace.[47] We provide policy recommendations, both federally and state-focused, to promote and inform processes to secure ethical and responsible uses of AI in the context of MA, designed to address low transparency as well as provider burnout and patient burden – two pressing issues stemming from either overuse or inappropriate uses of AI in PA.

Transparency

Much regulatory focus to date has been on fostering disclosure to patients on when and how algorithmic tools are used in PA decisions, and transparency about the development and testing of those tools. Unfortunately, there is still significant information asymmetry in this area. Insurershave faced significant accusations of wrongful denials.[48] Some examples of transparency issues unique in this space include the use of software such as PxDx,[49] with an average review time of 1.2 seconds that clearly does not allow for meaningful human confirmation,[50] and denying patients access to their nH Predict reports because it is considered proprietary information.[51]

Many AI tools rely heavily on patterns found within training data,[52] likely historical data from either the insurer or third-party utilization management companies, rather than active care providers, which may build in historical biases and inappropriate denial causes. Third-party companies like EviCore that partner with insurers offer a more streamlined and profitable PA review process through EviCore's AI-backed algorithm.[53] An investigation[54] into this arrangement showed that EviCore can make small tweaks to its algorithm to boost the number of requests sent for review to their in-house doctors and nurses. This practice, which is known as "turning the dial,"[55] involves making small adjustments to the decision-making process, such as adjusting the threshold score (the chance of approval), and all requests falling under that threshold are sent for review. Therefore, as the dial turns and places more requests below the threshold score, and as

the number of reviews increases following more clinical encounters to maximize fee-for-service revenue among a beneficiary population, the result is more patients facing denials at a faster AI-driven rate.[56]

There is little need to reinvent the wheel, as two existing regulatory structures could help increase transparency for AI-driven PA. For instance, the **ASTP/ONC HTI-1 Final Rule (Assistant Secretary for Technology Policy/Office of the National Coordinator for Health Information Technology's final rule on Health Data, Technology, and Interoperability)** established first-of-its-kind transparency requirements but is restricted to specific algorithms that are part of ONC-certified health IT.[57] The goal was to allow "clinical users to access a consistent, baseline set of information about the algorithms they use to support their decision making and to assess such algorithms for fairness, appropriateness, validity, effectiveness, and safety."[58] CMS could require these or similar transparency measures, potentially paired with a certification entity named or appointed to develop and implement standards for the use of AI in PA and coverage determinations. To ensure practical utility of those standards, this certification entity should comprise a public-private partnership or a private group akin to **Joint Commission on Accreditation of Healthcare Organizations (JCAHO).**

For transparency, state insurance departments or CMS should require insurers to publicly disclose their PA practices, inclusive of denial and appeal rates. For example, insurers should prominently disclose to current and prospective MA beneficiaries their percentage of PA requirements to overall claims, percent denials during PA, percent **peer-to-peer (P2P)** reviews during PA and average duration of P2P review, percent total PA appeals (some of which are already required). This practice might also serve as a business advantage for plans monitoring and reporting such information to make their products and plans more competitive and attractive to prospective beneficiaries and participating providers, and their business practices more transparent to the public writ large.

Provider Burnout and Patient Burden

Many AI tools are being adopted in healthcare to address provider burnout and streamline time-consuming processes,[59] including drafting PA request letters. However, an unreasonably high number of claims denials and increasing PA requirements may actually end up increasing the administrative burden on the providers. Results of a survey by the American Medical Association[60] showed that "doctors and their staff spend an average of 13 hours per week submitting prior-authorization requests." Approximately half of those surveyed confirmed[61] that "when they didn't appeal a claim denial, it was at least in part because they didn't have the time or resources for the insurance company's lengthy appeals process." 75% of the physicians also reported that PA denials have somewhat or significantly increased over the past five years, with 89% of the physicians feeling that the practice of requiring PA itself has also increased physician burnout.[62]

To reduce provider burnout and patient burden, state regulators should guide payers around appropriate uses of PA, including uses of AI in the PA process, in complex care cases that are common among the MA population. For instance, complex and time-consuming PA authorization processes that involve extensive P2P reviews, routinely with peers who are either unqualified or untrained in the clinical or therapeutic area under question, should be disincentivized or eliminated. Additionally, state insurance departments or CMS should develop guidance on the appropriate number of PA requests for insurers and amount of time spent on P2P or other reviews to ensure timely and uninterrupted care delivery, responsible context of AI use in PA, and minimal to no patient and provider burden. For example, if PA requests on behalf of insurers are appropriately capped in cases of complex medical care or patient need, such caps might disincentivize inappropriate uses of AI and reward or incentivize smarter uses of AI that enable patient care that is just-in-time or right the first time. MA plans that are incentivized to develop or adopt AI/algorithms that rapidly account for the latest relevant and reliable evidence and individual/personal health history (i.e., as obtained via a patient's **electronic health record (EHR)**, self-reported data, etc., supported by data interoperability and information collection prompts) during the PA process could create substantial value for patients and caregivers with or who anticipate complex care needs.

Since increased uses of AI in PA decision-making is suspected to result in higher denial rates, in some cases 16 times higher than typical,[63] limiting the number of allowable, or penalizing high rates of, PA requests could reduce automatic batch denials and incentivize careful and nuanced review of complex, time-sensitive cases. State regulators could work with CMS to create, augment, or redesign an internal database to monitor and report PA approval and denial patterns, as well as surveil potential patterns of discrimination. That would include monitoring how certain programs (e.g., gold card programs that allow certain, qualified physicians to sidestep prior authorization requirements for their patients) impact care for lower-income, chronically ill or otherwise vulnerable patients.

Call to Action

Widespread and increasing adoption of AI in PA has particularly harmful consequences for older adults. Renewed legislative focus on PA in Medicare Advantage on a federal level is crucial and must include efforts to promote transparency and avoid provider burnout and patient burden. In June 2024, a bipartisan bill titled the *Improving Seniors' Timely Access to Care Act of 2024*[64] was reintroduced in the Congress but failed to pass in the Senate. In addition, the 2025 budget reconciliation bill, which nearly included a ten-year moratorium on state regulation of AI, would have undercut nearly every effort to better protect MA enrollees from AI overuse or misuse. Therefore, we call for regulations aimed at improving transparency around insurer PA practices and incentivizing uses of AI that make the PA process more timely, evidence-based, and aligned with unique patient needs. Administrative and regulatory actions focused on responsible and smarter uses of AI that prioritize meeting complex patient care needs while limiting low-value care, as determined based on the latest evidence and the patient record, will create value for patients, providers, and the health system writ large.

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