



 **PINC AI**<sup>™</sup>

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## **LESS INTERRUPTIVE, MORE INTUITIVE:**

Use Cases of How AI is Enhancing  
Clinical Decision Making

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Artificial intelligence's (AI) increasing sophistication makes the breadth of its applications across multiple industries difficult to quantify. Some form of AI is now used in nearly everything —from consumer products to financial investments and even transportation.<sup>1</sup>

As healthcare systems worldwide shift firmly into data-driven, value-based care delivery models, AI is fast proving indispensable to operational functions, payer/payor relationships and most notably, clinical decision making.<sup>2</sup>

Clinical decision-making processes have long been fraught with roadblocks, especially for already overburdened healthcare providers.<sup>3</sup> Excessive documentation requirements and subpar tools generate too many alerts, low follow rates, penalties for provider organizations, significant care variation, unnecessary care and ultimately lower care quality.

Fortunately, the ongoing development of advanced, AI-driven solutions is solving many of these problems.

## LET'S EXPLORE THE USE CASES IN WHICH AI IS ENHANCING CLINICAL DECISION MAKING IN THE PRESENT DAY.



**Artificial intelligence (AI):** The ability of a computer to carry out tasks like an intelligent being. AI machines can learn from experience and make decisions in ways that mimic humans.



**Machine learning (ML):** A subset of AI. It's the science of getting applications and systems to learn from data and improve their accuracy over time on their own. Machine-learning algorithms build models based on sample data to make predictions without being directly programmed to do so.



**Natural language processing (NLP):** Another subset of AI that's concerned with computers' understanding, interpreting and manipulating natural language (speech and free text).



# #1 Meeting the Appropriate Use Criteria (AUC) with the Protecting Access to Medicare Act (PAMA) Solution

The Centers for Medicare and Medicaid Services (CMS) established AUC to reduce financial waste and improve care quality by requiring the use of clinical decision support (CDS) tools when advanced imaging services are ordered for Medicare beneficiaries. These Qualified Clinical Decision Support Mechanisms (qCDSM) are intended to help ascertain if imaging orders are subject to AUC and if they comply with the guidelines. Following a couple of delays and extensions, PAMA's AUC requirements for advanced imaging services will start impacting provider reimbursements on Jan. 1, 2023.<sup>4</sup>

## *Artificial Intelligence Upgrading CDS Tools for PAMA*

The utilization of AI and NLP in qCDSM technology for AUC determination has resulted in a significant reduction of provider administrative burden and effort. Interruptive alerts and high data entry requirements are the primary features of legacy AUC qCDSMs that overburden providers, lead to errors and result in low recommendation adoption rates.

## Filling Gaps Left Open by Legacy AUC Solutions

### BENEFICIAL EHR INTEGRATION

Many qCDSMs are not integrated or interoperable with the electronic health record (EHR) software that providers use at the point of care.<sup>5</sup> This routinely forces providers to document patient data into the qCDSM tool before receiving recommendations.

Certain qCDSMs are able to utilize NLP and ML capabilities with select discreet and non-discreet (free text) fields in the patient's chart. This may prevent time-consuming double documentation AND allow for the qCDSM tool to rate an advanced imaging order as "appropriate" without the provider interacting with the tool.

### OTHER BENEFITS OF AI-DRIVEN CDS TOOLS

**Minimal data entry:** Because the AI reads information directly from the EHR it is integrated with, the CDS tools require minimal data entry from the user, allowing them to focus on what's important—the patient.<sup>6</sup>

**Error reduction:** The more data a CDS tool has access to and analyzes, the lower the chances of overdiagnosis or misdiagnosis errors. AI in CDS tools enables larger troves of data to be sifted through before recommendations are presented to the ordering provider —increasing accuracy.<sup>7</sup>

“We knew the architecture of their PAMA solution, and it was designed to be minimalist as it pertained to acquiring data from the user. We thought this was a major advantage for us.”

**DR. MARK BINSTOCK**

CHIEF MEDICAL INFORMATION OFFICER<sup>8</sup>

LARGE, MULTI-STATE HEALTH SYSTEM ON THE STANSON HEALTH PAMA SOLUTION

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### BOTTOM LINE

An AI-backed PAMA/AUC solution like PINC AI™ Clinical Intelligence—with fewer interruptions and direct integration with EHRs—modifies provider documentation positively. Better adoption and higher follow rates are natural results of using solutions that are accurate and require minimal data input, and healthcare organizations and systems can avoid penalties when adoption and follow rates are high.



# #2 Automated Prior Authorizations

Traditional prior authorization (PA) processes have multiple problems that overwhelm and slow providers and their ability to deliver treatment.

For one, it takes long hours—

**14.4**  
hours a week,  
on average

—to complete PA requests. In 2020, the AMA reported that 94% reported delays in care because of prior authorizations

**90%** said prior authorization has a negative effect on their patient outcomes

**30%** have seen adverse events that were the result of prior authorization delays

**21%** reported that their patients were hospitalized because of prior authorization delays that prevented necessary care

**79%** said prior authorization waiting periods can lead patients to abandon their course of treatment

- 1 Managing the PA process takes providers away from their patients and contributes to burnout.
- 2 PAs are also a direct drain on financial resources. The AMA reported that 30% of providers have hired staff primarily to manage PA cases.<sup>10</sup>

CDS-enabled electronic prior authorization tools are one step ahead by facilitating integration with hospital EHRs and payer adjudication systems. However, AI-backed technology like Stanson Health's automated PA solution modernizes the PA process and improves care continuity. The technology pushes things further and delivers a truly automated, seamless and fast prior authorization process. A typically weeklong process can be shortened to mere minutes.



## The Role of AI in Prior Authorization

ML and NLP applications embedded in electronic prior authorization (ePA) technology reduces provider administrative burden and decreases care delays, leading to improved outcomes. Just as important, decision-making processes in the payer back office can be sped up and eased, too.

### HOW?

#### Reading and understanding data:



Providers no longer need to do the double work of entering patient information into the EHR first and then again into the payer's system interface. Using NLP and ML, prior authorization technology can read certain information in the EHR and understand the patient's clinical scenario.

#### Extracting patient facts:



The greater part of clinical information is stored in unstructured text format. In one survey of U.S. hospitals that utilize EHRs, about 65 percent of their clinical data was recorded in unstructured text. But ML and NLP technology, like PINC AI™ Clinical Intelligence's automated PA solution, can extract clinical facts from unstructured EHR elements.<sup>11</sup>

### **BOTTOM LINE**

AI in automated ePA solutions helps payers get to decisions much faster, which is likely to result in increased provider satisfaction and improved outcomes through reduced treatment delay and abandonment. The heavy burden of PA is lifted from providers' shoulders, too. Hours and days spent on data entry and waiting are eliminated, and providers can focus squarely on their patients.



## CONCLUSION

Clinical decision making is integral to the patient care journey and is consequently a priority for innovators in the healthcare industry.

PINC AI™ Clinical Intelligence offers AI-driven clinical decision support solutions for PAMA, HCC, syndromic surveillance and ePA that help improve care quality, cut costs and reduce administrative burden. With PINC AI™ Clinical Intelligence's solutions, provider organizations and health systems can be sure that they're making decisions that improve outcomes, safeguard patient populations and comply with government regulatory requirements.

Expect to see artificial intelligence use cases in clinical decision making expand and increase in number just as its impact in existing use cases continuously improves.

**YOU CAN LEARN MORE ABOUT OUR AI-DRIVEN CDS SOLUTIONS AT [WWW.STANSONHEALTH.COM](http://WWW.STANSONHEALTH.COM).**

**LEARN MORE**

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