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Fully leveraged AI surpasses criteria-based utilization review

Hospitals need the right utilization review (UR) technology to secure all appropriate revenue. Criteria-based systems — such as first level review systems and platforms that use AI in less advanced ways — rely on fixed rules that aren't developed with physician advisor reviews in mind.

On the other hand, a fully leveraged AI solution designed specifically for case status reviews incorporates deep AI and comprehensive evidence-based research to offer a more accurate and efficient UR process.

4 key advantages of fully leveraged AI

Criteria-based systems can support UR, but they aren't a sufficient basis for a complete UR process. For example, approximately 4 million times, Optum physician advisors supporting clients have recommended a different inpatient/outpatient status than was identified by criteria-based review systems and processes. Fully leveraged AI solutions are superior in four key ways.

Criteria-based systems vs. fully leveraged AI

Criteria-based systems

- Handles simple cases
- Captures high-risk factors only
- Is built on first-level review (FLR) criteria
- Is limited to basic first-level sorting
- **Examples:** First-level review systems, rules-based AI technology

Fully leveraged AI

- Handles simple and ambiguous "gray" cases
- Captures high- and low-risk factors and physician intent
- Enables both complete initial case sorting and physician advisor review
- **Examples:** Optum Case Advisor

1

Fully leveraged AI understands physician meaning

Between 60-70% of clinical information within a patient record resides in the clinical text.

Criteria-based UR systems depend on statistics and discrete rules, but effective UR requires understanding physician judgement in documentation. Between 60 and 70% of clinical information within a patient record resides in the clinical text. Criteria-based systems can have difficulty understanding the intent behind this unstructured data.

Some criteria-based systems are beginning to use artificial intelligence as a glorified word search tool, but many of these tools aren't sophisticated enough for the job. They might recognize the terms "history of smoking" or "chest pain" in the patient record, but they aren't designed to understand the context of these phrases.
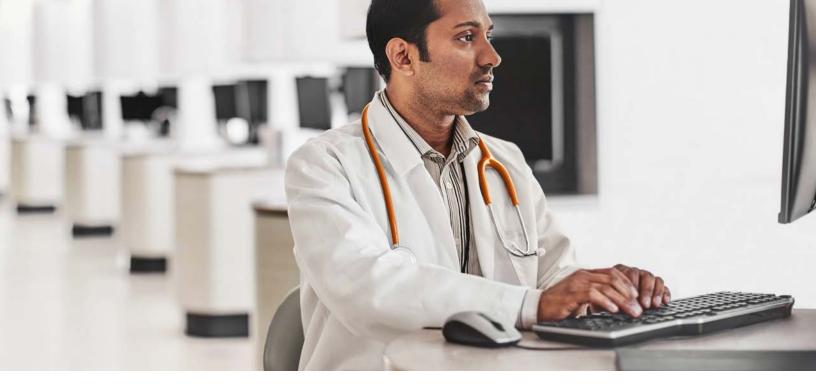
Fully leveraged AI incorporates more sophisticated and advanced technology. It interprets the meaning of physician documentation, and puts key terms found by AI into context. It applies a bi-directional processing methodology that not only recognizes key phrases, but also considers them in relation to high-risk factors and low-risk factors and the way they're used linguistically. For example, a fully leveraged AI solution would recognize that "no reported history of smoking" indicates an absence of smoking, while criteria-based systems are likely to see "history of smoking" and conclude that the patient smokes.

2

Fully leveraged AI learns from past reviews

Many criteria-based systems were designed for basic first-level sorting. They search for clinical high-risk factors and compare them against a set of rules to identify cases whose medical necessity is clearly either inpatient or outpatient. However, they are limited and aren't designed to address more complex "gray cases" with ambiguous patient status, such as cases involving dehydration, chest pain or lengths of stay less than two days. Many payer medical necessity denials come from these gray cases.

Fully leveraged AI addresses this gap by learning from the past. By reviewing thousands or millions of physician advisor reviews, fully leveraged AI learns to recognize the nuances of both high- and low-risk factors to better interpret physician intent for these gray cases. This results in more accurate hospital patient status determinations that lead to stronger revenue integrity and fewer denials compared to criteria-based systems.

3

Fully leveraged AI self-improves

While some criteria-based systems use AI to search patient records for key clinical data, they rely upon specific, predetermined rules individually coded by a software developer. Fully leveraged AI solutions, on the other hand, leverage deep neural networks to improve themselves by reviewing prior physician advisor reviews.

Each time a new batch of reviews is fed into the AI, it grows smarter by identifying new guidelines on its own based on patterns it recognizes. As a result, fully leveraged AI enables physician advisor reviews based on patterns developed and validated from real medical scenarios, not a programmer's set of rules.

4

Fully leveraged AI supports a full UR process

A fully leveraged AI can find and deliver key facts from patient records to physician advisors

Unlike criteria-based systems, fully leveraged AI accelerates and improves both initial case sorting and physician advisor reviews. A fully leveraged AI can find and deliver key facts from patient records to physician advisors, avoiding the need for them to pour through countless screens and pages. The extensive medical knowledge fully leveraged AI is built upon can further increase defensibility with payers.

This same AI functionality can also help physician advisors overturn concurrent denials during peer-to-peer reviews with payer medical directors and provide a foundation for appeal staff to craft retrospective appeal arguments. By supporting patient status both up front and after submission to payers, fully leveraged AI strengthens revenue integrity far more than the limited contribution of criteria-based systems.

Fully leveraged AI:
A better UR solution

While they can conduct basic case stratification with limited success, criteria-based systems aren't a sufficient basis for utilization review. Fully leveraged AI — combining citable evidence-based research, AI that learns from past reviews to recognize physician intent as documented and support for the entire UR process — is surpassing simple automation to truly enhance medical necessity accuracy and strengthen revenue integrity.

Learn how the fully leveraged AI in Case Advisor can modernize your UR process.
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