



# Think Tank: Gen AI Solutions for Better Revenue Cycle Outcomes

May 19, 2025

HFMA Texas State Annual Conference

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- SVP of Revenue Cycle Operations and Deployments at AKASA
- 25-year career in revenue cycle
- National and regional health systems, as well as numerous care settings and specialties



# Today's agenda

1. From automation to GenAI
2. GenAI 101: Why it matters
3. How GenAI is rewriting the playbook
4. Real talk at the tables
5. Top takeaways and next moves



Where is your organization currently in its generative AI journey within the revenue cycle?

1. Just starting to explore
2. Purchased a tool but not deployed yet
3. In implementation process
4. One or more tools deployed and in active use



What is the most significant pain point in your mid-cycle (particularly CDI and coding)?

1. Registration accuracy denials
2. Coding and clinical denials
3. Appeal writing / overturning denials
4. Staffing and inability to fill open roles

# > Ъ ŸŸ Р ФЖФ/Ф ή ŷс/Ф Фη О с/Фñ Р

- *Evolution of automation*
- *RPA*
- *AI and ML*



ABOUT **60%**

of healthcare financial leaders  
consider RPA to be a form of AI.

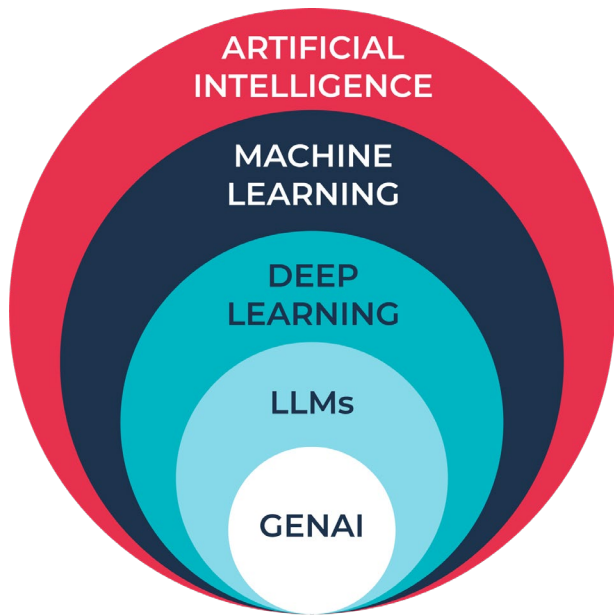
**It's *not*.**

Source: HFMA survey of ~600 CFOs and revenue cycle leaders at health systems across the U.S.



# A look at AI disciplines

**Artificial Intelligence** is computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and language translation.



**Machine Learning (ML)** studies the ability to improve performance based on experience. Instead of programming the computer, you teach it by showing it examples of what you want to do.

**Deep learning** is ML using deep neural networks. It teaches computers how to process data like humans do.

**Large language models (LLMs)** are a type of AI model that can understand complex language and reasoning at human levels. LLM foundation models are trained on massive piles of books, articles, and web resources. If something is written in human language, an LLM can interpret and model it.

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# Mid-cycle offers fast, efficient margin gains

**68%** of healthcare leaders  
believe that DRG optimization  
*is not a solved problem*

Source: AKASA, 2025

**MID-CYCLE:**  
The one area  
fully in your  
control

# A new era of technology emerges: Generative AI

**Generative AI (GenAI)** understands complex language and reasoning, using patterns from vast amounts of data to predict and generate text in a human-readable format.

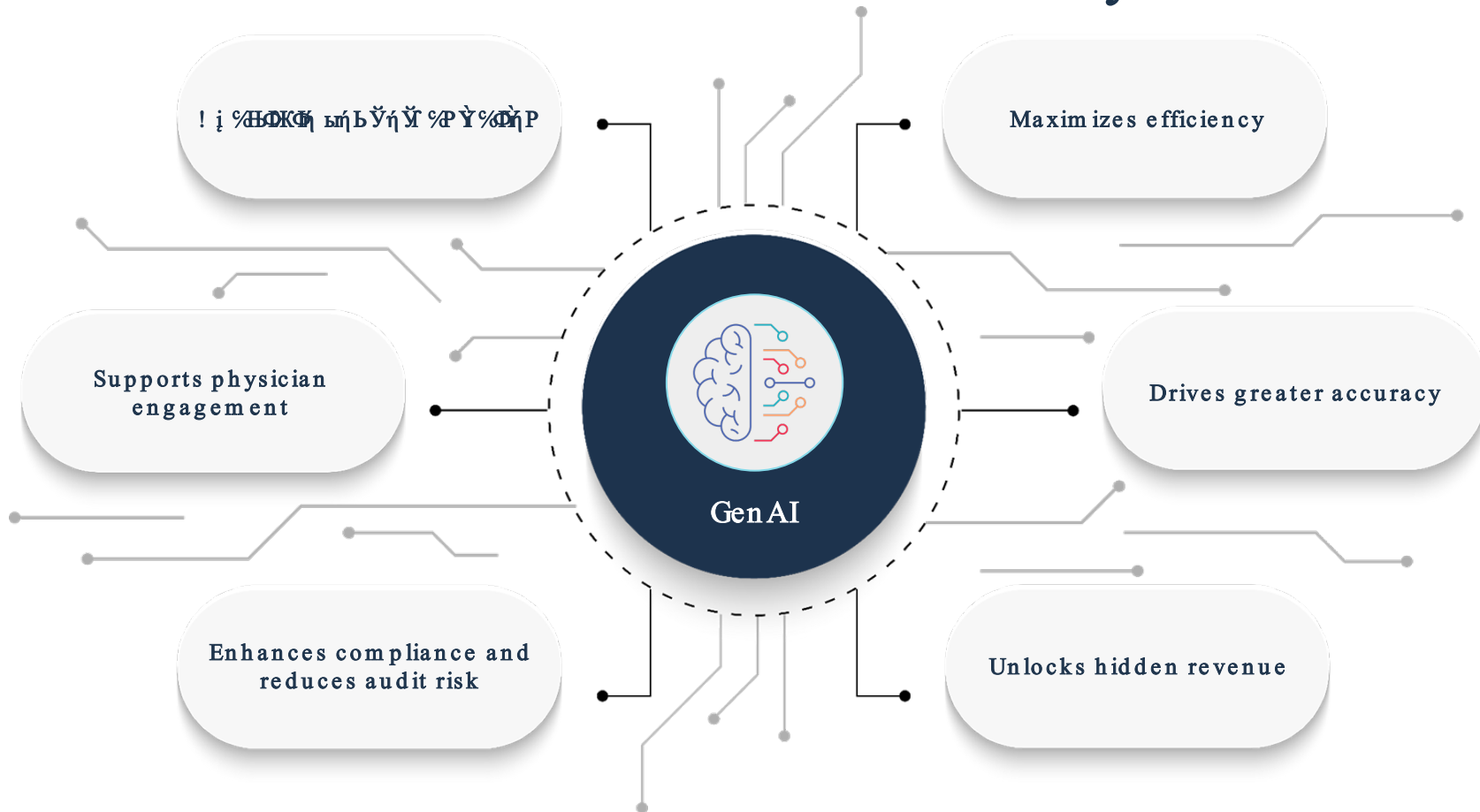


GenAI Unlocks the Clinical Record

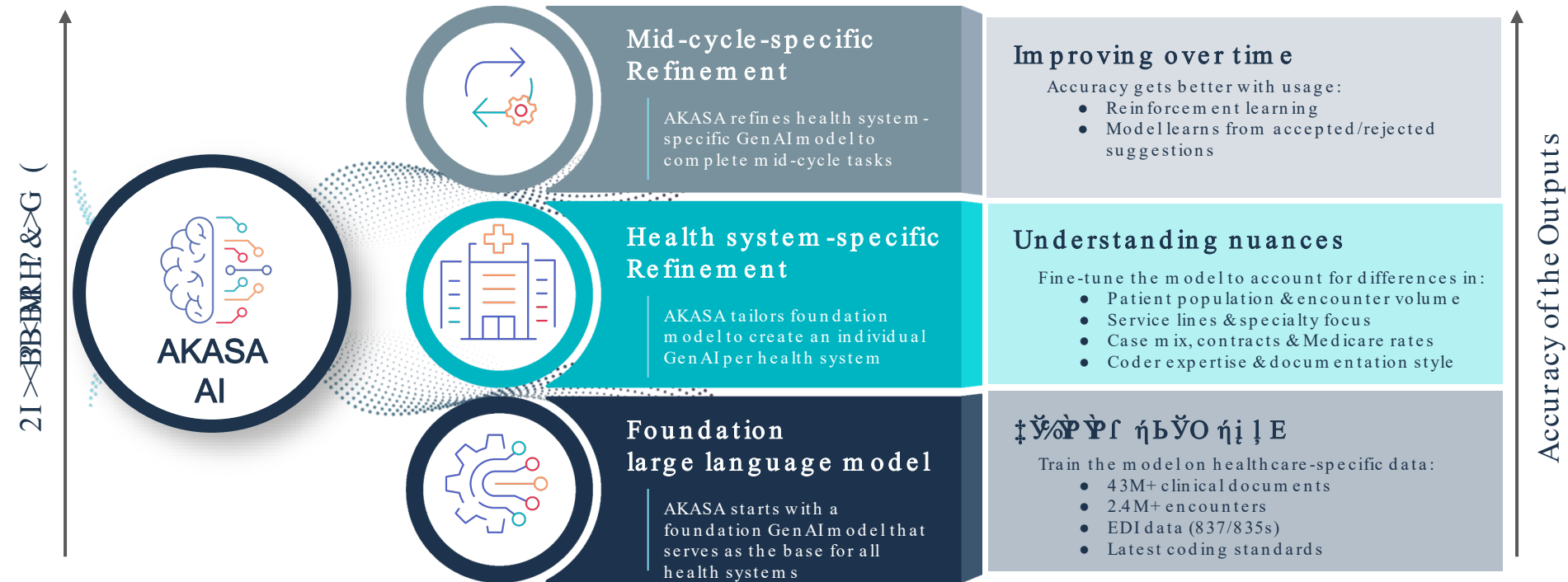
SEPSIS  $\neq$  NOT SEPSIS

The background features a dark blue gradient with abstract, flowing particle trails in light blue and red. A network of white dots connected by thin lines is visible, suggesting a digital or scientific theme.

# What GenAI can do for the mid-cycle



# Tailoring a GenAI model



# Gen AI surfaces top opportunities

Encounter List														
Sort by		Discharge Date		Status		Facility		Service Line		Assignee		Clear		
<input type="checkbox"/>	Priority	Confidence	Encounter ID	MS-DRG	APR-DRG	SOI	ROM	New Indicators	Patient Name	Discharge Date	Coded Date	Assignee	Status	Comments
<input type="checkbox"/>	1	97%	00012354	057 > 056	042	2 > 3	2 > 3	MCC HCC CC	Novinski, Olivia	06/07/2024, 6:55PM EST	06/08/2024, 1:33PM EST	Jana Nitz...	Not Reviewed	
<input type="checkbox"/>	2	95%	00123226	346 > 345	788	2 > 3	1 > 2	CC PSI Exclusion SDOH	Andrew, Gerlach	02/14/2024, 11:12PM CDT	02/14/2024, 11:12PM CDT	Vera Lowe	Not Reviewed	
<input type="checkbox"/>	3	97%	00123494	988 > 987	567 > 566	2 > 3	1 > 2	MCC HCC SDOH	Paulette, Gaylord	02/13/2024, 10:43PM CDT	02/13/2024, 10:43PM CDT	Leland Da...	Not Reviewed	
<input type="checkbox"/>	4	95%	01344785	348 > 345	345	2 > 3	1 > 2	CC HCC	Jason, Kozey	02/13/2024, 8:44PM EST	02/13/2024, 8:44PM EST	Margie Pr...	Processing	
<input type="checkbox"/>	5	94%	02344522	875 > 874	543	3 > 4	2 > 3	SDOH	Stephen, Moen	02/13/2024, 8:44PM EST	02/13/2024, 8:44PM EST	Brandon...	Processing	
<input type="checkbox"/>	6	94%	03445597	873 > 872	878	1 > 2	1 > 2	HCC HAC Exclusion PSI	Dallas, Leffler	02/13/2024, 10:43PM CDT	02/13/2024, 10:43PM CDT	Hilda Mc...	Processing	
<input type="checkbox"/>	7	88%	03556657	342 > 340	662 > 661	2 > 3	1 > 2	MCC HCC SDOH	Santos, Nienow	02/10/2024, 1:43PM EST	02/10/2024, 1:43PM EST	Claudia K...	Processing	
<input type="checkbox"/>	8	82%	03777832	543 > 541	431 > 430	1 > 2	2 > 3	SDOH	Miss Jay, Little	02/10/2024, 1:43PM EST	02/10/2024, 1:43PM EST	Elsie Kozey	Processing	
<input type="checkbox"/>	9	92%	03455576	763 > 762	322 > 321	2 > 3	3 > 4	PSI Exclusion SDOH	Wilbert, Runolfsson	02/10/2024, 10:47PM EST	02/10/2024, 10:47PM EST	Peter Kin...	Processing	

Dashboard of identified opportunities, including comprehensive opportunity review of impacts to DRGs and quality indicators



# Gen AI findings backed by evidence

Patient: Novinski, Olivia (F) MRN 12345 Edit Encounter

ID: 691082828 Facility: Saint Damian Visit: Inpatient Type: Specialty Care Admission: 05/30/2024 Discharge: 06/07/2024 (Home) Assignee: J Jana Nitzsche v

Comments Activity Feedback

Documents: 9

Search and select to view.

Search by keyword

Start date → End date

Show Hidden Documents

Discharge Summary

06/07/24 6:55PM EST

Dr Wesley Haynes, Psy MD

History and Physical (1)

06/06/24 12:45AM EST Harry Koch MD

Hospital Progress Note (5)

06/06/24 10:55AM EST Cory Casper MD

06/04/24 8:02AM EST

Jermaine Volkman MD

06/01/24 1:05PM EST

Earnest Mosciski APRN-NP

06/01/24 11:22AM EST Joan Wisozk MD

Discharge Summary

Last Updated: 06/07/24 6:55PM EST

Signed By: Wesley Haynes MD Author: Wesley Haynes MD

PHYSICIAN HOSPITAL DISCHARGE SUMMARY

Provider: Wesley Haynes, MD  
Patient: Novinski, Olivia  
Patient ID: 6910828  
Sex: Female  
Attachment Control Number: E2597818  
Date of Admission: 05/30/2024  
Date of Discharge: 06/07/2024

HOSPITAL DISCHARGE DX

- A81.01 Variant Creutzfeldt-Jakob disease
- N17.0 Acute kidney failure with tubular necrosis

HISTORY OF PRESENT ILLNESS

A 48-year-old woman, married, a housekeeper, who has suffered from some symptoms including depressed mood, loss of appetite, insomnia, and mutism that started two months ago without any significant stressor. Some medications including fluphenazine decanoate, venlafaxine, sodium valproate, duloxetine, olanzapine and trihexyphenidyl had been prescribed by a neurologist in an outpatient clinic. Gradually, in addition to ataxia, slowness of movements, dysarthria, rigidity, uncontrollable movements of the limbs, and loss of performance occurred to the extent that she was unable to do her own household chores. Sometimes, she stares at a point and screamed horribly. Following the receipt of moderate, symptoms such as rigidity have exacerbated; and due to the decreased levels of consciousness, the patient was referred to the emergency department for further evaluation and treatment.

Codes: 9

New suggestions blue, user selected gold, original selected pink. Use checkbox to include.

All (9) Diagnosis (5) Procedure (4) Restore Codes

Admitting Diagnosis

R413 Other amnesia

ICD-10-CM Codes (Diagnosis) - 5

Code	Description	POA	Indicators	SOI	ROM	Actions
<span style="color:blue;">★</span> A81.01	Variant Creutzfeldt-Jakob disease	Y ▾	HCC	0	0	<input checked="" type="checkbox"/> ⋮
<span style="background-color:gold;">■</span> N17.0	Acute kidney failure with tubular necrosis	Y ▾	MCC HCC	3	3	<span style="background-color:green; color:white;">+</span> <span style="background-color:red; color:white;">-</span> ⋮ ^

MS-DRG Impact SOI ROM

057 > 056 2 > 3 2 > 3

Justification

The patient's medical record indicates a diagnosis of acute kidney failure with tubular necrosis. [More..](#)

Direct Quotes To add a quote, select text on document

Acute kidney failure w/tubular necrosis

Discharge Summary Wesley Haynes, MD, 06/07/24 6:55 PM

acute kidney failure w/tubular necrosis

## GenAI shows its work, with justifications, exact quotes, and direct links to the documentation

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## ICD-10-CM Codes (Diagnosis) - 5

Code	Description	POA	Indicators	SOI	ROM	Actions
★ A81.01	Variant Creutzfeldt-Jakob disease	Y	HCC	0	0	<input checked="" type="checkbox"/>
N17.0	Acute kidney failure with tubular necrosis	Y	MCC HCC	3	3	<input type="checkbox"/> <input type="checkbox"/>

MS-DRG Impact SOI ROM

057 > 056 2 > 3 2 > 3

### Justification

The patient's medical record indicates a diagnosis of acute

**Direct Quotes** To add a quote, select text on document

Acute kidney failure w/tubular necrosis

[Discharge Summary](#) Wesley Haynes, MD, 06/07/24 6:55 P

acute kidney failure w/tubular necrosis

[Discharge Summary](#) Wesley Haynes, MD, 06/07/24 6:55 P

F02.84 Dementia in other diseases

### Discharge Summary

Last Updated: 06/07/24 6:55PM EST

Signed By: Wesley Haynes MD Author: Wesley Haynes MD

### HOSPITAL DISCHARGE PHYSICAL FINDINGS

Physical examination at the time of admission revealed a thin, pleasant female in mild respiratory distress. She had no adenopathy. She had decreased breath sounds three fourths of the way up on the right side. The left lung was mostly clear although there were a few scattered rales. Cardiac examination revealed a regular rate and rhythm without murmurs. She had acute kidney failure w/tubular necrosis

### HOSPITAL DISCHARGE STUDIES SUMMARY

A chest x-ray showed a large pleural effusion on the right.

### HOSPITAL COURSE

The patient was admitted. A CT scan was performed which showed a possibility that the lung was trapped by

GenAI empowers coding staff to quickly review findings and validate additional opportunity capture

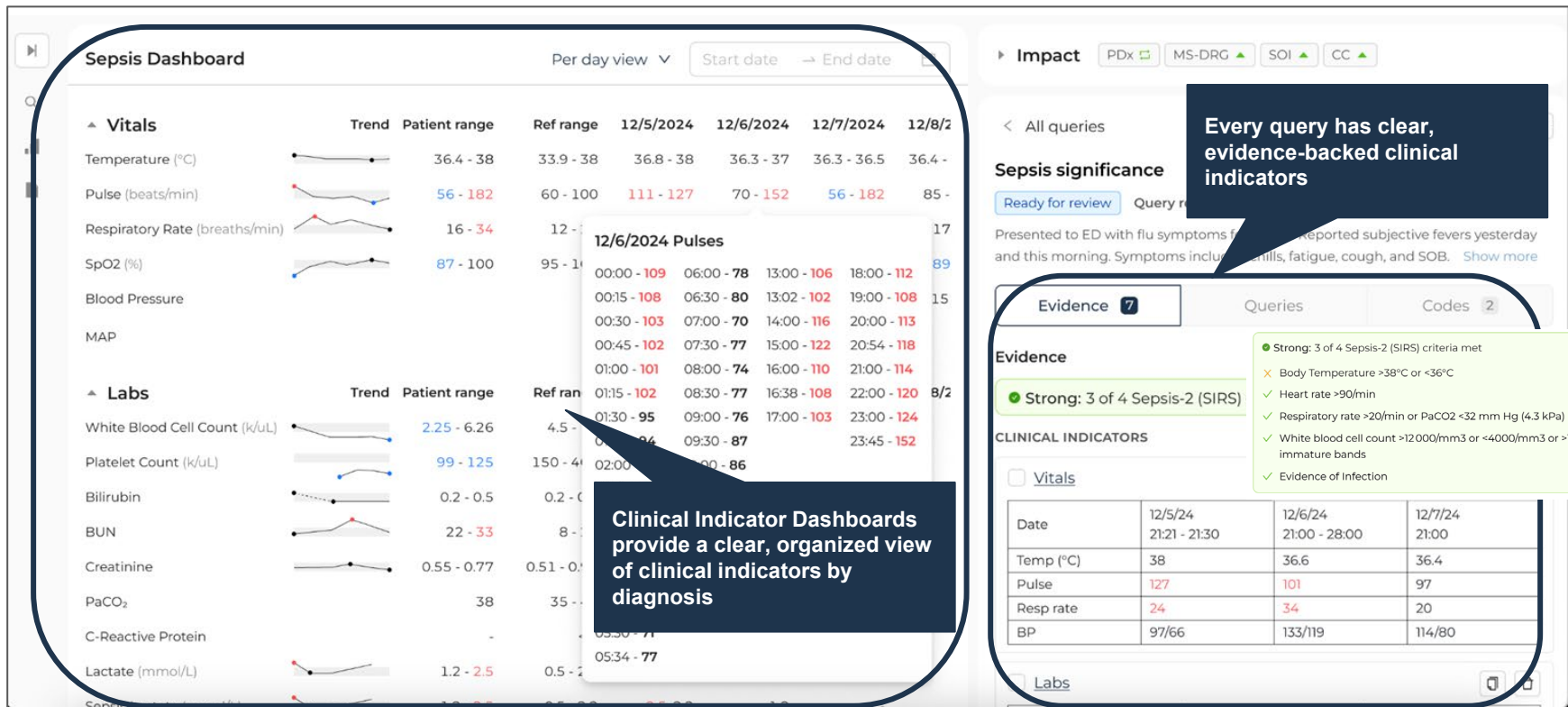


# Boost CDI efficiency with effective prioritization and real-time collaboration



The screenshot displays the AKASA Encounters interface. At the top, there are filters for 'Encounter ID', 'Potential impact' (All, To code, To query, Completed), 'Received date' (Start date, End date), 'Status' (All), and a search bar for 'Search by Encounter ID'. Below the filters is a table of encounters. The table has columns for Encounter ID, Potential impact, POS/GMLOS, Discharge date, Coded date, Reviewer, Status, and Actions. The first encounter (3456789) is highlighted with a blue box around its 'Potential impact' column, which shows a 'High' impact and various DRG codes (MS-DRG, APR-DRG, HCC, MCC, CC, SOI, ROM, EC). A callout box points to this area, stating: 'Integrated workflow enables real-time CDI-coding collaboration with a unified workflow'. Below the table, there is a detailed view of the first encounter, showing 'Original' and 'Potential' diagnoses, weights, and indicators. A callout box points to this detailed view, stating: 'GenAI surfaces high-impact, high-confidence revenue and quality opportunities'. The interface also shows a list of other encounters with their respective impact levels, DRG codes, and status (Updated, In progress, Pending).

Encounter ID	Potential impact	POS/GMLOS	Discharge date	Coded date	Reviewer	Status	Actions
3456789	High MS-DRG: 193, APR-DRG: 138, HCC: 7, MCC: 1, CC: 1, SOI: 1, ROM: 1, EC: 1	7 / 3.6	12/10/2024	12/11/2024	Jana Nitzsche	Ready for review	View, Chat
0012354	High MS-DRG: 193, APR-DRG: 138, HCC: 7, MCC: 1, CC: 1, SOI: 1, ROM: 1, EC: 1	5 / 2.5	12/12/2024	12/12/2024	Dave Kling	Updated 2	View, Chat
6515826	High MS-DRG: 193, APR-DRG: 138, HCC: 7, MCC: 1, CC: 1, SOI: 1, ROM: 1, EC: 1	4 / 2.5	12/12/2024	12/13/2024	Dave Kling	Updated 1	View, Chat
5412554	High MS-DRG: 193, APR-DRG: 138, HCC: 7, MCC: 1, CC: 1, SOI: 1, ROM: 1, EC: 1	4 / 2.5	12/12/2024	12/13/2024	Tami McCullough	Updated 3	View, Chat
6257921	Med MS-DRG: 193, APR-DRG: 138, HCC: 7, MCC: 1, CC: 1, SOI: 1, ROM: 1, EC: 1	3 / 2.5	12/12/2024	12/13/2024	Tami McCullough	In progress	View, Chat
1269465	Med MS-DRG: 193, APR-DRG: 138, HCC: 7, MCC: 1, CC: 1, SOI: 1, ROM: 1, EC: 1	3 / 2.5	12/12/2024	12/13/2024	Jana Nitzsche	Pending	View, Chat
3265485	Med MS-DRG: 193, APR-DRG: 138, HCC: 7, MCC: 1, CC: 1, SOI: 1, ROM: 1, EC: 1	2 / 2.5	12/12/2024	12/12/2024	Dave Kling	Pending	View, Chat

# Gain clarity with a full clinical picture



# Stream line query generation and new code addition

**Query for Sepsis significance**  

To: Steve Flint, MD


Query template

Significance ▾








Query subject

Sepsis ▾

Date sent

12/11/24 

Tr ▾



 | **B** *I* U A ▾ |    |    Copy  Paste

**Documentation Query**

Please clarify after study the conflicting documentation related to “met sepsis criteria” in the ED and DCS:

- Severe sepsis secondary to RSV PNA with acute on chronic respiratory failure POA Y.
- Severe sepsis secondary to RSV PNA with acute on chronic respiratory failure POA N.
- Severe sepsis ruled out; patient with RSV PNA.
- Other

→Auto-generated queries extract patient chart data and draft concise, evidence-backed queries for CDS review

< All queries  Compose query 

**Sepsis significance**

Provider Agreed



**Query reason:** Change in final DRG ▾



Presented to ED with flu symptoms for 5 days. Reported subjective fevers yesterday and this morning. Symptoms included chills, fatigue, cough, and SOB. [Show more](#)


Evidence 7


Queries 2


**Codes 2**



 Code successfully added to this encounter's code list 

A41.89 Other Specified Sepsis **Added**  

PDx 

MS-DRG 


MCC 

R65.20 Severe sepsis without septic shock  

**+ Add anticipated code**

→Track provider responses, manage new code addition, and view a complete encounter code list in one place

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 AKASA

# Real talk at the tables

1

What tools and technology are you using in the mid-cycle right now?

2

What are the top 3 challenges your team is facing in the mid-cycle?

3

When considering new solutions or vendors, what matters most to your team — speed of implementation, measurable ROI, or something else?

# Readouts

## Take aways

С g l P! u YK/EY %d Ы I W/Pf Yf OM O Y . I Ы E • i ηP YX %YOF l Ъ Hη Y  
YOKH Φ P PE

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# Thank You

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