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ARTIFICIAL INTELLIGENCE (AI) AT UK HEALTHCARE

OpenEvidence – AI Platform to Augment Clinical Decision Making

- OpenEvidence – An AI tool that draws from trusted sources to generate evidence-based medicine recommendations to clinical questions.
 - New England Journal of Medicine
 - Journals of the American Medical Association (AMA)
 - Mayo Clinic Platform



OpenEvidence – Findings

- AI platforms can potentially enhance clinical decision-making (CDM) in primary care settings, but real-world primary care cases remain unknown.
- **Objective:** Study evaluated recommendations for five common chronic conditions in primary care: hypertension, hyperlipidemia, diabetes mellitus type 2, depression, and obesity.
- **Results:** OpenEvidence provided accurate, evidence-based recommendations in all cases, aligning with physicians' plans.

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Christopher P. DeSimone, Executive Chief Medical Officer

Gwen Moreland, Chief Nursing Executive



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AMBIENT LISTENING MICROSOFT-NUANCE DAX COPILOT

The Challenge for Physicians and Advanced Practice Providers:

Data indicates that many providers must use personal time for documentation.

2024 AMA Survey Results

Question	Response
The electronic health record (EHR) adds frustration to my day.	41% Agree/Strongly Agree
The amount of time I spend on documentation is?	34% Marginal/Poor
The amount of time I spend on the electronic health record outside of normal work hours is?	34% Moderate/Excessive
How much time in a week do you spend on the EHR outside of your normal work time?	23% more than 6 hours

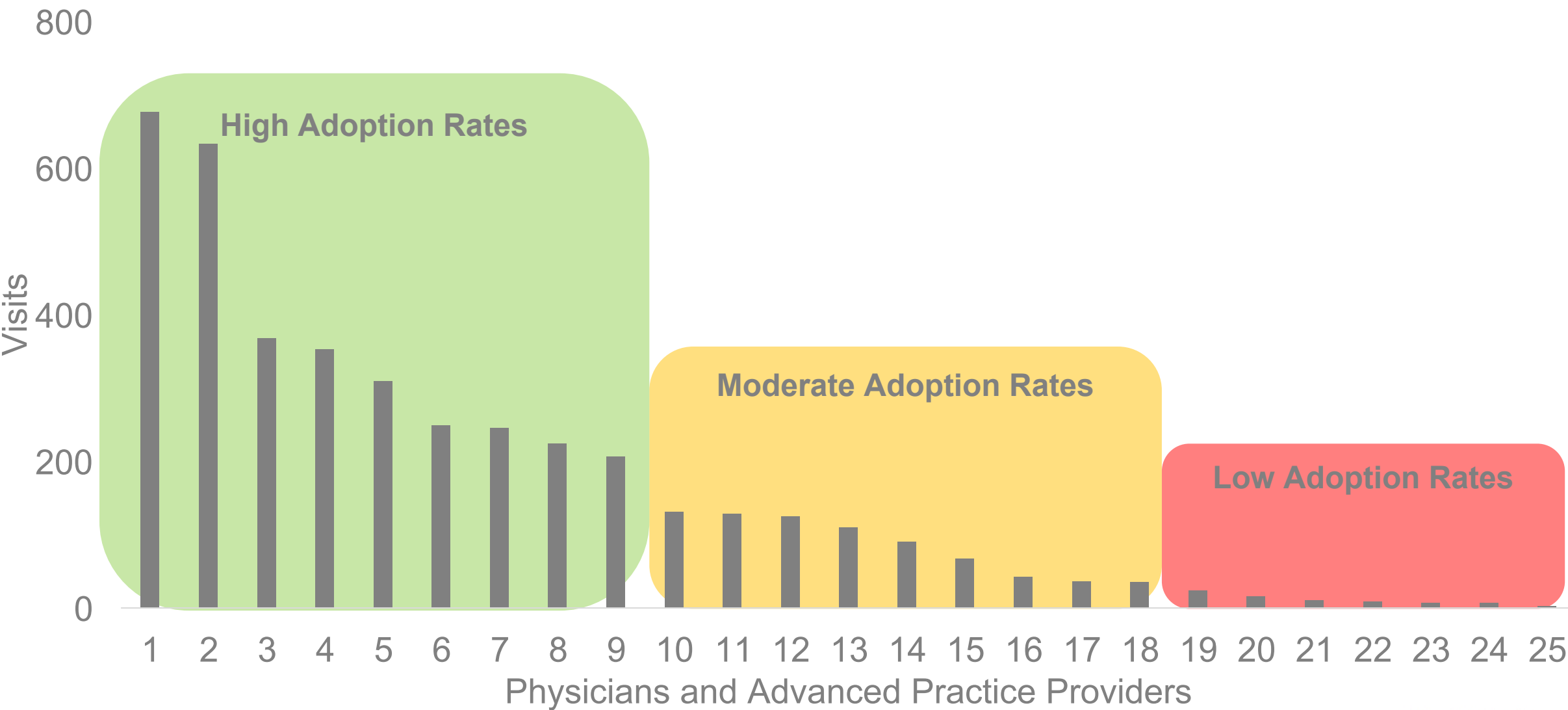
Epic Signal Data — Pilot Group

Metric	Pilot Group
Time Spent Outside of Work Hours per Scheduled Day	26 min
Time on Unscheduled Days per Unscheduled Day	45 min
Time outside of Scheduled Hours per Scheduled Day	31 min
Total Time Using Epic Outside of Scheduled Time in Clinic	102 min

90-Day Implementation Summary

- Launched: February 10, 2025
- Physician Champion: Bryan Rone, MD, Assistant Chief Medical Information Officer-Ambulatory
- 26 Physicians and Advanced Practice Providers
- 13 Specialties:
 - Cardiology
 - Otolaryngology
 - Family Medicine
 - General Internal Medicine
 - General Pediatrics
 - Obstetrics and Gynecology
 - Orthopaedics
 - Pediatrics
 - Nephrology
 - Pediatric Surgery
 - Surgical-Oncology
 - Urology
 - Vascular Surgery

Ambient Listening



Operational Efficiencies

- 8% reduction in mean provider charting time ($p=0.03$)
- 8% increase in appointments per day ($p=0.01$)
- If 30% of providers become high adopters, it is estimated that UK HealthCare can regain 40 hours of daily Physician/Advanced Practice Provider time and increase annual patient volume by **57,879**.

Qualitative Pilot Feedback

“This is the **most significant technological advancement in medicine in the last 30 years of my clinical career.**”

“I loved it! **Crazy how AI can get the info into the right spot** – HPI vs A&P, etc. And it truly leaves out the extraneous chit-chat stuff, so I am just going about my normal visit!”

“I used it yesterday for all of my encounters and it is awesome! I was able to close all but one of my visits in real time. **I am also impressed by the quality** and the info pertinence of HPI and A&P parts that AI does. I am so glad I stayed!”

“...I will make food for you for the entire year if you let me keep DAX. Imagine if you ran to work every day, and one day someone gave you a car. Then they don't tell you they're taking it back. **I don't want to go back!**”

“I used it on Friday – **For the first time ever, I completed all encounters/notes by the end of clinic.**”

Next Steps Across UK HealthCare

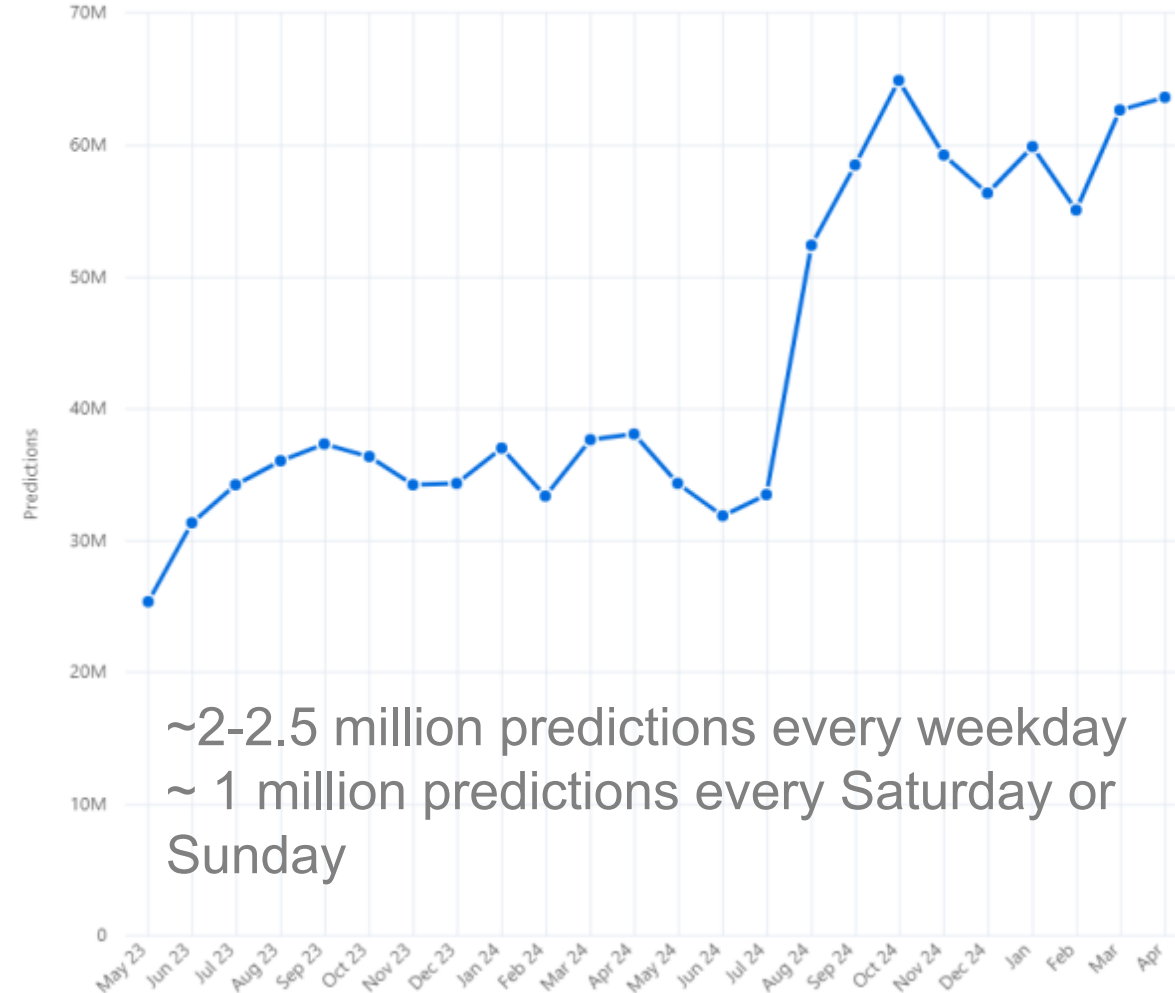
- Based on the positive feedback, UK HealthCare will adopt Ambient Listening in fiscal year 2026.
- Ambient Listening will be available to each physician, advanced practice provider, fellow and resident.
- The program will be utilized in the ambulatory settings and the emergency department.
- Inpatient nursing will participate in a trial in fiscal year 2026.

PREDICTIVE MODELING

Predictive Models for Quality and Safety

Epic

- Risk of Opioid Use Disorder or Overdose
- Risk of Hospital Admission or Emergency Department Visit
- Deterioration Index
- Early Detection of Sepsis
- No Show
- Risk of Unplanned Readmission
- Upcoming
 - HP/PB Likelihood of Payment models
 - The Likelihood of Discharge by End of Day

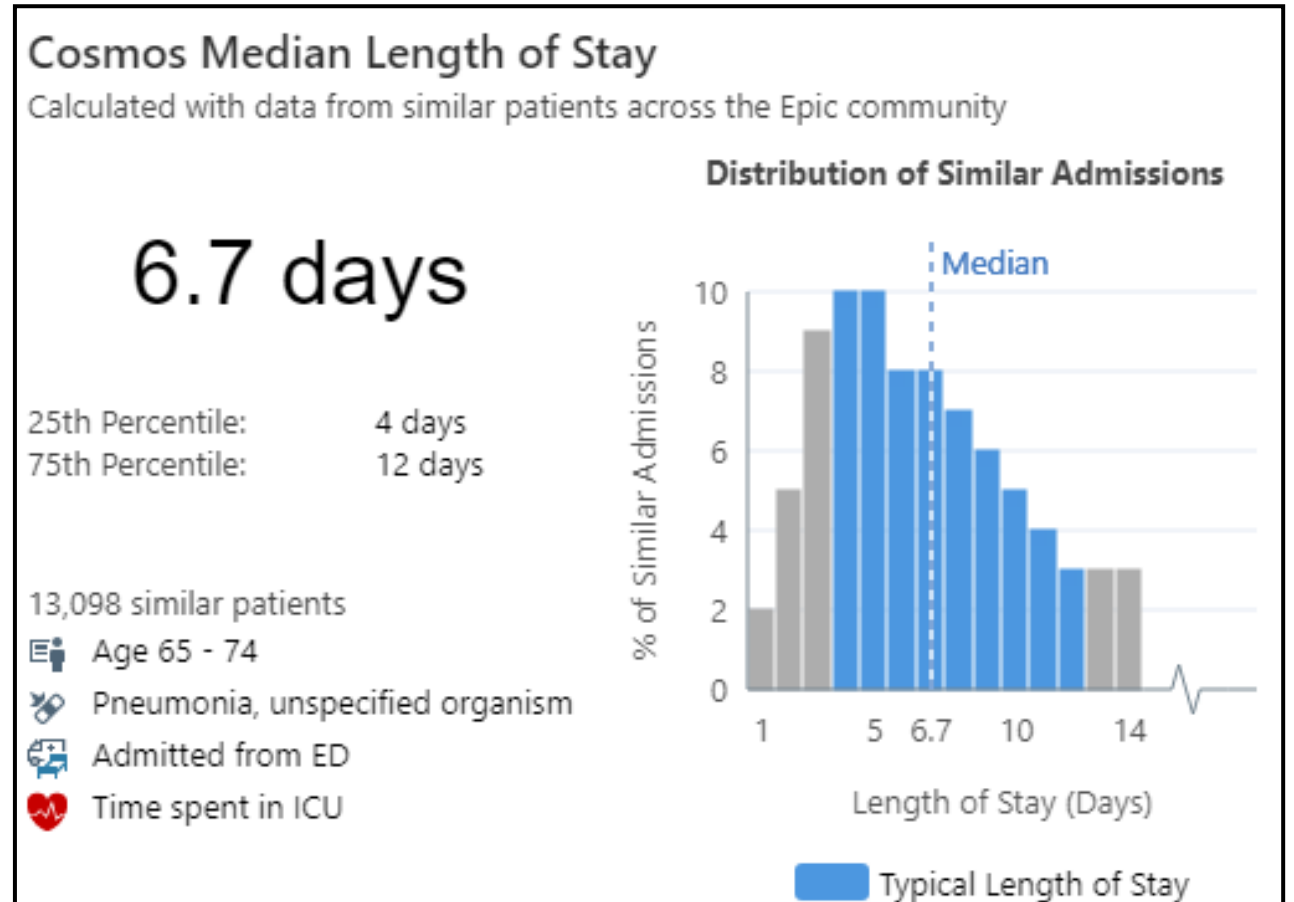


EPIC COSMOS

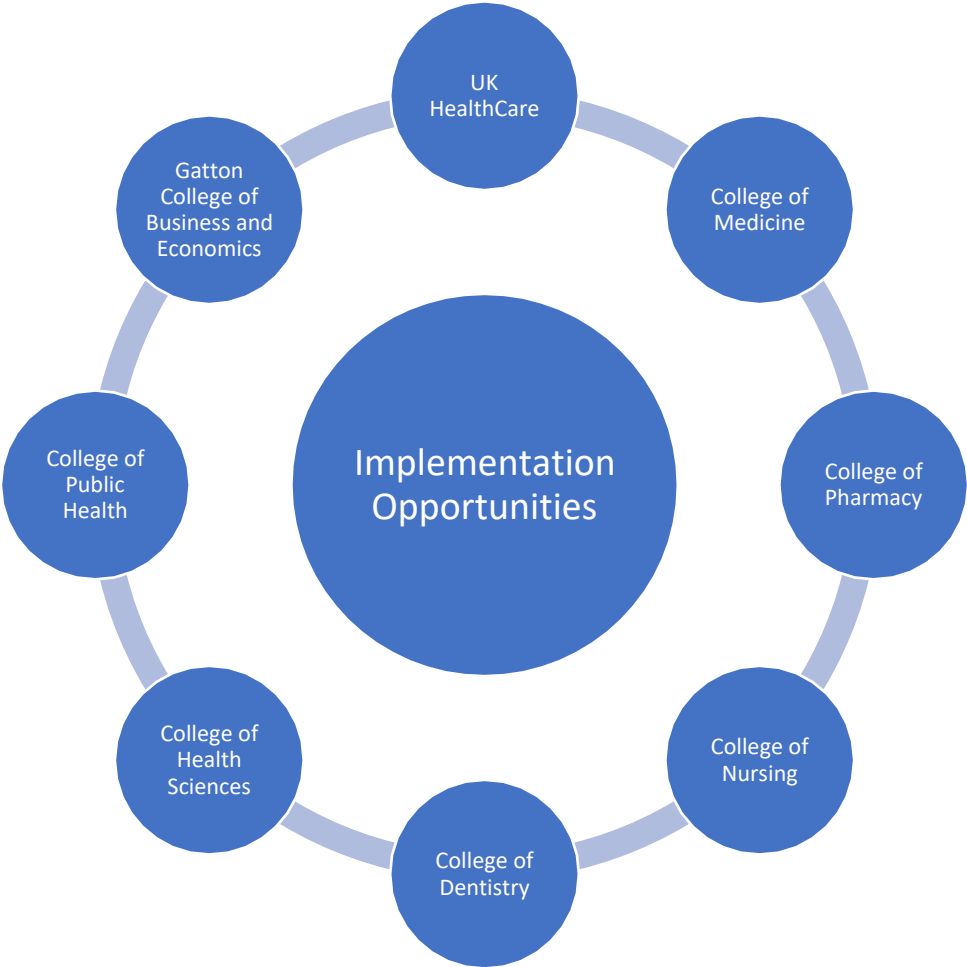
Epic Cosmos across the Health Care System

- Longitudinal, deidentified, representative

- 300 million patients
- 15.7 billion encounters
- 7.6 billion face-to-face visits
- 40.1K clinics
- 1,715 hospitals
- 333K beds
- 427K physicians



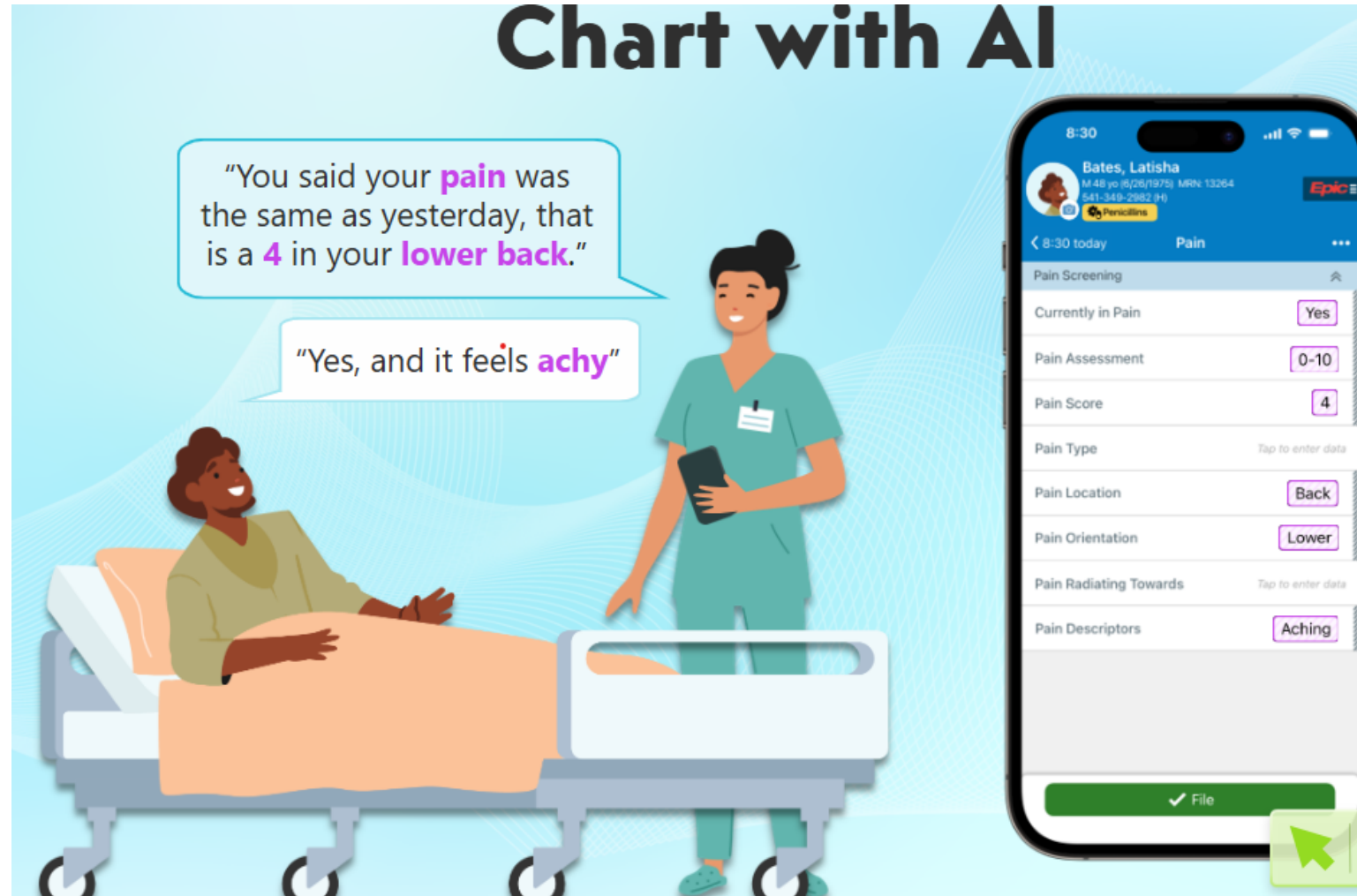
UK HEALTHCARE AI — EPIC COSMOS



AMBIENT LISTENING FOR INPATIENT NURSING

Ambient Listening for Inpatient Nursing

Hands-Free Nursing Assessments allow nurses to focus on patients when documenting flowsheets by starting a recording on their phone and letting ambient listening take over.



Ambient Listening for Inpatient Nursing

Early adopters include Stanford,
Mercy and Tampa General



“ [Ambient has] **improved my patient assessments,** and it **increased my confidence in the care I provide.** It truly is a game changer for me.

- Bedside nurse ”

Mercy didn't just invest in a tool we removed a barrier, and in doing so, **we strengthened her ability to be the best version of herself.**

-Mercy Nursing Executive Director

AUGMENTED RESPONSE TECHNOLOGY

Generative AI at Epic — Expectations

PROMPT ENGINEERING

Light prompt engineering is key to improving the feature. Trends in user feedback should drive prompt changes on an ongoing basis.


DRAFT PURPOSE

Many drafts will need edits. They are intended to be strong starting points for humans to review and adjust as needed.

PROJECT GOAL

The goal of Art is to improve response quality and reduce cognitive burden.


Generative AI at Epic — Example in Practice


 **Rash**

Received: Today

Wisam, Hallie → Raleigh, Sally, MD


Hey, I have a rash that has been spreading on my arm for the past week. It's itchy and I am getting concerned that it's not going away. What should I do?


 **Generated Draft Reply**


 AI Pioneering

Dear Hallie,


I'm sorry to hear about your rash. As it's been persisting for a week, it would be best to have it examined. Please schedule an appointment at your earliest convenience so we can take a closer look and discuss your symptoms in more detail.


 [Learn More](#)

 Start with Draft

 Start Blank Reply

Did you find the draft reply helpful?

 This was helpful

 This was not helpful

UK HEALTHCARE AI — AUGMENTED RESPONSE TECHNOLOGY

The ‘astounding’ results of AI at Texas Children’s

Source: Becker’s

<https://www.beckershospitalreview.com/healthcare-information-technology/innovation/the-astounding-results-of-ai-at-texas-childrens/>

- 30 providers saw 50% decrease in the average message review time and a 46% decrease in drafting time.

Artificial Intelligence–Generated Draft Replies to Patient Inbox Messages

Source: Journal of the American Medical Association

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2816494>

- Feelings of how difficult messaging work is decreased by ~23% and feelings of how exhausting messaging work is decreased by ~17% when starting with drafts.

Gen AI Saves Nurses Time by Drafting Responses to Patient Messages

Source: EpicShare

<https://www.epicshare.org/share-and-learn/mayo-ai-message-responses>

- Initial pilots showed that it saves nurses around 30 seconds per message and drafts more empathetic responses.

Prompt engineering on leveraging large language models in generating response to InBasket messages

Source: JAMIA

<https://academic.oup.com/jamia/article/31/10/2263/7717344>

- 71% of clinicians perceived it to reduce their cognitive load.
- Clinicians also reported 5-60 minutes reduction of In Basket time.

QUESTIONS

