MEDITECH

eBOOK

Solving Real-World Challenges using MEDITECH AI

INTRODUCTION

At MEDITECH, we don't see artificial intelligence as just a buzzword – we see it as a powerful tool to solve the real problems faced by healthcare providers every day. We're focused on building AI solutions that not only drive innovation but also earn **trust through transparency and real-world impact.**

By collaborating closely with clinicians throughout the development process and continuously refining our approach, we ensure our AI features are **a natural extension of our intelligent EHR.** Our goal is clear: address the most urgent issues in healthcare with solutions that are both practical *and* transformative.

Here is how we do it:

Meaningful Partnerships
We work side-by-side with customers to craft AI strategies that meet their specific needs and challenges.

Active Listening
We incorporate direct end-user feedback to build AI tools that are both effective and easy to use.

Change Management Support
We make adoption easier by providing practical, straightforward educational resources.

Transparency
We offer intuitive visual dashboards that turn complex data into understandable insights about a model's performance.

In this eBook, we'll dive into the unique challenges healthcare faces today, share how MEDITECH is tackling them with purpose, and explore how you can implement these innovative solutions in your own organization.

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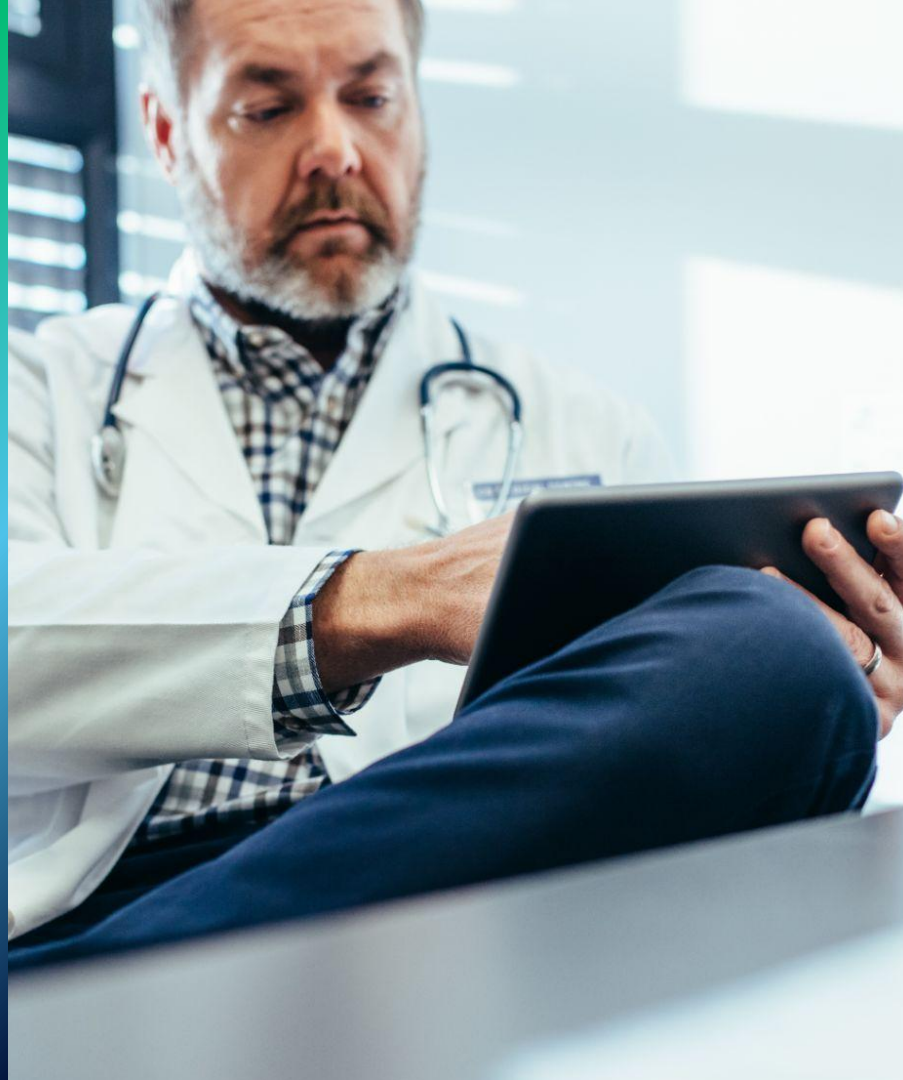


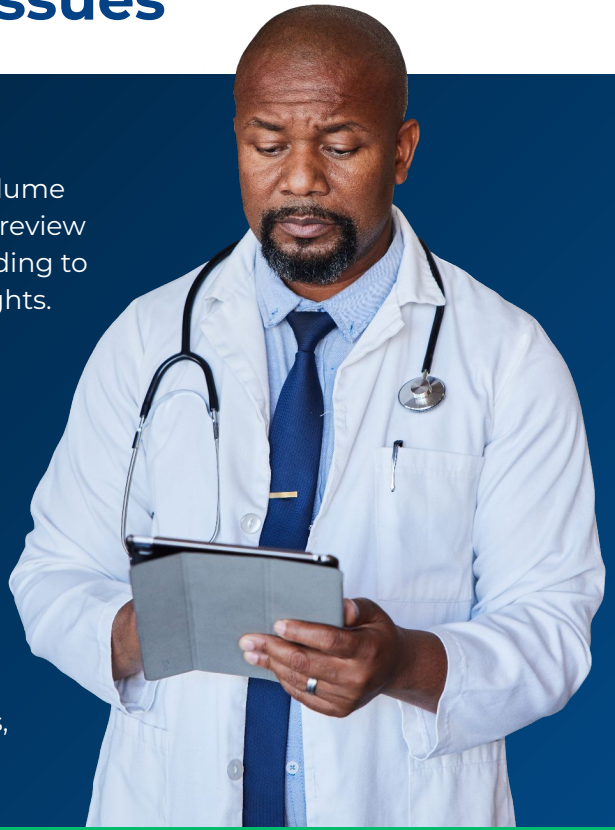
Today’s Pressing Issues

Data Overload
Clinicians are overwhelmed by the volume and variety of patient data they must review before making medical decisions, leading to time constraints and potential oversights.

Communication Breakdowns
Transitions of care are vulnerable points in a patient's care process.

Distractions from Care
Documenting clinical encounters can be burdensome and take the focus off the patient.

Missed Appointments
Patient no-shows create inefficiencies, delayed care, and impact cost.



“Two-thirds of providers and 89% of payors express significant concern about **human error in administrative tasks,** with 22% and 49%, respectively, being ‘extremely’ concerned.”

2024 Report: Measuring the Administrative Burdens on U.S. Healthcare Workers—and How Generative AI Can Help

“**69%** of clinicians agreed that the volume of patient data is already **overwhelming**.”

Elsevier 2023 Clinician of the Future

MEDITECH is actively driving a transformative experience for providers and patients to alleviate these burdens...

READ ON to learn how you can overcome these challenges.

1 Expanse Navigator, Built on Google Cloud
Rapid search and data curation across platforms

Expanse Navigator features dynamic data search and summarization capabilities for clinicians. Embedded directly within the provider's workflow, Expanse Navigator is built on Google Cloud using finely-tuned search capabilities, natural language processing, and a large language model.

Instead of relying on specific word matches, clinicians can use terminology, abbreviations, and medical language that makes sense to them to pull information from unstructured data, such as scanned and handwritten documents, and across legacy platforms.

Beyond information synthesis, Expanse Navigator intelligently organizes and presents a longitudinal view of patient records, highlighting the most important conditions and related health data – like labs, vital signs, medications, and notes – for immediate review and comparison.

Through our collaborative work with Mile Bluff Medical Center, we've delivered an innovative and practical tool to the industry with wide-reaching impact.

Mile Bluff Medical Center clinicians save 7.5 minutes in prep per patient

Benefits:

- Informed decision-making
- Optimal insights from patient's data
- Time-savings
- Reduced cognitive burden
- Forward momentum in care planning

“Our providers saw an **immediate impact** upon going live with the **Expanse Navigator**’s search and summarization functionality. They appreciated how they can launch the functionality directly from their **Expanse Chart Viewer** to get a complete longitudinal view of their patients. Providers were intuitively using the section breakdown within hours of going live to review their provider notes. The solution is already helping to **improve their workflow and efficiency.**”

Randy Brandt, PA-C

Primary Care Physician Assistant

Mile Bluff Medical Center

IMPACT

Expanse Navigator at Mile Bluff

Rapid Adoption Across 23 Departments

CLINICIANS

Saving ~7.5 minutes per patient

Pre-visit prep for primary care, sleep medicine; clinic pre-op.

INFECTION CONTROL

Saving ~40 hours a month

~5 SSI reviews/month. Reviews previously took hours or days, now done in 15 minutes.

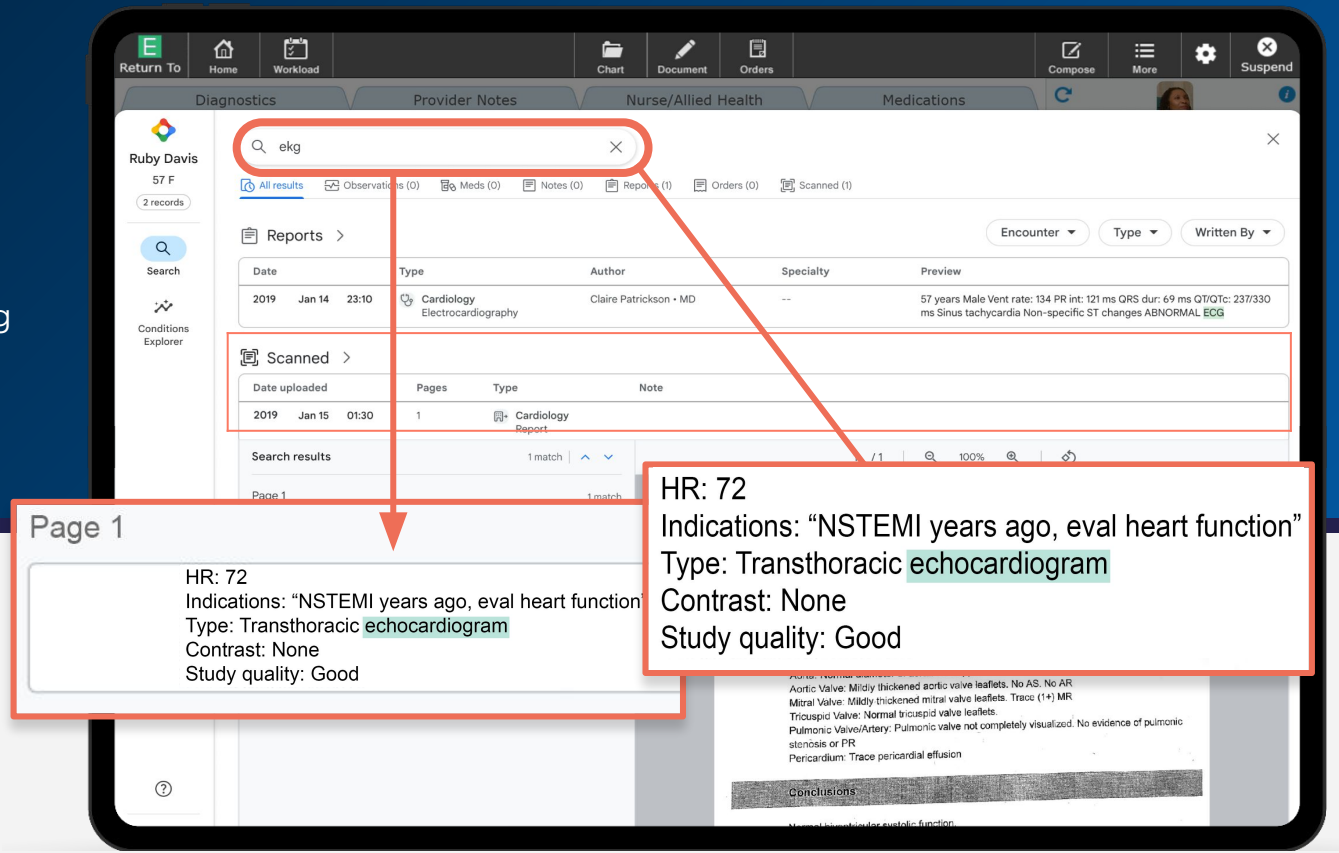
HEALTH INFORMATION MANAGEMENT

Saving ~16.7 hours a week

Used on 50 patients/week; saves 10-30 minutes per patient, which is a 25-40% reduction of time.

MEDITECH and the Power of Google Search

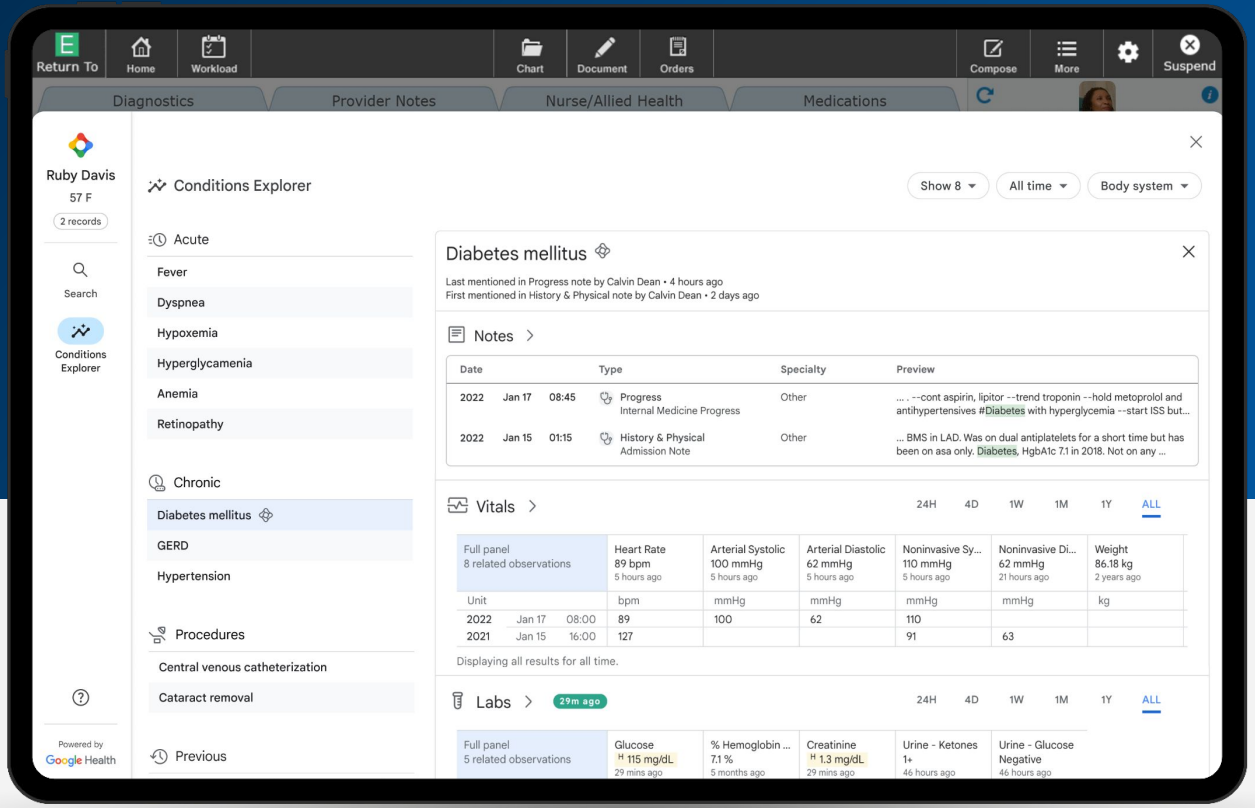
The most **relevant information** is **identified, intelligently organized, and presented**, all within an easy-to-view format **directly within Expanse,** highlighting meaningful data for immediate review.



Incorporates **Google's intelligent search capabilities** and **NLP** allowing users to search patient data directly from within MEDITECH Expanse.

The Conditions Feature

An intelligent summary with clinical context designed to **save time** and **increase confidence.** Make **informed decisions** to ensure **positive patient outcomes**.



Machine learning evaluates a patient's clinical notes and summarizes the medical history to organize a list of active and historical conditions and relevant procedures, signs, and symptoms.

MEDITECH EXPANSE Navigator

Physician Feedback at Mile Bluff

> We do a lot of patient education. So the ability to visualize data in ways that patients can understand [graphs] is amazing.

Dr. Timothy Bjelland
Family Medicine

> I spend anywhere between 20-30 mins per patient cleaning up problem lists. This [Conditions] will really help cut down on all that time. Can't wait!

Dr. Angela Gatske-Plamann
Family Medicine

2 Generative AI for Clinical Documentation
Hospital course narrative and nurse handoff

MEDITECH's current generative AI efforts focus on auto-generating drafts of clinical documentation within the hospital discharge and nurse handoff workflows. These transitions in care require comprehensive and concise communication of pertinent information necessary to maintain a high quality of care and safety.

In the discharge workflow, providers can use generative AI to create a summary of a patient's hospital course, while nurses can generate a summary of key patient details during transitions of care to ensure continuity.

In both scenarios, the clinician serves as the human in-the-loop, ensuring the accuracy of the summary content through final review and editing.

Free text fields within a workflow are time-consuming to complete and introduce issues relating to a lack of standardization. Summarizing information in the patient's record reduces the cognitive load of gathering initial details and provides clinicians a starting point for communication.

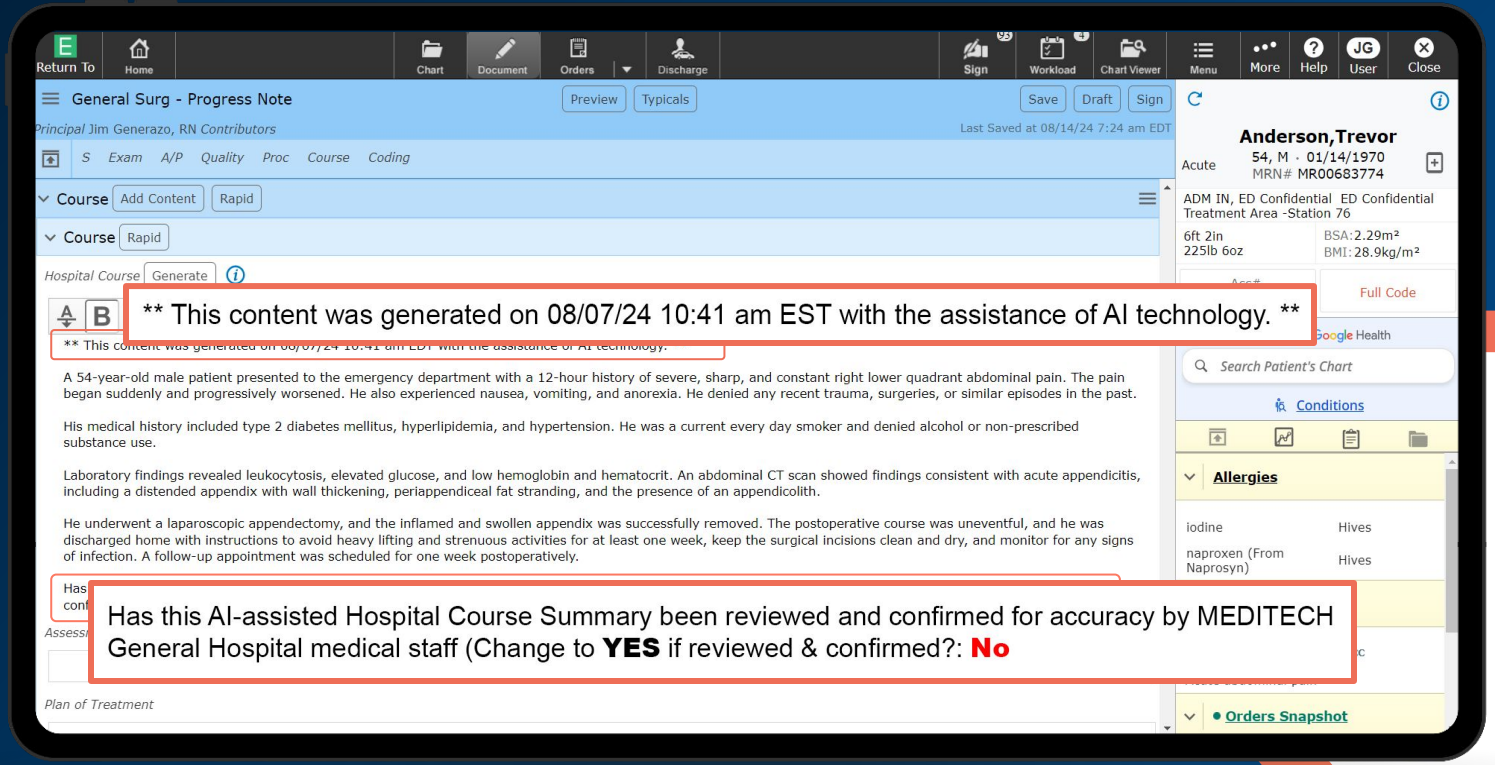
MEDITECH maintains close communication with pilot sites, ensuring clinician input directly influences both the content and format of the summary.

Benefits:

- Time-savings
- Reduced cognitive load
- Standardized note format
- Timely sharing of discharge/transfer documentation

Generative AI for Clinical Documentation

Hospital Course Narrative



Transparent language and timestamp indicate AI assistance. Footer annotation prompts clinician review to **enhance accountability**.

Please note: Disclaimer language is site-specific and can be tailored to organizational needs.

3 Ambient Listening for Clinical Encounters
Clinical and administrative notes generation

Ambient note generation, dictation, and commands enhance clinical workflows by streamlining clinical documentation and administrative tasks. By listening to physician-patient conversations, generative AI suggests notes that summarize the patient encounter.

After the ambient listening solution records the conversation and automatically generates the appropriate clinical visit notes, the provider can review, edit, and approve the note within that same solution.
This is accomplished using voice, typing, or macros, and incorporates this data within the appropriate documentation fields in the Expanse EHR.

Providers can seamlessly go from navigating and reviewing the record to conducting and documenting a visit – all while keeping their primary focus on the patient.

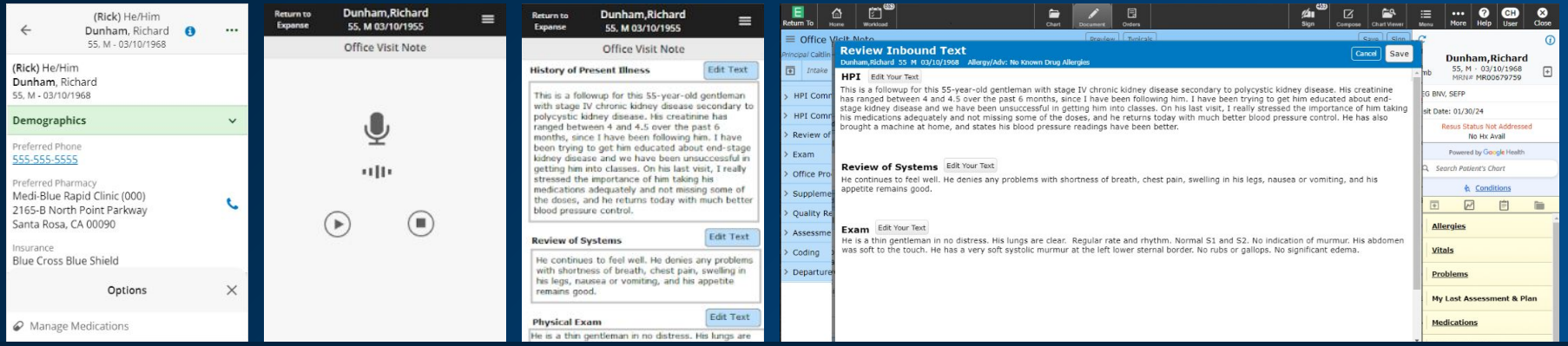
MEDITECH worked closely with early adopters, St. Mary's Healthcare and Decatur County Memorial Hospital, to leverage the ability of this technology to transform both the patient and provider experience.

One year in:
How Suki and MEDITECH are transforming clinician workflows with voice AI capabilities

Benefits:

- Better focus on patient
- Decreased documentation burden
- Time-savings
- Timely sharing of encounter notes

Ambient Listening Experience



Access 3rd party ambient solution via mobile or desktop application

Record the conversation between the patient and provider

View AI generated provider note in the app

Edit the note in the app using dictation, typing, or macros

Send the note back into MEDITECH

“Implementing ambient listening frees providers to **focus on their patients** while AI technology securely documents the encounter. Time previously devoted to writing notes can be used to follow up with patients, while also fulfilling the equally important goal of enhancing our providers’ **work-life balance.**”

Julie Demaree

Executive Director of Clinical Innovation and Transformation

St. Mary’s Healthcare

4 No-Show Appointment Prediction

Pattern analysis and advanced risk predictions

We are leveraging machine learning to allow healthcare organizations to better account for and proactively respond to the needs of patients. The No-Show Appointment Prediction feature will offer schedulers and end-users a prediction of the patient's likelihood of not attending a scheduled appointment.

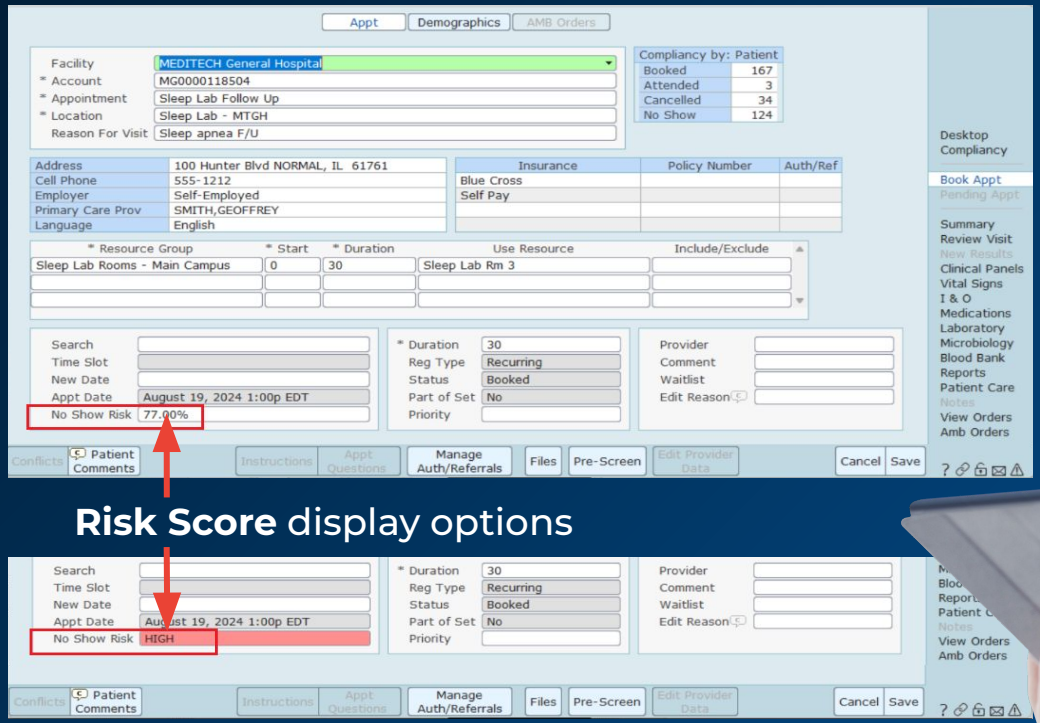
The machine learning model derives the prediction value based on past appointment information. Healthcare organizations will have access to a dashboard of model attributes and their weights (the features impacting the predictive score and degree of influence), and the ability to monitor model performance over time.

Seeing the likelihood of a no-show will allow healthcare organizations to make more informed decisions when booking appointments, and it will provide valuable insights about patients who may benefit from additional outreach to support their attendance at upcoming appointments. Furthermore, end users can use analytics capabilities to uncover patterns for informing workflow changes.

Benefits:

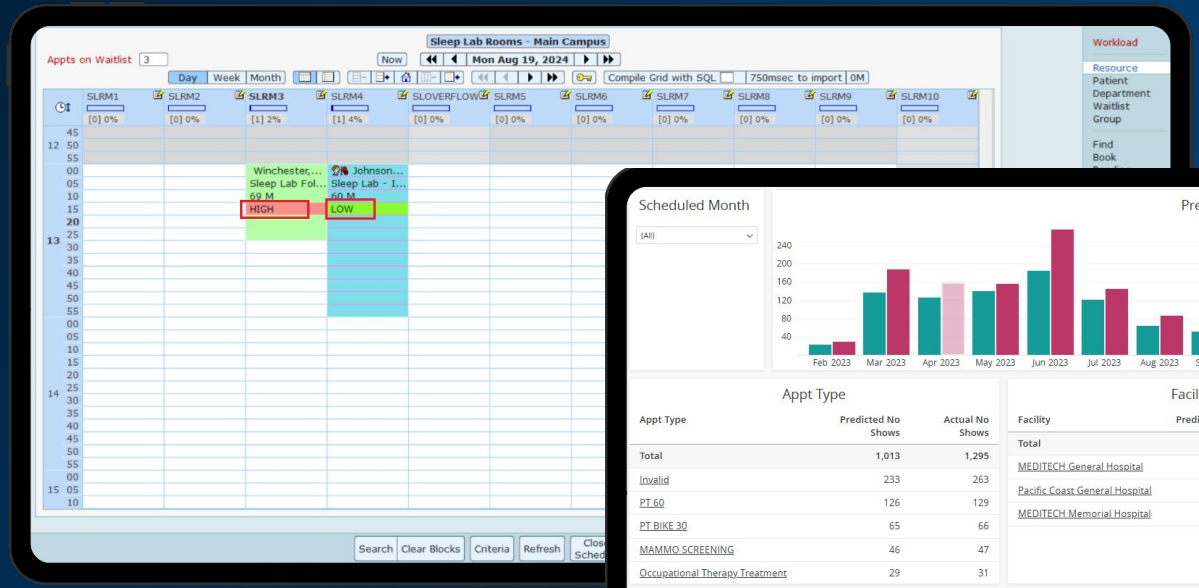
- Better meet patient needs
- Proactively optimize resources
- Support care continuity
- Analysis of patterns

Machine Learning
For Predicting Missed Appointments



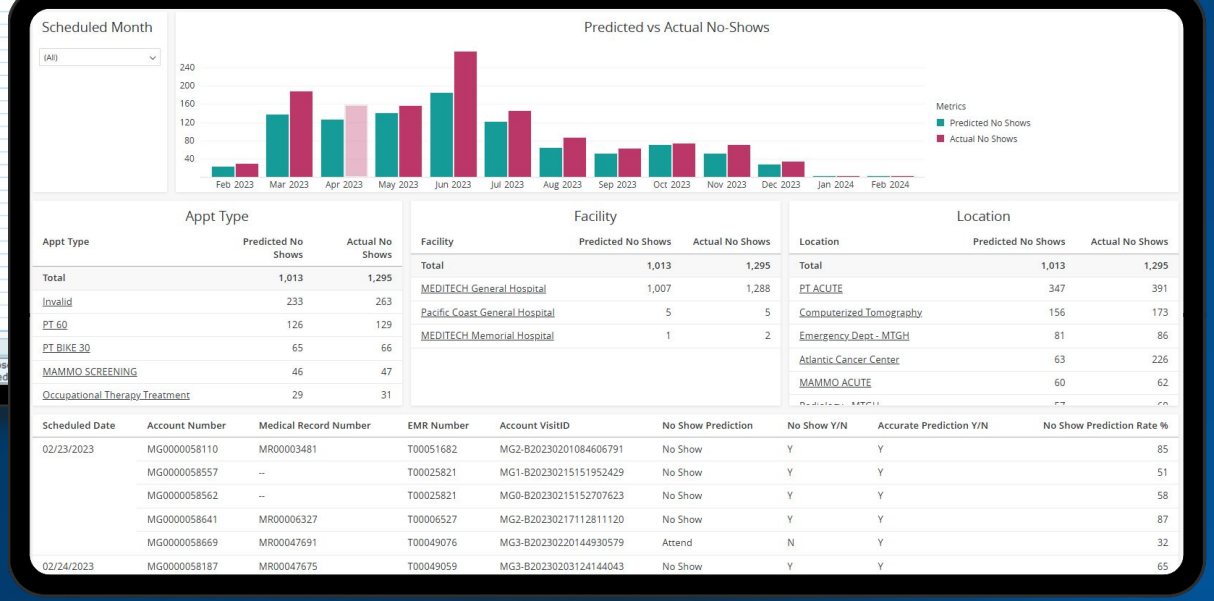
Please note: Designs are conceptual in nature, and subject to change based on research and user feedback.

Machine Learning
For Predicting Missed Appointment Risk



Above: Scheduler view of appointments, including no show likelihood

Below: Analytic dashboard showing model prediction accuracy



Appt Type

Appt Type	Predicted No Shows	Actual No Shows
Total	1,013	1,295
Invalid	233	263
PT 60	126	129
PT BIKE 30	65	66
MAMMO SCREENING	46	47
Occupational Therapy Treatment	29	31

Facility

Facility	Predicted No Shows	Actual No Shows
Total	1,013	1,295
MEDITECH General Hospital	1,007	1,288
Pacific Coast General Hospital	5	5
MEDITECH Memorial Hospital	1	2

Location

Location	Predicted No Shows	Actual No Shows
Total	1,013	1,295
PT ACUTE	347	391
Computerized Tomography	156	173
Emergency Dept - MTGH	81	86
Atlantic Cancer Center	63	226
MAMMO ACUTE	60	62

Scheduled Date	Account Number	Medical Record Number	EMR Number	Account VisitID	No Show Prediction	No Show Y/N	Accurate Prediction Y/N	No Show Prediction Rate %
02/23/2023	MG0000058110	MR00003481	T00051682	MG2-B20230201084606791	No Show	Y	Y	85
	MG0000058557	--	T00025821	MG1-B20230215151952429	No Show	Y	Y	51
	MG0000058562	--	T00025821	MG0-B20230215152707623	No Show	Y	Y	58
	MG0000058641	MR00006327	T00006527	MG2-B20230217112811120	No Show	Y	Y	87
	MG0000058669	MR00047691	T00049076	MG3-B20230220144930579	Attend	N	Y	32
02/24/2023	MG0000058187	MR00047675	T00049059	MG3-B20230203124144043	No Show	Y	Y	65

Please note: Designs are conceptual in nature, and subject to change based on research and user feedback.

In Conclusion...

As you explore how AI can elevate your healthcare organization, remember that success isn't just about the technology – it's about **partnering with a vendor who addresses the full journey of AI adoption.**

The true impact of AI in healthcare relies on a keen understanding of how this technology augments workflows, leverages meaningful partnerships, and **includes clinicians in the design and feedback process to ensure that solutions are intuitive and deliver value.**

Take the next step – discover AI solutions that align with your organization's needs and shape the future today.

Your next chapter starts **now.**

Let's work on it **TOGETHER**.

- **Listen to our podcast**
  "Seizing the AI Advantage"
- **Read our blog**
  "5 steps to take before embarking on your AI journey"
- **Subscribe to our newsletters**
- **Check out our Thought Leader Webinar Series**
  featuring AI and other vital topics

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