aiva

SOLUTION BRIEF:

Conversational Charting for Nurses

Documenting to the EHR is a necessary but extremely time-consuming task for nurses. It dominates their shifts, reduces face-to-face engagement with patients, adds to overtime and contributes to burnout. Technology has existed on the physician side to assist with documentation for years, but until now nursing workflow was not the focus. Fortunately, new applications powered by artificial intelligence (AI) are arriving that let nurses use conversational voice or text to write to EHR flowsheets – as well as handle other tasks – potentially saving hours of time per shift.

In this Solution Brief, Aiva addresses key issues around controls for nurses:

- ✔ Sizing up the problem.
- ✔ Adding conversational documentation.
- ✔ Identifying the best charting tasks to automate.
- ✔ Ensuring accuracy and security.
- ✔ Going beyond documentation.
- ✔ Measuring impact.

Sizing Up the Problem

Documentation takes time away from direct patient care, taxing nurses and potentially undermining outcomes.

- Nurses document 600-800 data points in the EHR during a 12-hour shift. [1]
- US nurses spend 25% to as much as 41% of their shift on documentation. [2]
- Frontline staff struggle to balance documentation and patient care, feeling documentation burden compromises care. [3]
- Documentation burden is linked to clinician burnout. [4]

The problem affects hospitals' bottom line. It drives up labor costs – burned-out nurses means higher turnover – but also operational costs. For example, when nurses are overwhelmed they're less likely to fully document some of their tasks – especially high frequency ones like pain assessments and repositioning. Missing or partial documentation is costly, especially if complications arise, like with hospital-acquired pressure injuries (HAPIs).

- 36% of nurses want to leave their current job. [5]
- $56,300 cost per bedside RN turnover. [6]
- $500 up to $70,000 cost of hospital-acquired pressure injury (HAPI). [7]

In addition to reducing hard costs related to turnover and issues like HAPIs, health systems can gain efficiency savings by letting their nurses spend less time in front of the EHR. Taking just one frequent charting task as an example, Aiva clients have estimated that keyboard entry of pain reassessments typically takes 3 minutes and that voice documentation could cut that down to just 33 seconds. That would free up nearly 10,253 minutes annually per nurse. At an average hourly wage of $42.80, that would translate into $7,313 in time savings per nurse just for that one type of task – time that can be redirected to higher-value hands-on care.

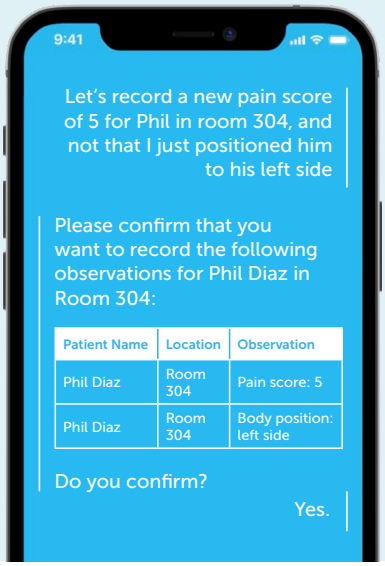
Charting On The Go

Much of the time and hassle of charting isn't the actual data entry itself – it's turning away from the patient, sitting at a computer, logging into the EHR, finding the right patient, navigating to the right flowsheet and jumping between fields. Conversational documentation eliminates that extraneous work. Instead, a mobile app like Aiva lets nurses write to the flowsheet by just saying or texting the data and then confirming it before it's saved. Speaking into a mobile app has been shown to be 3x faster than typing, so efficiencies can come from both eliminating EHR navigation and spoken (vs typed) entry.[8]

Note that speech or text entry doesn't have to follow a particular script or format; you can just talk naturally. That's because these mobile apps use Large Language Models (LLMs) like GPT-4 from OpenAI, Claude from Anthropic and Gemini from Google, which are extremely good at understanding and responding to what you say.

In fact, LLM-powered apps are intelligent enough to understand multiple entries in a single command.

MULTIPLE ENTRIES IN A SINGLE COMMAND.



Identifying the Best Tasks for Conversational Charting

When they first deploy conversational charting, Aiva clients typically choose a handful of tasks to start with. Usually it's the highest volume tasks where the actual flowsheet entry is a small portion of the overall time in the EHR. These can vary greatly by the type of facility or unit, but here are some common ones and why they're so important.

Top 4 Initial Conversational EHR Tasks

Pain Assessments	PRN pain medications must be documented and pain reassessments must performed in a timely manner. (Joint Commission, 2017)
Positioning/ Repositioning	Required to avoid or alleviate pressure injuries.
Intakes & Outputs	Physicians need accurate and timely charting of Is & Os to inform treatment. (Liaw & Goh, 2018)
Restraints	Patient record must show assessment and either continued or discontinued usage of restraints. (CMS, 2008)

Ensuring Accuracy and Security

When new tools make things easier, there's a natural concern that accuracy or security might be compromised. There are several ways that conversational apps like Aiva address these types of questions:

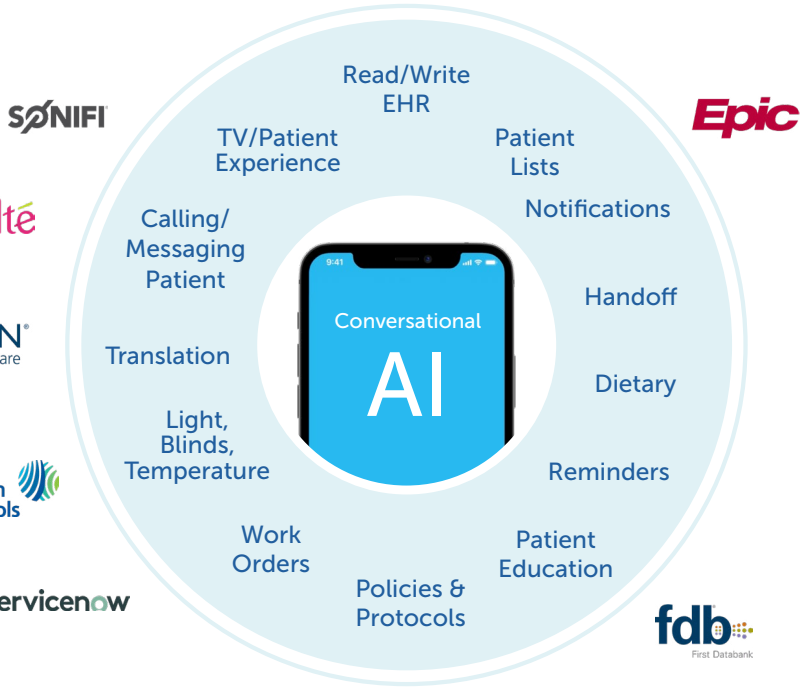
- **How do I know the right nurse is charting?** User access control and room assignment are managed through your existing staff authentication method (SAML) and role assignment feeds via ADT.
- **Can the app pick up ambient conversations by mistake**? The app includes a failsafe UI: it only activates when the Talk or Text button is pressed, preventing accidental input.
- **How can we ensure charting accuracy – right data to the right patient record?** Before saving to the record, the app repeats the data you're inputting and tells you which room and patient name it's going to. It's worth noting that, in most EHRs, there is no similar preview or confirmation step for typed entry, so in that respect conversational charting can better prevent errors.
- **How do we avoid partial or incorrect inputs?** The app can prompt nurses when a field isn't filled with an appropriate data value or when they left a required field blank while filling out others.
- **How is PHI protected?** Any PHI data is communicated with the EHR securely via VPN, and Aiva, for example, stores it in a HIPAA-compliant cloud platform.
- **How is data protected?** No audio data is retained. No user data is used in the training of AI LLM models.

Going Beyond Documentation

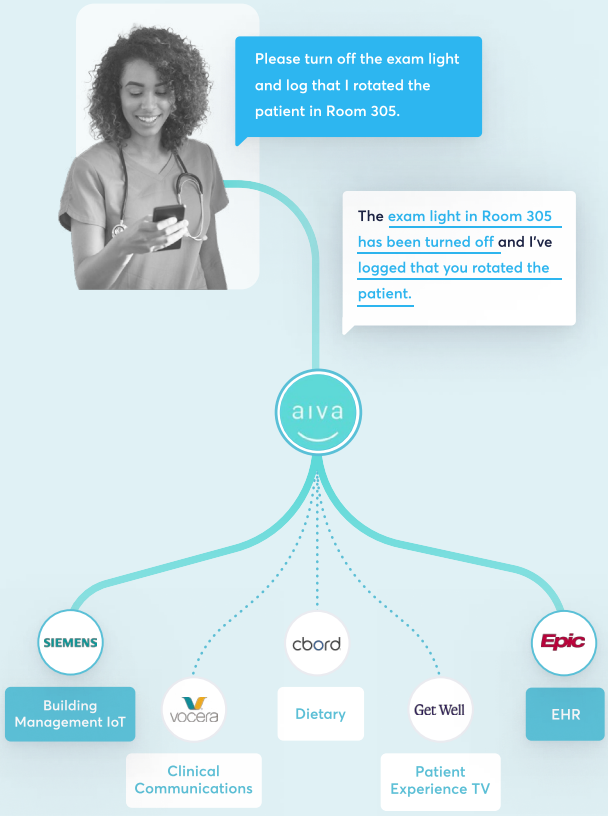
While charting gets all the bad press, there are many other tasks that take nurses away from direct patient care. Some of these involve other aspects of the EHR (like patient lists and notifications), but many deal with other programs (like messaging apps, work order systems and policy & protocol guides), equipment (lights, blinds, thermostats, TVs, iPads), printouts (meal menus, medication education) – and even sticky notes (reminders, handoff reports).

One of the most helpful things about conversational apps is that they make these other tasks easier. For example, Aiva lets nurses execute all of the tasks above, including the ones involving other programs and equipment. The key is 10+ integrations with the systems that nurses use all day every day.

AI-ASSISTED TASKS & RELATED INTEGRATIONS



MULTIPLE REQUESTS IN A SINGLE COMMAND



These integrations are especially powerful when you remember that conversational apps can handle multiple requests in a single command.

One of the handiest features of a virtual assistant is Reminders. With so many tasks to keep track of, nurses often have to jot down notes or sit at a nurse-call terminal to set pain re-evaluation reminders, re-positioning reminders or even room readiness notifications. Using an app like Aiva, they can instead set these kinds of reminders and notifications with their voice -- either in the patient room or anywhere else. This promotes mobility and autonomy of practice (a big nursing satisfier) and allows for the removal of excess hardware.

Policies & Protocols is another key use case. Nurses can now just tell an app like Aiva to read or display their hospital's policies, procedures and even checklists. Easier access to critical information positively impacts care delivery – especially for newer nurses.

Measuring Impact

Data-driven providers establish success metrics before implementing new technologies. Conversational charting metrics vary widely based on company priorities, but here are some examples:

Conversational Tasks	Success Metric
Charting	• Decreased time spent in EHR • Higher charting completion rates • Fewer charting-related citations
Notifications (e.g., of lab results or discharge orders)	• Fewer delays in treatment or discharge • Faster room turnover
Shift handoffs	• Reduced usage of handwritten notes or "nurse's brains" • Less overtime needed to complete handoff reports
Dietary	• Reduced time spent on paper menus and order forms • Fewer nurse calls to Dietary
Reminders	• More timely execution of tasks like pain assessments, repositioning
Patient education	• Less time using printouts or navigating education on TV
Policies & protocols	• Reduced use of print or online reference guides
Work orders	• Less time in the ticket system • Faster submission and resolution of tickets
Room controls	• Fewer room entries to adjust lights, blinds and thermostats • Higher HCAHPS due to patients getting quicker results
Translation	• Less time finding/using interpreter services tablets/kiosks/carts • Faster, easier non-clinical translation with a HIPAA compliant application
Calling / messaging patients	• Fewer room entries for lower-value informational exchanges
TV control	• Less time spent helping patients operate TV
Overall	• Nurse satisfaction scores • Nurse retention • Conversational assistants will play a key role, reducing busywork spent in EHRs and other systems.

Conclusions

- Assistive technology is required to help nurses be more efficient, get more quality time with patients, practice at the top of their license – and find more joy in their jobs.
- Conversational assistants can play a key role, reducing busywork spent on EHRs, other programs, other equipment and printouts.

About Aiva

Aiva is the leading virtual assistance platform for healthcare and assisted living.

The company was created with a simple goal: to use voice to improve the wellbeing and experience of patients, seniors and professional caregivers.

Our platform allows users to input commands using conversational voice and text and allows staff to communicate through calls, audio messages and in-room digital signage. We integrate with 40+ systems already found in acute and long-term care communities, enabling virtual control over systems like lighting, blinds, thermostats, TVs, EHRs, patient experience platforms, telecommunications and medication education.

Clients use Aiva's dashboard to manage voice assistants like Amazon Alexa devices, as well as other connected devices like smart lights and thermostats. The dashboard also offers analytics, as well as easy tools for managing the content delivered through Alexa devices.

Aiva provides virtual assistance in more than 10,000 rooms across the U.S. and Canada. Clients include Cedars-Sinai Medical Center, BayCare Health, Houston Methodist Hospital, Boston Children's Hospital and Moffitt Cancer Center. Aiva is based in Los Angeles, and investors include Amazon and Google.

Benefits

- **For patients**: More control, convenience and entertainment
- **For nurses:** Less busywork, more time for hands-on care
- **For administrators:** ROI from greater nurse efficiency, lower staff turnover and higher HCAHPS

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