Augmedix Go

by Director of Documentation Innovation

AI Ambient Scribes

Details

Review Date	11/16/2023
Purchase Date	Q1'22
Implementation Time	6-8 weeks
Product Still in Use	Yes
Purchase Amount	Per provider per shift
Intent to Renew	100%
Review Source	Vendor

Product Rating

Product Overall	4.0
Use Case Fit	3.0
Ease of Use	5.0
API	N/A
Integrations	N/A
Support	5.0
Value	3.0

About the Reviewer

N/A

Reviewer Organization

Hospitals / Health System

Reviewer Tech Stack

Meditech

Other Products Considered

N/A

Summary

- **Product Usage: Augmedix Go is used to facilitate real-time medical documentation by capturing information during patient encounters and transforming the data into structured clinical notes.**
- **Strengths: Augmedix Go possesses an agile and adaptable approach, compatibility with emergency department workflows, a personalized onboarding process, ability to distinguish between multiple speakers, and impressive customer support.**
- **Weaknesses: Note quality can be variable due to instances of language misunderstandings and redundancy; audio capture in noisy settings can be challenging, there isn't seamless integration with the electronic health record system yet.**
- **Overall Judgment: Augmedix is considered an excellent choice for reducing the burden of documentation on providers and enhancing patient care, despite the need to improve note quality and indoor-noise reduction capabilities.**

So today we're chatting about Augmedix and how it's used at your company. Before we jump into that, could you give a brief overview of the company and your role there?

We're a for-profit health system with hospitals nationwide. I work in care transformation and innovation, and specifically oversee documentation innovation.

What was the need that drove you to look for a solution like Augmedix?

Our department was established during COVID to drive innovation and move away from current hospital operations, focusing on the future. Our main initiatives were related to nursing staffing and reducing provider documentation burden, which led us to Augmedix. Providers have increasingly faced the task of capturing data in EHR, often for requirements they find clinically irrelevant. This burden has only grown with new regulations and corporate data needs.

We were already using Augmedix before they started leveraging large language models, but we saw a significant improvement with the new technology. Our objective was to reduce the time providers and nurses spent on documentation. Augmedix stood out because it captures information ambiently during patient encounters, unlike Dragon Dictation, which, despite eliminating typing, still demands active interaction with a computer. This ambient documentation approach helps providers avoid after-the-fact documentation errors, like confusing which ankle a patient sprained. We wanted the providers to be able to focus on patient care rather than EHR documentation.

What were some of the key requirements that you were looking for as you evaluated solutions in this space?

We prioritized finding a partner that could evolve with us, someone who embraced our vision and was prepared to tackle new challenges. Augmedix had already been integrated into our team before I joined, and they stood out as an agile company, willing to explore uncharted territories like the emergency department (ED), which others were hesitant to do.

Our focus was on care transformation and innovation initiatives for the ED. If we could successfully implement a solution there, it could potentially be scaled across other departments. Augmedix, with a decade of experience predominantly in the ambulatory setting, proved to be an adaptable partner, eager to understand the complex and unpredictable workflow of the ED as opposed to the more structured ambulatory environment. They were open to learning and building alongside us, which was crucial given the dynamics of the ED, such as lack of set schedules, unpredictable patient arrivals, emergency interruptions, and provider shift changes.

How was the onboarding and setup process with Augmedix?

The onboarding and setup process with Augmedix was quite personalized. Augmedix provided an implementation consulting team that collaborated with our corporate team to ensure a thorough understanding of the product and to set clear expectations for the providers. We organized on-site training to familiarize providers with any new technologies and outline the workflow.

During the go-live phase, there was a focus on adjusting to verbalizing visits and refining the documentation process based on individual provider preferences, which can vary significantly in the emergency department, as opposed to a clinic setting where there's typically more uniformity in documentation style. Overall, the initial setup was

straightforward; it involved creating an account and using an iPhone supplied by Augmedix to connect the providers to the service. But the onboarding was comprehensive to accommodate the unique requirements of each provider.

Was there any customizing or tuning of the model to specific note templates or the nuances of emergency room visits, or was it an off-the-shelf product?

The initial models only contained clinic data and basic medical knowledge. However, over the last two years, the algorithm has been fine-tuned to better capture the specifics of emergency room documentation. Larger data samples are needed for continued improvement. Augmedix is developing Augmedix Go, a fully automated AI solution, and they're creating an emergency user interface to cater to the unique needs of emergency rooms, as the current UI is designed for ambulatory clinic use. Development efforts are ongoing in this area.

How does Augmedix fit into your workflow?

For the Augmedix Live product, which is what we're currently using, the provider uses either a Bluetooth microphone or their cell phone's microphone for real-time medical documentation. When the provider is about to enter a patient consultation, they inform the Medical Documentation Specialist (i.e., the remote scribe, or MDS), which patient they're going to see and what their chief complaint is. On entering the room, they gain patient consent for using the Augmedix technology. Gaining patient consent had originally been anticipated as a problem, but it hasn't been an issue so far. We had to incorporate a little bit of change management, mostly related to providers needing to verbalize the patient's symptoms clearly for accurate documentation as they proceed through the encounter. After the visit, the provider can add additional information or clarifications outside the patient's presence.

The visit is recorded, and natural language processing (NLP) technology begins structuring the clinical note. The data is processed through Augmedix's Notebuilder platform, which structures it and prepares it for integration into electronic health records like Meditech, although API integration is still under way.

The MDS monitors the visit live, can ask the provider questions for clarification, and can begin drafting the note using the information collected by the NLP. They can navigate various fields and input data based on the transcript. The data runs through Notebuilder and then is modified as necessary by the MDSs. It's then sent to the provider in draft form for review. The provider can edit the note, finalize it, and then sign off to complete the documentation process. This system allows providers to maintain the natural flow of patient encounters while ensuring thorough and accurate medical documentation.

How quickly are the notes typically turned around?

The turnaround time for notes in the ED is approaching 10 minutes, which is considered optimal for the fast-paced environment. Initially, the average was between 20 and 25 minutes, with some cases taking up to an hour. In collaboration with Augmedix, efforts have been made to reduce this time substantially. Operational changes have been implemented to support this goal, and while there's a transition period, progress is being made to consistently achieve the 10-minute target.

How does Augmedix handle complicating factors, like extraneous noise?

It can cause issues in some settings. We advise our providers to use their discretion and consider the tool as an added resource rather than a necessity in every setting. The current setup involves an iPhone paired with a Bluetooth microphone. In louder environments, like busy emergency departments, this setup generally performs well, but there

are limitations, particularly when it comes to low-speaking patients in acoustically challenging spaces. The Bluetooth mic may help filter out background noise, but it's not a perfect solution. There have been instances where medical documentation specialists report that they couldn't capture the necessary information due to audio issues.

Augmedix is exploring advancements in hardware to improve audio capture in noisy settings. Investigations include tests with the Apple Watch, which has a microphone with performance comparable to the iPhone and may be in a better position to capture sound due to its placement on the wrist. Additionally, options like in-room microphones or more stable hardware are being considered to enhance the service's ability to accurately pick up ambient speech.

Assuming that it captures the sound well, is it effective at handling multiple speakers?

The platform is designed for dialogue, not just dictation, so it can distinguish between multiple speakers, such as the healthcare provider, patient, and a family member. It performs exceptionally well with clear audio, although challenging acoustic conditions may occasionally affect its performance. However, improvements in hardware are anticipated to enhance its capabilities. Currently, we're satisfied with its performance. The next version, Augmedix Go, has demonstrated impressive results during demonstrations with healthcare providers, operating without the need for human oversight.

Can you talk about the new product, Augmedix Go?

Augmedix Go, unlike Augmedix Live that we're currently using, eliminates the need for a human in the loop. That will help in scaling services and reducing complexities. It integrates with Meditech, importing patient information directly into Augmedix. Providers can select a patient, record their encounter, and receive a draft note in under one minute, rather than the current 10 minutes. They can then edit the note directly or use voice-to-text functionality. We're also developing the ability for providers to make multiple recordings to refine the note further.

The immediate, unfiltered feedback provided by Augmedix Go is beneficial for change management, as providers can see and correct errors on the spot, helping them understand how certain phrases are captured. We're excited about this platform, and in collaboration with Meditech, we're building APIs to seamlessly integrate the data into their systems.

Currently, two providers are using Augmedix Go for user interface (UI) and training purposes, with plans to expand the test group significantly by year-end. Our focus is on the UI experience rather than note output at this stage. We want to ensure recording and editing functions are intuitive and user-friendly. We anticipate starting to generate notes through the platform at the beginning of the year and will monitor various metrics to gauge success before potentially scaling up to all providers at our pilot sites. The rollout is moving faster than anticipated.

How is the quality of your current notes with Augmedix Live?

The quality has been mixed. The MDSs have improved significantly over the past six months, especially in their familiarity with Meditech and emergency medicine, but the MDS team is based in Bangladesh, and they sometimes encounter language barriers or misunderstand American idioms, which impacts note quality. For example, a phrase like "T-boned in a car accident" was misinterpreted in the documentation.

Another issue is the occasional redundancy in notes, likely stemming from Augmedix's language model's prompting rather than the MDS adding unnecessary information. These redundancies indicate a need for refinement in the technology to ensure notes are concise and avoid repetition.

We've seen variable performance from different MDS staff, leading to discrepancies in provider satisfaction. In response, recent initiatives to enhance the proficiency and operations of the MDS team seem to have positively affected the quality of documentation. While these improvements are under way, the focus remains on training our models with ambient speech recognition technology for the transition to Go. Our goal is not to perfect the current system but to maintain sufficient operational efficiency to avoid overburdening our providers.

Do you have a sense yet as to the quality of Augmedix Go?

In the demonstrations, it's doing a really good job of transcribing conversations into structured notes. However, our organization is looking for at least 50% note completion and accuracy without provider editing before we integrate it with our EHR system. Currently, the technology has not reached this threshold due to limited data samples. We've set a goal for the ED to achieve 70% note accuracy by Q3 of next year. That, added to the production of the note within a minute post encounter, would satisfy our providers.

The internal target is to hit the 50% accuracy milestone by Q1 of next year, though there's potential to reach it as early as December, with progress accelerating weekly. Despite this, we remain cautious about implementing new systems into our operations. During one demonstration, though the solution captured the entire conversation, a mistake was noted where it recorded "type 2 diabetes" instead of "type 1 diabetes." Such errors are easily corrected, but they highlight the necessity of reaching the desired accuracy before deployment.

To assess note quality, starting in January, we plan to employ strategies including a note comparator tool. This tool will help us determine discrepancies between the notes that have been processed by MDSs and the AI-generated final notes. That will help us distinguish between minor grammatical issues related to human processing and significant clinical inaccuracies, such as medication or diagnosis errors, made by Augmedix, which could lead to adverse outcomes. We are prioritizing these capabilities to ensure clinical safety and accuracy.

Once you move to Augmedix Go, is there going to be an integration directly with your EHR?

We're collaborating with Meditech and Augmedix to develop an API that will integrate Augmedix Go directly with the EHR. Our initial integration is targeted for completion by the end of the year, with more advanced functionality, like populating discrete fields in Meditech, planned for the first or second quarter of next year. The aim is to move beyond basic text entry to improve the documentation process significantly.

Effective integration with EHRs is essential for the success of ambient speech technology in healthcare. While these technologies can enhance provider satisfaction, without seamless EHR integration, they fall short of their potential and may incur high hidden costs. We have a great partnership with Meditech and Augmedix, so the hope is that we'll be able to integrate with Meditech when we're ready to complete that step.

How has support been with Augmedix?

Our experience has been incredible. They are very responsive to all of our needs. We have a dedicated implementation group for our various facilities, and the customer support team ensures we're informed about any issues or developments. And we have a close relationship with their product team, holding weekly meetings to discuss development needs, enhancements, user interface progress, and strategize for long-term objectives. They have adapted well to our scale and the demands of emergency medicine, which is quite different from their typical approach for clinics. While we've encountered challenges, our collaboration with Augmedix has been a great success, and they have become true partners.

Do you feel you made the right decision in going with Augmedix?

Absolutely. We might have benefitted from spacing out the implementation across the three facilities; the idea being to gain more insights from the first before expanding to others. It is likely that starting with one large hospital and then evaluating if and when we should proceed would have been more effective than starting with a small hospital. The challenges we faced at the second facility were unique and not anticipated based on our experiences with the first due to differences in scale. We were a bit overconfident in the ability of the MDSs to quickly achieve competence and proficiency in ED documentation. But the issues were operational and related to the implementation speed, which was likely my oversight.

Regarding the technology, we made the correct decision. We did face a hurdle when Google announced they were discontinuing Google Glass, which was initially employed by Augmedix. This required a switch to iPhones for our training sessions, but that was merely a matter of timing and not a reflection on the technology's capabilities.