

For: Greg XXXX

Support for: Hairy Cell Leukemia

Greg, I wanted to share some information about hairy cell leukemia, a cancer that affects the blood and bone marrow. It's called hairy cell leukemia because the cancer cells appear somewhat hairy under a microscope. When these hairy cells accumulate, they can crowd out normal cells, making it more difficult for your body to fight infections, carry oxygen, and produce new blood cells. Here are some common approaches:

- Chemotherapy:** This type of medicine kills cancer cells or slows their growth. It's frequently used to treat hairy cell leukemia and a number of abnormal cells in the bone marrow.
- Immunotherapy:** This treatment boosts your body's natural defenses against cancer, involving medicines that specifically target the cancer cells.
- Monitoring:** If leukemia isn't causing any symptoms, doctors may keep an eye on it with regular check-ups and blood tests.
- Supportive care:** This includes treatments to manage symptoms and side effects, such as antibiotics for infections or blood transfusions if counts are low.

Life expectancy for people with hairy cell leukemia is generally good. Many live for many years after diagnosis. The 5-year survival rate is around 90%, and 27 years.

Greg, **lifestyle changes** may include adopting a healthy diet and maintaining a healthy weight. A balanced diet rich in vitamins and minerals can support the body's natural defenses against cancer. Regular physical activity and avoiding processed foods and red meat can also be beneficial. It's important to follow a healthy diet and manage side effects during treatment, such as nausea and loss of appetite.

Regarding its **curability**, hairy cell leukemia is treatable but not curable. Treatments are usually very effective in helping patients lead a normal life, but the condition often recurs. It's crucial to work closely with your healthcare team to find the best treatment plan for you. They can help explain the options and what to expect from each one.

Nursing First GenAI, Agentic AI & AI ASSESSMENTS & REASSESSMENTS

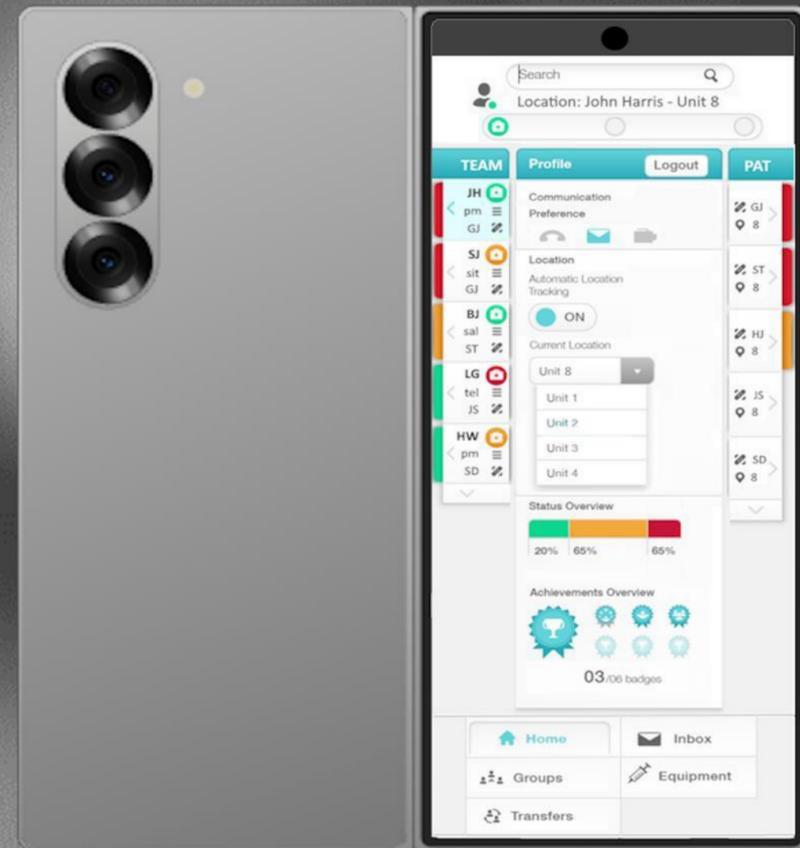
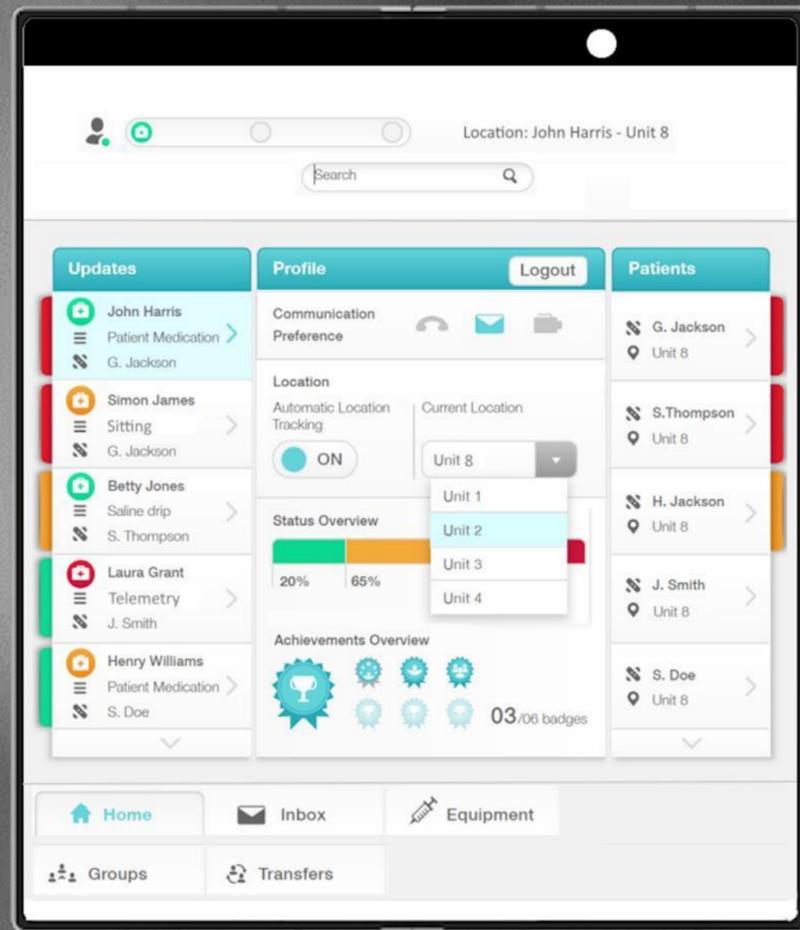
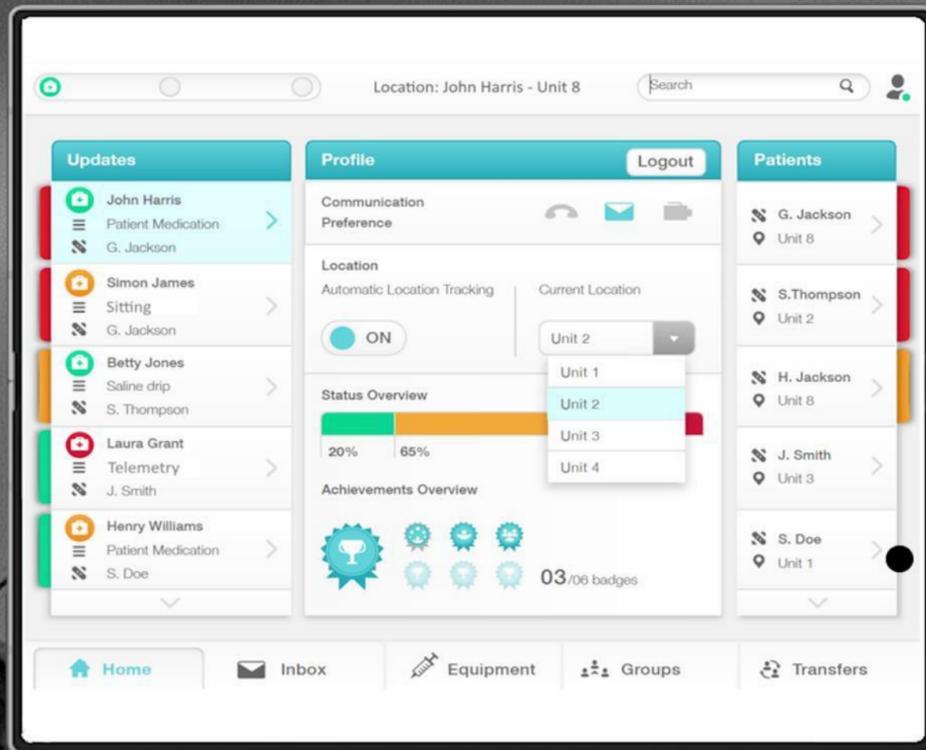


Contents

- 2 Nursing First: Empowering & Protecting Nurses**
- 4 Nursing First: What do Nurses do and Deconstructing Jobs**
- 6 Nursing First: Assessments and Reassessments**
 - **Why GenAI in Assessments**
 - **GenAI Architecture: Assessments**
 - **Processes & Use Cases**
 - **Initial Assessments**
 - **Co-Intelligence & Customization**
 - **Daily & Mid-Stay Assessments**
 - **Discharge Assessments**
 - **Automation & Prediction**
- 20 References**

Other Nursing First Articles: [Link](#)

- **Nursing First GenAI, Agentic AI & AI: Meet Eddie, Emma, Otto, & Seer**
- **Nursing First GenAI & AI: Foundation, Safety & Effectiveness**
- **Nursing First Outcomes – Revision 1**
- **Nursing First: MyAction Hub**
- **Introducing Nursing First**
- **Human Side of Virtual Nursing: Managing the Future**
- **Virtual Nursing: Shift & Augment Tasks**
- **Virtual Nursing: Inpatient Outcomes**
- **Virtual Nursing: Beyond Virtual Nursing 1.0**
- **Virtual Nursing: Early Wins**
- **Virtual Nursing Aligned to Command Centers**
- **Virtual Nursing: Lessons Learned**



Nursing First: Empowering & Protecting Nurses

Nursing First is the journey to new care models, achieving consistent excellence in care delivery while supporting and building trust and resilience among the nation's most prominent and most trusted professionals in healthcare -- Nurses. Earlier Nursing First articles describe the foundation on which AI and GenAI are helpful to achieving the Nursing First Mindset. First, Nursing First reinvents the care model to empower nurses to achieve better outcomes by leveraging virtual nursing, automation, and technology augmentation, as well as team-based staffing and provider consultations. Second, MyAction Hub is a capability that enables safety, coordination, and communication. Third, automation/augmentation continues to explore the use of AI and GenAI, particularly AI agents or digital humans responsible for aspects of nursing activities.

Nursing First's foundational capabilities:

1

Nursing First Mindset:

Nursing First aims to support nurses in practicing at the top of their license through a nurse-led care delivery model redesign, which fundamentally and sustainably addresses the challenges faced across the nursing profession^{1,2,3,4} while embracing applicable technologies. This approach directly involves nurses in creating new ways of working, which ultimately empowers them to operate in a professionally safe and supportive environment, elevates the patient care experience, and drives the necessary policy and behavioral changes required for continuous improvements.

2

MyAction Hub: Safety, Effectiveness & Co-Intelligence:

Nursing First's MyAction Hub enables safety, coordination, and communication among the care team. Team care is at the heart of most care models. AI agents should utilize the information known across the care team's use of MyAction Hub to ensure safety and adequate care. Specifically, an AI agent should be able to escalate care to a care team member who is available and within the patient's proximity. At times, an AI agent may redirect responsibilities for a patient to a nurse in the care setting who is closer and more readily available. Moving forward, it will be essential to support co-intelligence and collaboration with the new members.

3

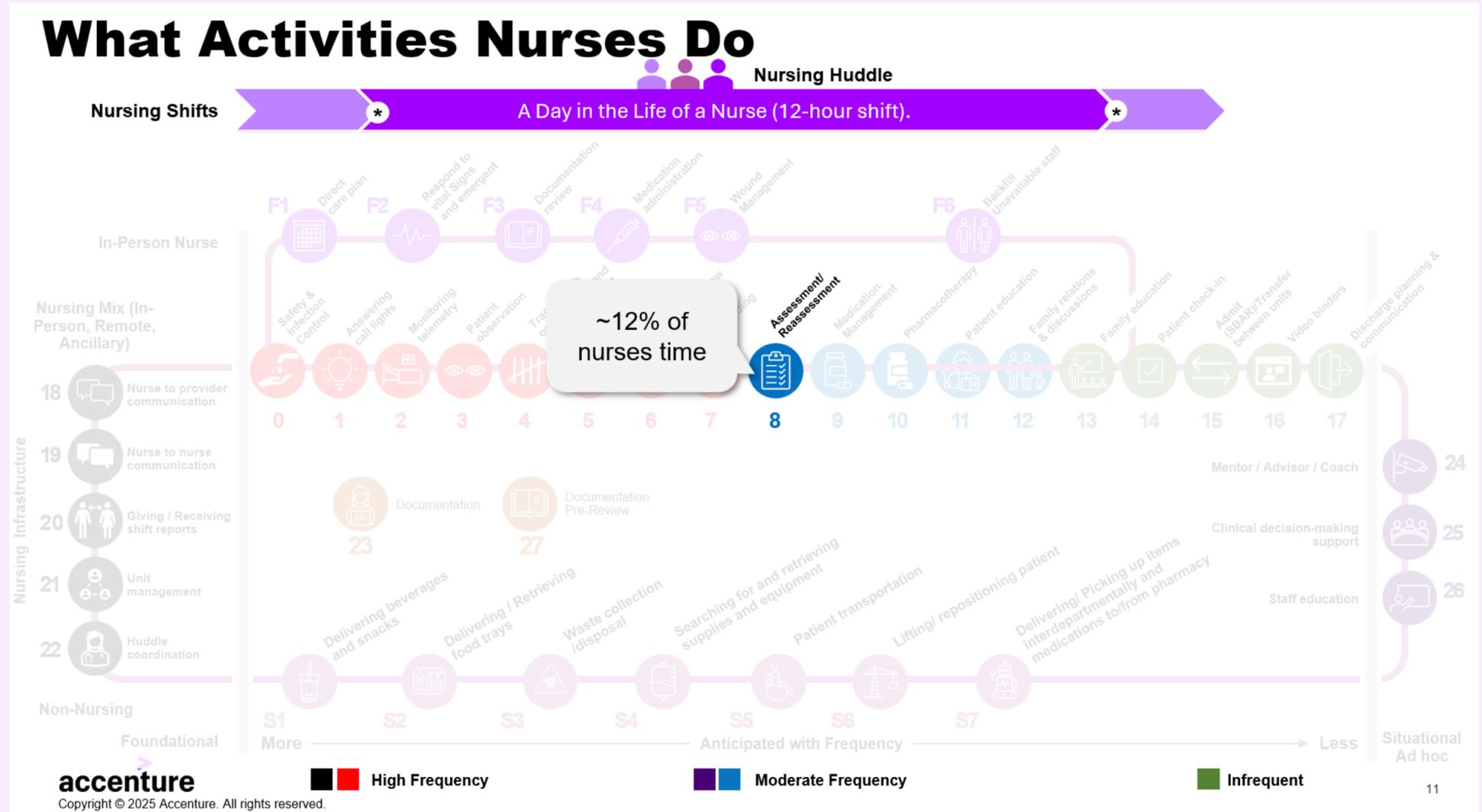
Understanding & Deconstructing:

At the core of Nursing First is empowering nurses through the recognition of the broad number of tasks that make up a routine day. Accenture has identified forty (40) activities that are common to nursing, with a particular focus on inpatient, acute nursing.

The goal of Nursing First is to deconstruct the job into tasks and subtasks within each of the 40 identified nursing activities. Then, reinvent workflows by utilizing the four levers of virtual nursing, automation/AI/GenAI, team support, and remote consultations — to perform the task or subtask.

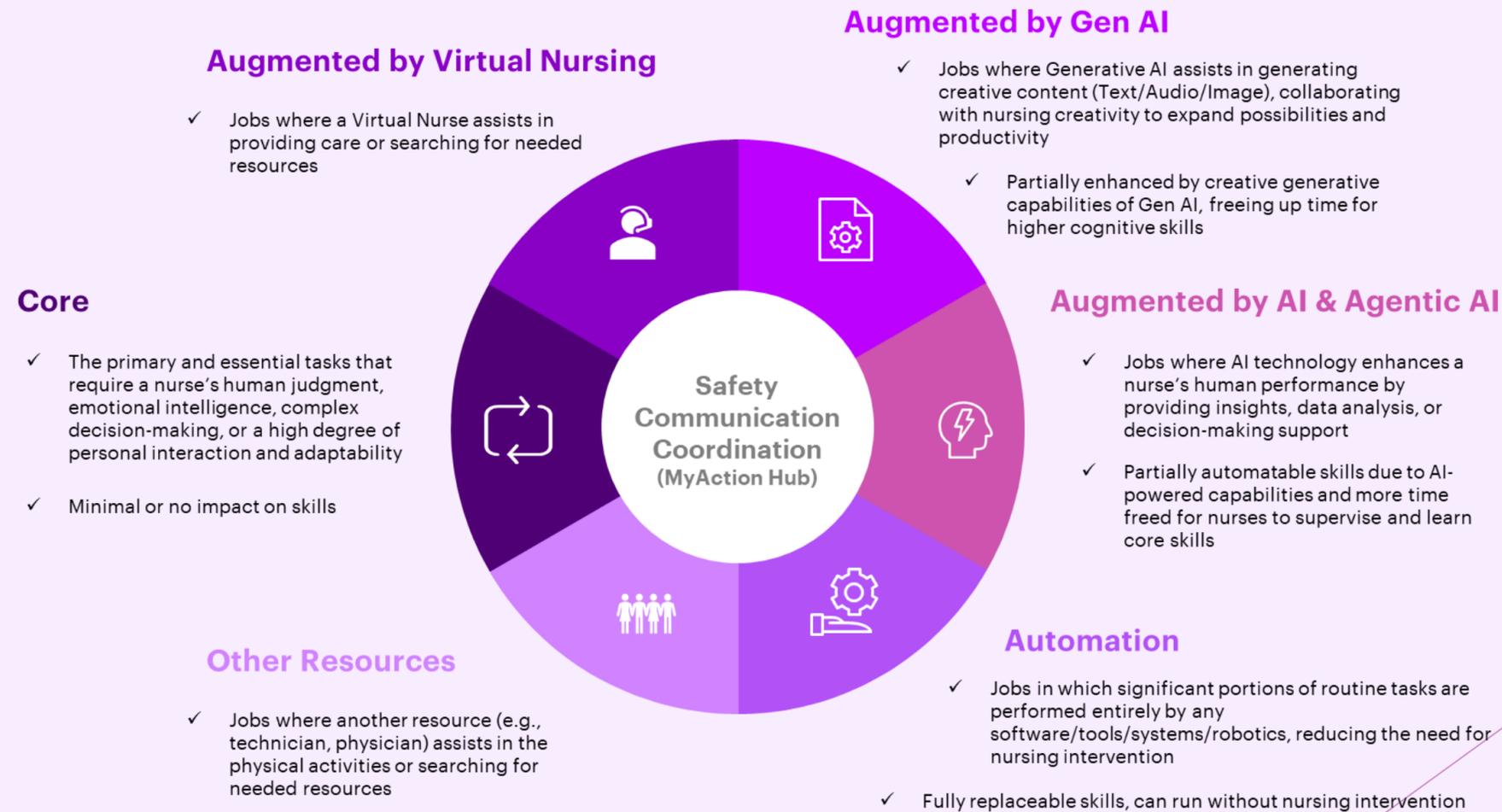
What Do Nurses Do?

Nurses are routinely asked to complete numerous, diverse tasks as part of their regular shifts. At the heart of Nursing First is understanding what a nurse does and then, during reinvention, allowing each nurse to operate at the top of their license – empowering each nurse and enabling their relationship with the patient and family. The reinvention of the Nursing First care model focuses attention on frequently performed tasks to achieve the most significant impact. For example, assessments and reassessments have been reported by some acute care, medical/surgical unit nurses to take up to 12% of their time.

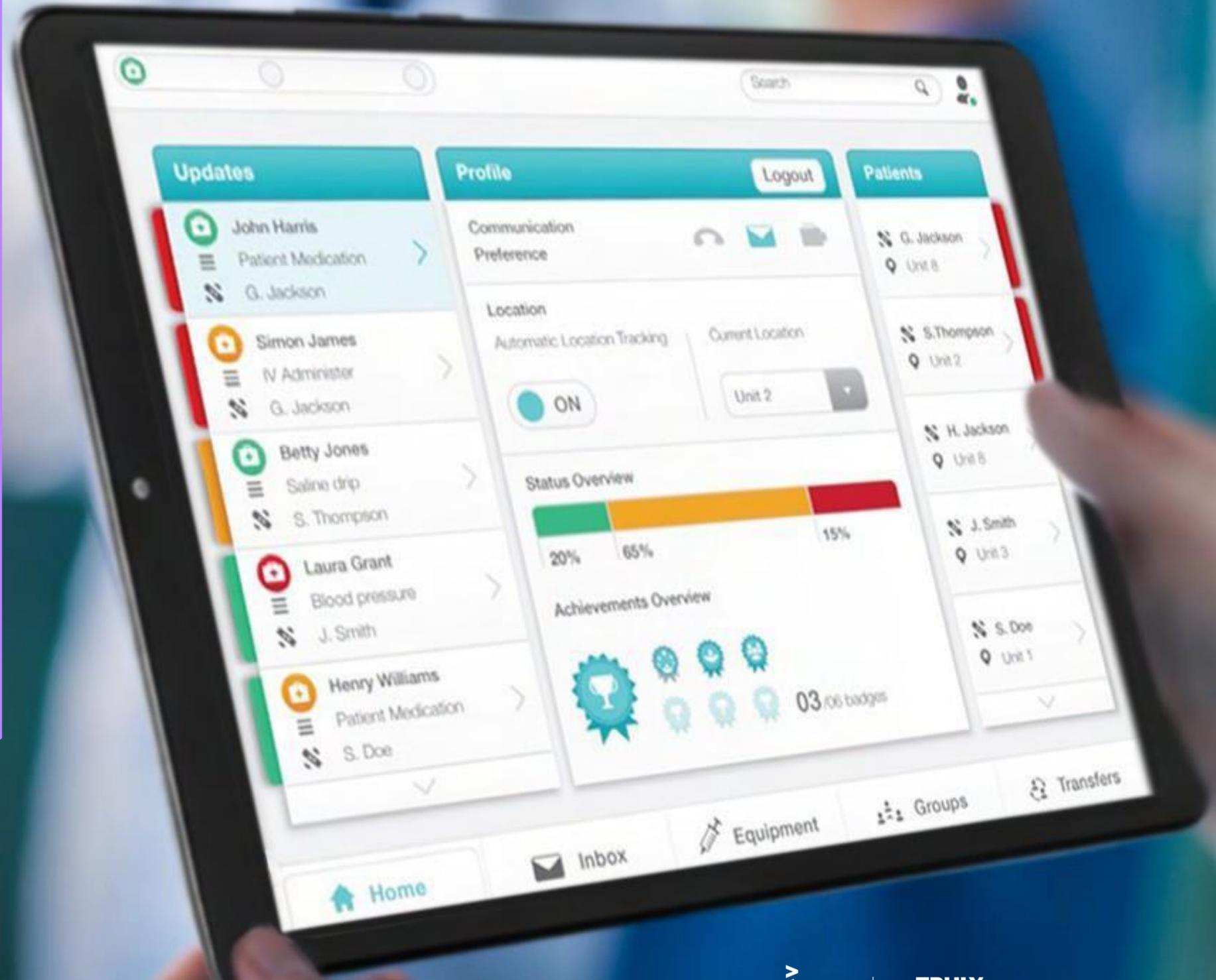


Deconstructing the Job and Tasks

The reinvention of the nursing care model is based on deconstructing tasks to identify how they can be augmented, supported, or automated so that the sub-task no longer needs to be completed by the current care setting nurse. The diagram below is the basis for this deconstruction and is the foundation of reinvention in many industries based on GenAI and Agentic AI.



Nursing First: Assessments & Reassessments





Why GenAI, Agentic AI and AI in Assessments

The integration of Generative AI (GenAI) and agentic AI into healthcare assessment and reassessment processes is reshaping how care teams deliver, document, and act on patient information. Traditionally, nurses and clinicians face heavy workloads, frequent interruptions, and delays in gathering comprehensive patient data—challenges that can compromise the quality and efficiency of care. GenAI and agentic AI agents act as digital collaborators, automating routine tasks, personalizing patient interactions, and ensuring that critical assessments are performed consistently and promptly. By leveraging these technologies, organizations can create a more responsive, data-driven, and patient-centered care environment, where both staff and patients benefit from enhanced support and communication.

Problem Solved

Time and Efficiency Constraints

- Nurses spend a significant portion of their shift (often over 36%) on assessments and reassessments, which limits their time for direct patient care.
- Frequent interruptions and competing priorities can delay or fragment the assessment process.

Inconsistent or Incomplete Data Collection

- Manual assessments may overlook important details or lead to variability across staff and shifts.
- Delays in gathering information from patients or families can hinder timely care planning.

Limited Patient Access and Responsiveness

- Physical nurses may not always be immediately available to answer patient questions or conduct timely reassessments, especially during busy periods or off-hours.

Staffing and Overtime Pressures

- Inefficiencies in workflow can lead to increased overtime and reliance on per diem or registry staff

Additional Value Points

Substantial Time Savings

- Automating routine and data-driven portions of assessments allows nurses to focus on high-value, in-person care.
- Virtual and agentic AI support reduces overtime and optimizes staffing.

Improved Clinical Outcomes

- More frequent, proactive, and holistic assessments help prevent adverse events and improve patient safety.
- Consistent data collection supports better care planning and interdisciplinary collaboration.

Enhanced Patient and Family Engagement

- Agentic AI agents can interact with patients in multiple languages, adapt content to comprehension levels, and provide education or reassurance on demand.
- Patients and families receive timely responses to questions, reducing anxiety and improving satisfaction.

Greater Operational Efficiency

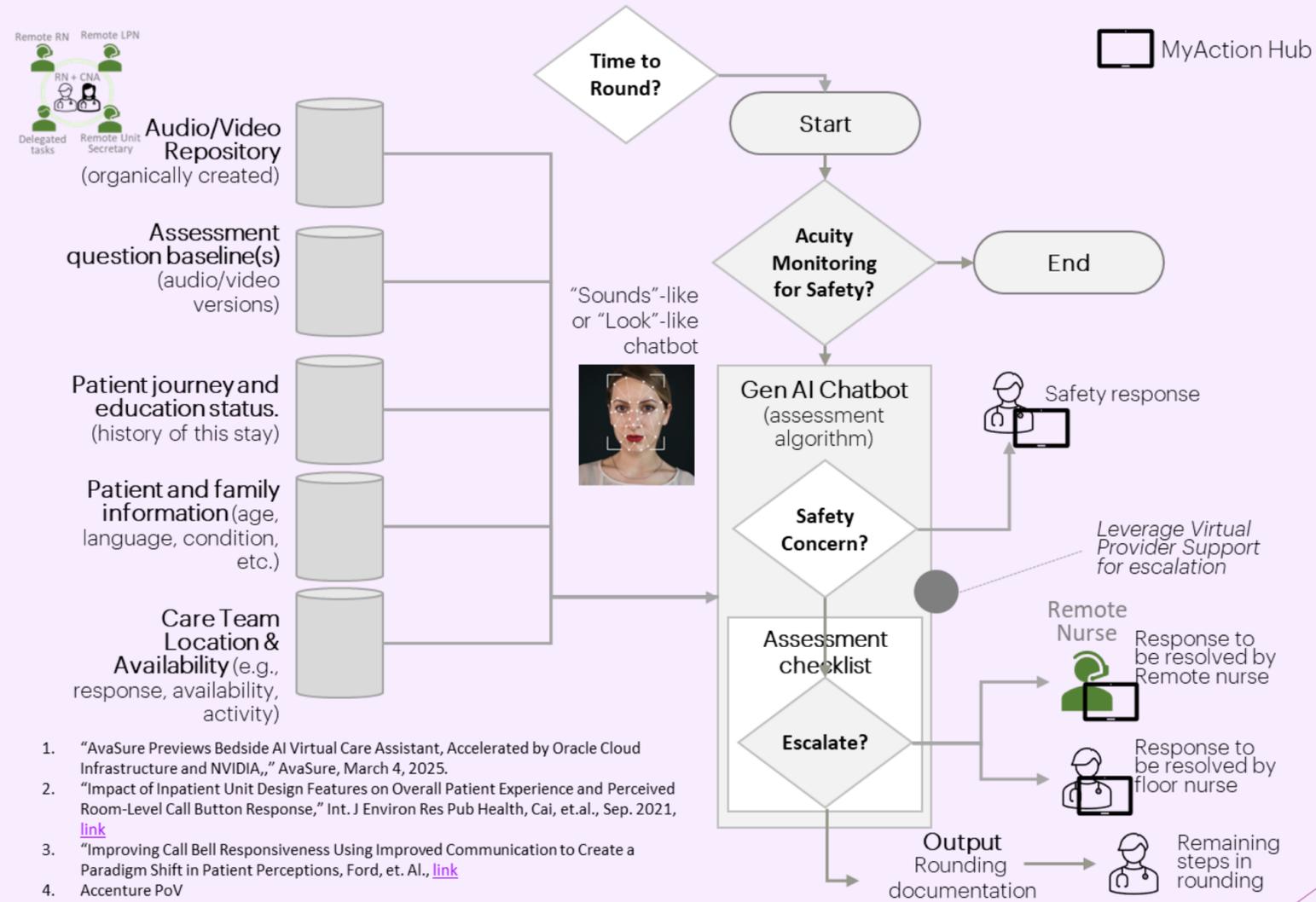
- Streamlined workflows and reduced manual burden enable organizations to scale care delivery and adapt to changing needs.

Timely, On-Demand Support

- Agentic AI agents are available 24/7 to respond to patient needs, answer questions, and conduct assessments—often faster than a physical nurse can be present.
- This immediacy ensures that patient concerns are addressed promptly, which supports better outcomes and higher patient satisfaction.

GenAI & Agentic AI Architecture: Assessments

The diagram below shows the high-level architecture for patient education, GenAI, and AI agents. The diagram begins when a patient, nurse, or system triggers that a patient's educational need has been requested or is ready for delivery.



Processes & Use Cases

Roles and Responsibilities

Responsibility: The core responsibility of conducting assessments and reassessments in healthcare is to ensure that each patient's condition is thoroughly and continuously evaluated throughout their care journey. This process establishes a comprehensive understanding of the patient's physical, psychosocial, and educational needs at admission, monitors progress and safety through daily and event-driven reassessments, and confirms readiness for discharge. Effective assessments and reassessments are foundational for individualized care planning, timely interventions, interdisciplinary collaboration, and optimal patient outcomes. The responsibility includes gathering accurate data, validating findings, engaging patients and families, and adapting care plans as conditions evolve.

Roles:

Physical (In-Unit) Nurses:

- Lead hands-on, physical, and critical-value assessments at the bedside.
- Validate findings, respond to acute changes, and ensure direct patient safety.
- Collaborate with the care team to adapt care plans and provide education.

Virtual Nurses:

- Support and augment in-person nurses by conducting remote observational, psychosocial, and educational assessments.
- Validate assessments using digital tools, reinforce patient education, and perform virtual rounding.
- Engage with patients and families to gather additional information and address needs that do not require physical presence.

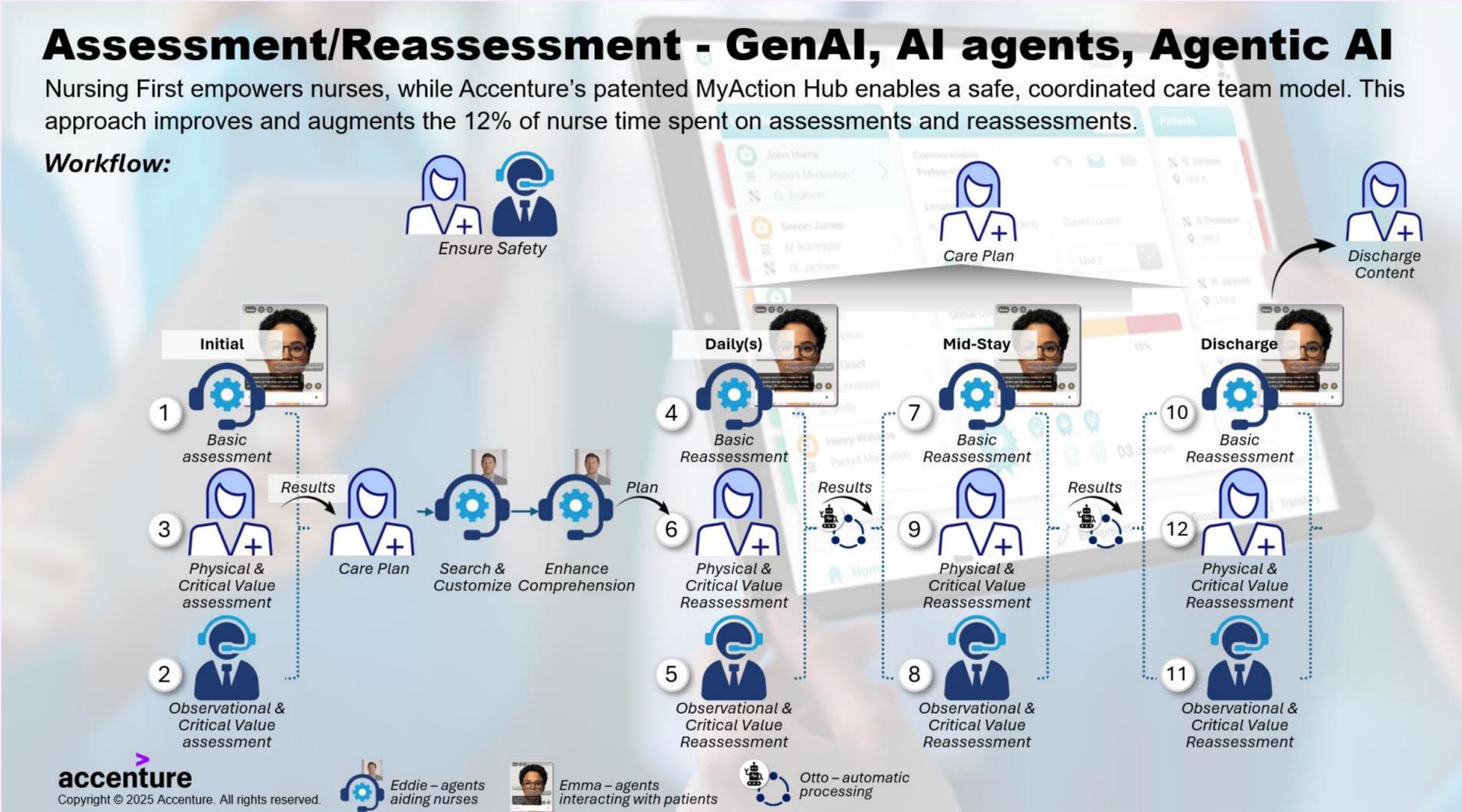
Agentic AI Agents:

- Emma (Patient-Facing Agent): Interacts directly with patients and their families in multiple languages, delivering assessments, education, and answering questions to ensure comprehension and engagement.
- Eddie (Support Staff Agent): Assists professionals by finding validated information, customizing content, and supporting research or documentation, streamlining the assessment workflow.
- Otto (Automation Agent): Automates background processes, integrates data from various sources, and triggers next steps or alerts based on assessment results.
- Seer (Predictive/Prescriptive Agent): Analyzes trends, predicts risks, and prescribes targeted interventions or follow-ups, proactively informing care decisions.

Based on Specialized Language Models

- **Patient Journey and Education Status.** According to the care plan, patient education is to be delivered at a specific point in time. Additionally, the context of education encompasses both past and future educational experiences.
- **Assessment/Reassessment Clinical Workflow and Standard Operating Procedures.** The baseline, condition-specific assessment/reassessment procedures and criteria, as well as a clinical workflow to understand dependencies between care team members, including agentic AI.
- **Patient and Family Information.** Demographic, clinical, comprehension, language, care team relationships, and other patient-specific information that support the customization of patient education using GenAI.
- **Care Team Location & Availability.** The current care team has varying degrees of responsibility for the patient at the time patient education is to be provided. Additionally, it is essential to note what the care team members are doing at the time patient education is provided, as well as their location.
- **Audio/Video Repository.** A controversial SLM that would support the content that nurses have approved and contributed to, to be delivered in video and audio form, not as a generic AI Agent, but as a reflection of the appropriate member of the care team.

As is the case in many nursing care workflows, achieving outcomes is the result of the actions and coordination among the care team. As efforts continue to automate and augment tasks, having a clear picture of workflows, roles, and responsibilities is crucial. This clear picture enables the identification of data, conditions, and criteria to ensure tasks are safe and effective. The high-level workflows below illustrate the various points when patient education occurs, how the entirety of the care team might perform it (care setting nurses, virtual nurses, and AI Agents), and orchestration to reach outcomes.





Assessment & Reassessment Process by Role

Step	Physical Nurse (In-Unit)	Virtual Nurse	Agentic AI (Emma, Eddie, Otto, Seer)
Initial Assessment	Starts physical exam, validates findings	May initiate psychosocial/educational assessment if available	Emma may start with patient self-report; Eddie provides content; Otto automates data capture
Daily Reassessment	Initiate bedside checks, updates care plan	May start virtual rounding, reinforce education	Emma prompts patient check-ins; Otto triggers reminders; Seer analyzes trends
Mid-Stay Review	Coordinates with team, validates progress	May initiate virtual family meetings	Seer predicts risks; Emma/Eddie support education
Discharge Readiness Review	Leads final physical validation, confirms readiness	May start virtual teach-back, reinforce plans	Emma conducts comprehension checks; Otto ensures documentation; Seer prescribes follow-up
Data Integration	Documents findings, communications with team	Updates shared records, flags issues	Otto automates data flow; Seer synthesizes insights

Where “starts” might occur:

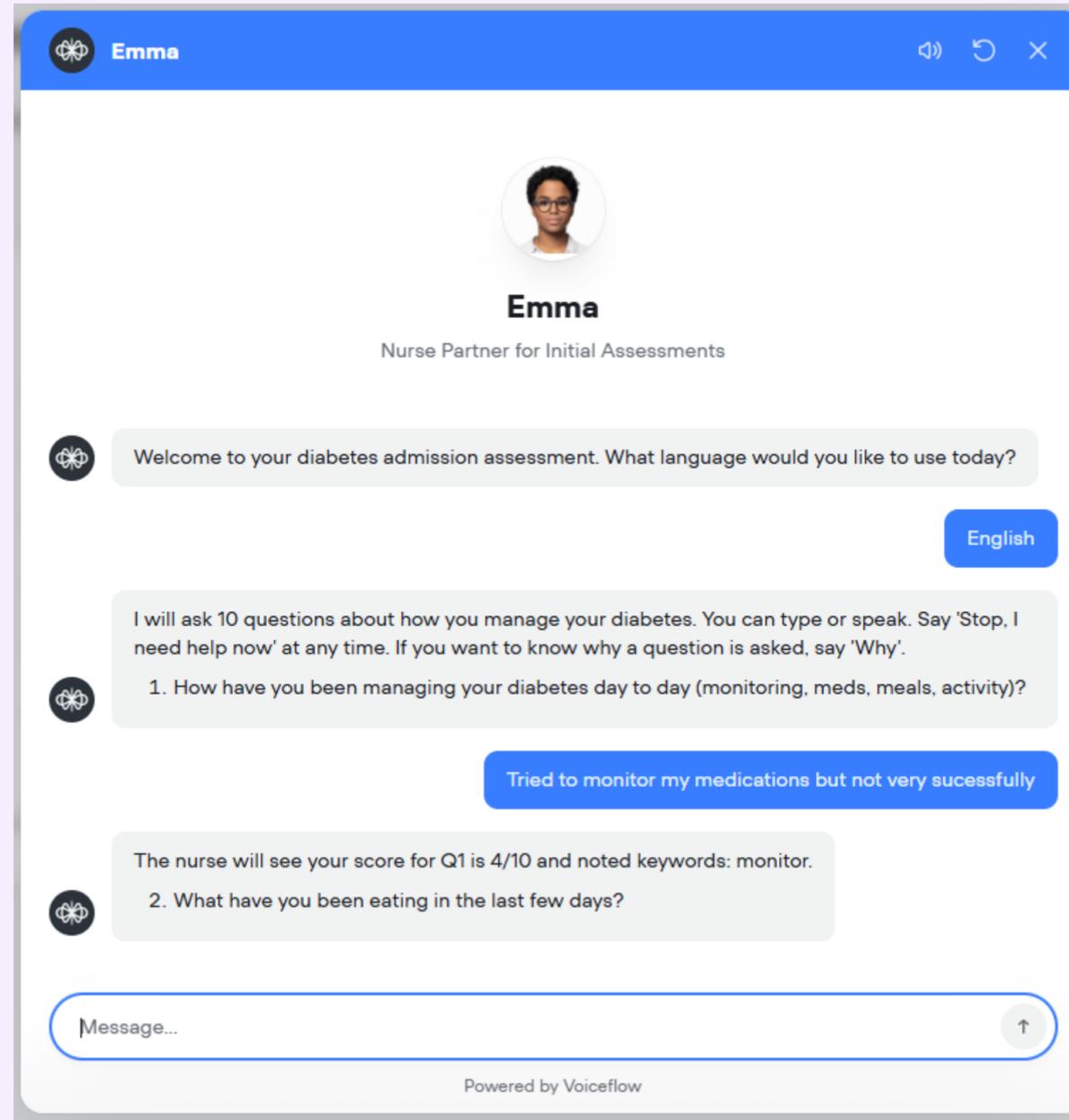
- Physical nurses typically initiate hands-on assessments and validate critical findings.
- Virtual nurses often start psychosocial, educational, or observational assessments, especially when physical presence isn't required.
- Agentic AI agents can initiate digital self-assessments, prompt education, automate reminders, and trigger next steps based on data trends.

MyAction Hub

- Ensure safety and coordination by identifying the responsible party in the care setting. If the care setting nurse is not within proximity and available, do not use an AI agent.
- Show the status of activities on the dashboard.
- Use behavior gamification to assign resolutions to available care team members.
- Reflect the impact of "availability" and patient requests in the behavior modification portion of the dashboard.

Initial Assessment

In practice, the expectations for leveraging advanced nursing models include scenarios where a master's-prepared nurse provides guidance and support to less experienced staff, such as assisting a new nurse graduate during patient assessments or admissions. This collaborative approach ensures that assessments are thorough and align with best practices, while also fostering professional development and confidence among newer team members. The integration of virtual and agentic AI agents enables timely assessments, the rapid collection of assessment data, validation of findings, and reinforcement of clinical reasoning, ultimately enhancing the quality and consistency of patient care. By setting these expectations, organizations aim to create an environment where knowledge sharing, mentorship, and continuous improvement are embedded in the assessment and reassessment process.





Specific Needs Provided by Agents and Their Connection to Nurses

Agentic AI Agents:

- Initiate the process by gathering patient self-report data and comprehension measures (e.g., understanding of diagnosis, medication routines, symptom recognition).
- Identify gaps in knowledge or confidence and flag them for follow-up by nurses or virtual nurses.
- Provide structured, repeatable questions and track changes in patient responses over time, supporting trend analysis and progress visualization.
- Enable multilingual and adaptive interactions, ensuring that assessments are accessible and tailored to the patient's needs.

In-Unit (Physical) Nurses:

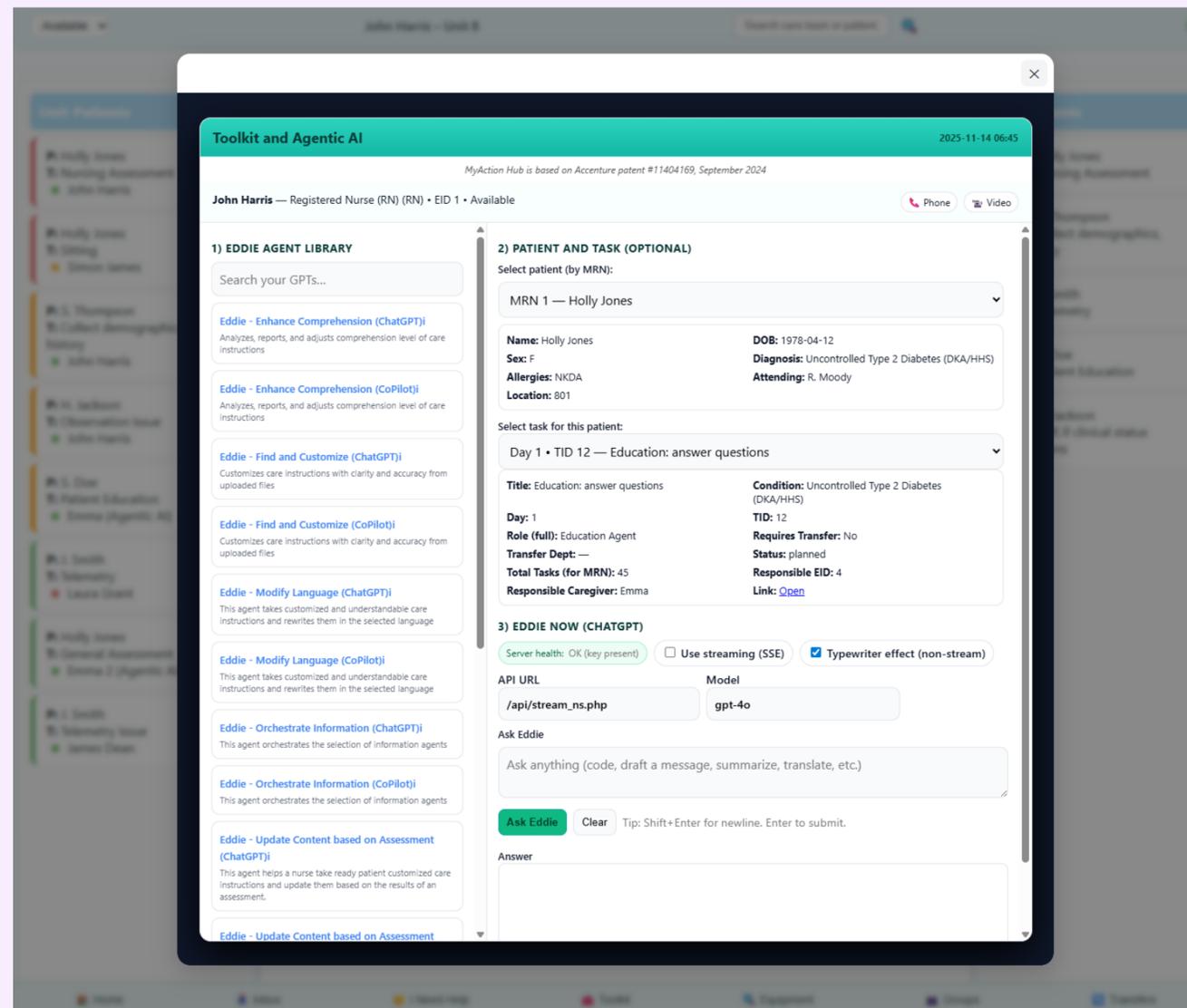
- Receive and validate the data collected by agentic AI, focusing on physical and critical-value assessments (e.g., vital signs, physical exam, acute symptoms).
- Address any urgent findings or discrepancies that the AI agent has surfaced.
- Utilize AI-generated insights to tailor bedside assessments, education, and interventions.

Virtual Nurses:

- Perform observational, psychosocial, and educational assessments, often remotely.
- Reinforce and clarify the information provided by the AI agent to ensure patient and family understanding.
- Engage in virtual rounding, follow-up, and education, especially for needs that do not require physical presence.
- Collaborate with both the AI agent and in-unit nurses to ensure that all aspects of the patient's condition and readiness are addressed.

Co-Intelligence, Customize & Enhance

Nursing First is focused on augmenting and automating tasks with a variety of approaches, including virtual nurses, agentic AI, GenAI, automation, and other resources. While MyAction Hub focused on ensuring safety and coordination among this diverse care team, it also demonstrates co-intelligence. Co-intelligence manifests by providing access to agents to support and improve their efforts to find, customize, and personalize information. Customizing assessment and reassessment content increases the likelihood that a patient's condition will be better understood and managed. Throughout the process, a nurse will have the opportunity to ensure the assessment is customized – patient-specific, including medications, doctor, nurse, etc.- and at the correct comprehension level. Each of the Emma agents performing an assessment/reassessment also possesses a multilingual capability. In some headed agent instances, sign language is supported.





Daily & Mid-Point Assessments

Daily assessments are crucial for ensuring that patient care is dynamic, adaptive, and truly patient-centered throughout the entire hospital stay. The process is intentionally structured to guide patients from a hospital-focused phase, where care is primarily managed by clinical staff and safety is closely monitored, through a blended phase that gradually increases patient participation and self-management, and ultimately toward a home-focused phase, where the patient is prepared for independent care after discharge. By conducting daily assessments, the care team can track and reinforce progress in knowledge, skills, and confidence, identify and address barriers early, and adjust the care plan in real-time. This progression ensures that each patient receives the right support at the right time, building readiness for a safe transition home and reducing the risk of readmission. The integration of physical nurses, virtual nurses, and agentic AI enables a multidimensional approach—combining hands-on care, remote support, and automated progress tracking—to deliver the highest quality outcomes across all stages of the patient journey.

Outcomes of Daily or Mid-Stay Assessments

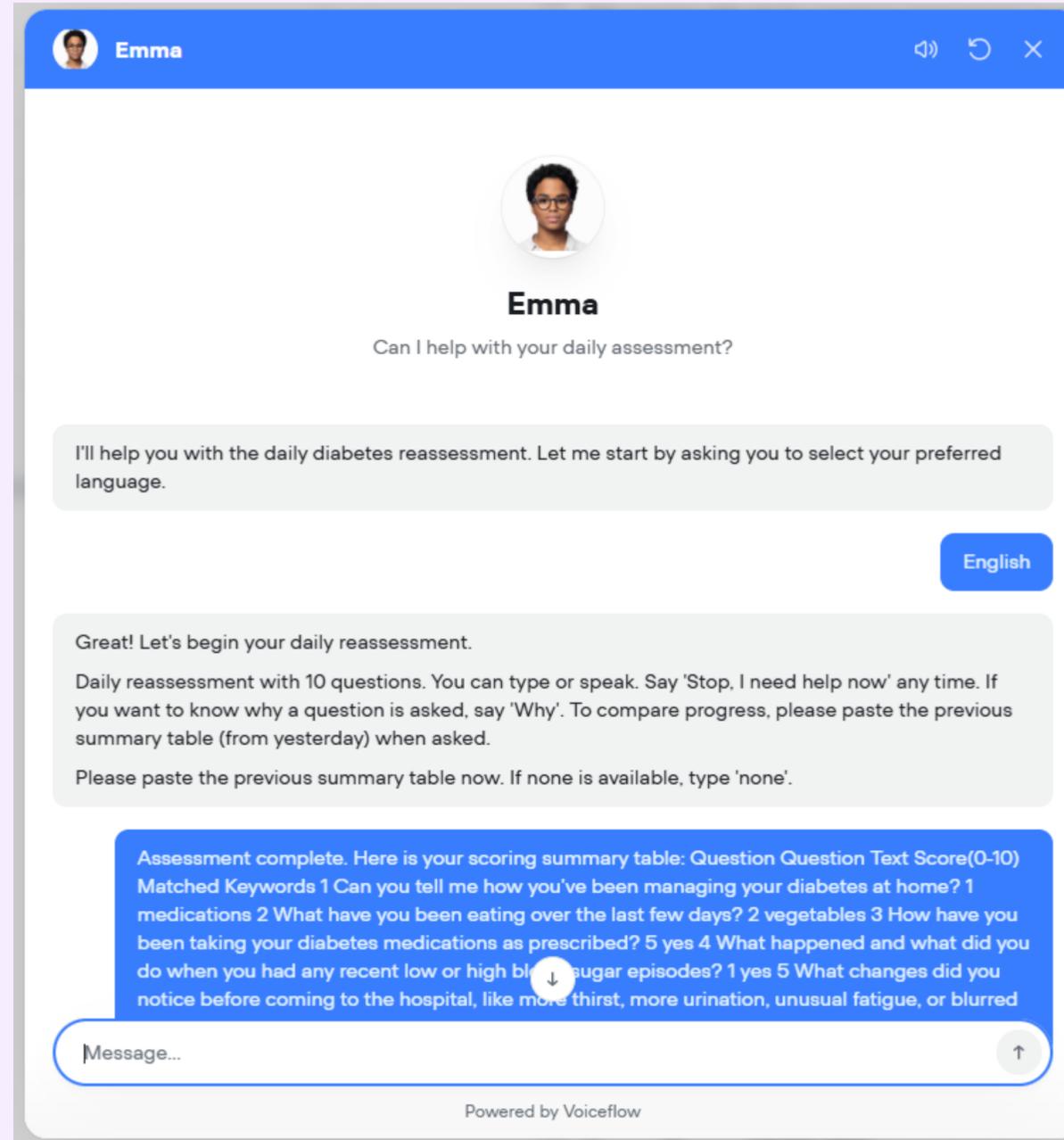
Daily and mid-stay assessments yield several critical outcomes for patient care and organizational effectiveness:

- **Progress Tracking:** They provide a clear, day-by-day picture of the patient's movement from hospital-dependent care toward self-management, highlighting gains in understanding, confidence, and skill.
- **Early Issue Identification:** These assessments surface new or persistent barriers—clinical, psychosocial, or educational—allowing for timely intervention before discharge.
- **Care Plan Adaptation:** The care team can dynamically update goals, interventions, and education based on real-time patient needs and progress.
- **Readiness Validation:** Especially at mid-stay, assessments confirm whether the patient is on track for safe discharge or if additional support is needed.
- **Team Coordination:** Findings are shared across the interdisciplinary team, ensuring everyone is aligned and acting on the latest patient data.

Having an Agent (AI or Virtual) Do Part of the Work.

Integrating agentic AI or virtual agents into the assessment process delivers substantial value:

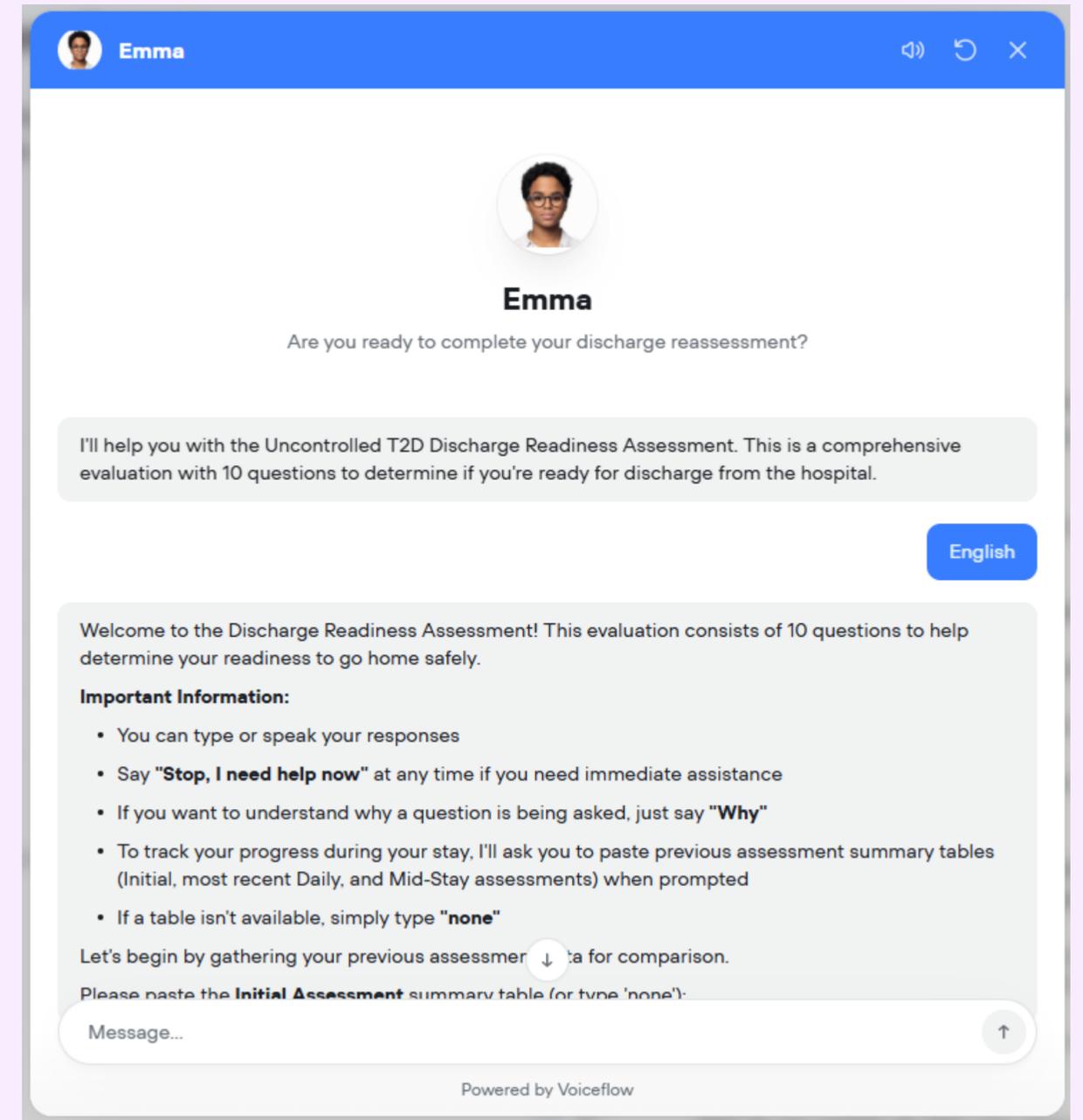
- **Efficiency and Time Savings:** Agents can automate routine data collection, patient self-reports, and comprehension checks, freeing up nurses for higher-value, hands-on care.
- **Consistency and Coverage:** Agents ensure that every assessment domain is addressed systematically, reducing the risk of missed information or variation between shifts.
- **Personalization and Engagement:** AI agents like Emma can interact with patients in multiple languages, adapt questions to comprehension level, and provide tailored education—improving patient engagement and understanding.
- **Continuous Monitoring:** Agents can track trends, flag issues, and prompt timely follow-up, ensuring no decline or risk goes unnoticed between human interactions.
- **Scalability:** By offloading portions of the workflow, organizations can manage higher patient volumes without sacrificing quality or safety.



Discharge Assessments

A discharge assessment is the final, comprehensive evaluation before a patient leaves the hospital, designed to ensure readiness for safe and effective self-care at home. This assessment confirms that the patient and their support system have mastered essential knowledge and skills, understand their medication regimen, can recognize warning signs, and have a clear follow-up plan. The process involves:

- Reviewing the patient's ability to explain and demonstrate their medication schedule and self-management routines (e.g., blood sugar checks, dietary adjustments).
- Validating understanding of symptoms that require medical attention and ensuring the patient knows when and how to seek help.
- Confirming that all necessary equipment (such as glucose meters or medication devices) is available and the patient is confident in its use.
- Ensuring a robust support network is in place, with clear contact information for caregivers and healthcare providers.
- Addressing any remaining barriers or concerns and connecting the patient with community resources as needed.
- Documenting all findings and communicating the discharge plan to the interdisciplinary team.



Why Agentic AI Agents Help:

- Agentic AI agents (such as Emma, Eddie, Otto, and Seer) enhance the discharge assessment by automating comprehension checks, personalizing education, and ensuring no critical steps are missed. For example:
- Emma can interact with patients in their preferred language, deliver tailored education, and confirm understanding through the use of teach-back methods.
- Eddie can rapidly generate and customize discharge instructions, ensuring they are clear and accessible.
- Otto automates reminders, documentation, and follow-up scheduling, reducing administrative burden and minimizing errors.
- Seer analyzes patient data to predict risks, prompting additional interventions or resources if needed.
- These agents provide consistency, reduce the risk of oversight, and free up clinical staff to focus on complex or high-touch needs. They also enable more frequent and adaptive communication with patients and families, supporting a smoother transition from hospital to home.

By integrating agentic AI into the discharge process, organizations can deliver safer, more reliable, and patient-centered transitions, empowering patients for long-term success and reducing the likelihood of readmission.





Automation and Prediction in Assessments

Automation (Otto) Agent

- **Automates Routine Processes:** Otto streamlines and automates repetitive or data-driven tasks within the assessment workflow. This includes gathering data from electronic health records (EHR), integrating information from multiple sources, and triggering next steps based on predefined criteria.
- **Real-Time Data Flow:** Otto ensures that assessment results, alerts, and documentation are automatically routed to the right team members, reducing manual entry and minimizing delays.
- **Triggers Actions:** When certain thresholds or events are detected (e.g., abnormal vital signs, overdue reassessments), Otto can automatically initiate follow-up actions, such as notifying staff, scheduling reassessments, or updating care plans.
- **Supports Consistency and Efficiency:** By handling background processes, Otto allows nurses and other clinicians to focus on direct patient care, ensuring that no critical steps are missed and that workflows remain efficient and standardized.

Predictive/Prescriptive (Seer) Agent

- **Analyzes Trends and Patterns:** Seer uses AI and machine learning to analyze accumulated assessment data, identifying trends in patient status, risk factors, and potential deterioration.
- **Predicts Risks and Needs:** Seer proactively flags patients who may be at higher risk for complications, readmission, or other adverse outcomes, enabling earlier intervention.
- **Prescribes Next Steps:** Based on predictive insights, Seer can recommend targeted interventions, additional assessments, or inclusion in specific care programs, supporting personalized and proactive care.
- **Inform Decision-Making:** Seer's predictive capabilities help the care team prioritize resources, tailor education, and adapt care plans to optimize outcomes and safety.

References

1. “Pulse on the Nation’s Nurses Survey Series: COVID-19 Two-Year Impact Assessment Survey. Younger Nurses Disproportionally Impacted by Pandemic Compared to Older Nurses; Intent to Leave and Staffing Shortages Reach Critical Levels.” American Nurses Foundation. March 1, 2022. [Link](#).
2. “A hospital without nurses can’t save your life. Our healthcare system is at risk as its workforce has been pushed to the breaking point.” American Association of Critical-Care Nurses. September 2021. [Link](#).
3. Workplace Survey. American Nurses Foundation. October 10, 2022. [Link](#).
4. Patient Safety 101: Nurse and Patient Safety. Philips, J., Malliaris, A. P., Bakerjian. D. Agency for Healthcare Research and Quality. April 21, 2021. [Link](#).

About Accenture

Accenture is a leading global professional services company that helps the world’s leading businesses, governments and other organizations build their digital core, optimize their operations, accelerate revenue growth, and enhance citizen services – creating tangible value at speed and scale. We are a talent and innovation led company with 750,000 people serving clients in more than 120 countries. Technology is at the core of change today, and we are one of the world’s leaders in helping drive that change, with strong ecosystem relationships. We combine our strength in technology with unmatched industry experience, functional expertise, and global delivery capability. We are uniquely able to deliver tangible outcomes because of our broad range of services, solutions and assets across Strategy & Consulting, Technology, Operations, Industry X and Accenture Song. These capabilities, together with our culture of shared success and commitment to creating 360° value, enable us to help our clients succeed and build trusted, lasting relationships. We measure our success by the 360° value we create for our clients, each other, our shareholders, partners, and communities. Visit us at [accenture.com](https://www.accenture.com).