

Generative AI in Epic

General Overview



Generative AI technology is rapidly evolving, unlocking potential innovations to enhance patient care, improve cash flow, and help users complete their work more efficiently. We're integrating AI assistance directly into Epic workflows, and this overview outlines our general approach to designing and developing safe and secure AI that spans clinical, financial, and operational workflows.

A trusted colleague

Our goal is to provide clinicians and staff across your organization a trusted colleague that helps them get up to speed and quickly complete their work. Sometimes, this colleague is summarizing information tailored to the user's needs or queuing up information from data in the chart to help complete required documentation. In other situations, it's autonomously managing multiple related actions, assisting with complex decisions, and orchestrating the many integrated tasks that are already happening today in your system. Regardless of the feature, AI in Epic is embedded into existing workflows, easy to deploy, and optimized for your unique community.

Outpatient care

Clinicians preparing for a patient visit can review an AI-generated summary based on notes from recent visits to get up to speed. If they want to dig in further, they can click citations to review the full text of relevant notes. When the patient arrives, ambient voice recognition technology listens to the conversation and drafts a note that the clinician can review, edit, and sign. If the patient sends a follow-up MyChart message after the visit, the system uses AI to show relevant medications, lab results, or other data. It also drafts a response that the clinician can revise and send.

Acute care

When working in the hospital, clinicians coming on shift can quickly get up to speed with insights on recent notes, flowsheet documentation, orders, and other details. During the shift, nurses can use ambient voice recognition technology to complete flowsheet documentation. At the end of the shift, nurses can use generative AI to draft their care plan notes, and physicians can use AI to help summarize the hospital course for their discharge summary.

Other workflows throughout your organization

AI is improving other aspects of your organization as well. Coders can review charge sessions more efficiently when AI surfaces potential diagnosis and procedure codes, with links to supporting documentation in the clinician's note. Clinical Documentation Improvement (CDI) specialists can use AI to find, review, and edit potential queries, helping them focus their attention on accounts with the most value. Managers can get a second opinion when reviewing operational dashboards by checking AI-provided insights based on the metrics displayed. Staff who want to investigate a hunch or dig into data can ask SlicerDicer questions in plain language that AI transforms into a reporting query.

Responsible use

With proper prompt engineering and workflow design, generative AI can provide reliable and useful results, but it is not infallible nor is it a replacement for human judgement. Generated content will occasionally include incorrect statements, and summaries might omit details that the user could consider relevant. Whenever AI assistance appears in a workflow, it is the user's responsibility to review and verify the information before acting. Workflows are designed to require users to open and actively take responsibility for written content and to actively verify discrete documentation before it is filed to the chart. When using AI-generated insights, users can use available citations to gain additional context when reviewing the patient's story.

Hundreds of AI-assisted workflows in development

The AI-assisted workflows described in this section are available and already in use in production. We're continuing to integrate AI into other workflows, from clinical to billing to scheduling and beyond.

To learn more about upcoming features, refer to the [Epic & Generative AI](#) document for a quick list or the [Artificial Intelligence Roadmap](#) for more detailed descriptions.

To help users know when they're interacting with a feature that uses generative AI, we use a consistent user interface design with a special color palette and the AI bloom icon. Workflows include relevant links for more detail on how AI generates information, and users can provide feedback to let your IT staff know how well the AI met the user's needs.

A secure platform

Generative AI-assisted workflows are configured to protect the privacy and security of patient health information. Epic features are designed to work with multiple models. As additional models become available, we evaluate their performance and fit for our use cases.

Privacy and security of information sent to the generative AI models is a top priority, and data exchanged between your environments and Nebula (Epic's cloud platform) are encrypted in transit and at rest. We continually monitor new technologies and industry best practices to provide appropriate security controls to protect the privacy and security of data.

Data elements used

When developing an AI-assisted workflow, we carefully review the data elements sent to the model to provide a response that meets the needs of users while keeping the prompt as concise as possible. The exact data elements included in the prompt depend on the workflow and might change over time as we improve the prompts to provide better responses. For example, to draft a useful response to a patient message that requests medical advice, the AI might need details such as the patient's name, age, upcoming appointments, allergies, medications, and recent test results. To summarize a patient's story prior to a visit, the AI needs the full text of recent clinical notes.

Data retention

Prompts and responses can be stored in Epic's Nebula cloud platform to support troubleshooting processes and gather feedback on AI-assisted workflows. For many workflows, your organization or Epic can review feedback at the organizational level using Radar metrics. Data is retained within Nebula for up to seven days, and you can choose to turn on Cognitive Feature Storage to store data until contract termination or a request is made to delete data.

Cost considerations and pricing options

Generative AI incurs compute and infrastructure costs, so Epic passes along usage-based, metered pricing for these features. We track your consumption of managed AI resources and bill you each month.

Early on in our work on AI features, we offered the Generative AI Jump Start Cloud Infrastructure Package—a fixed monthly fee covering many of Epic's generative AI workflows—so organizations could adopt initial features without assessing and approving costs for each one. Since then, organizations have started scaling these features more broadly, and we are phasing out this option in favor of usage-based pricing to remain fair, sustainable, and closely aligned with the infrastructure resources each organization uses. The Jump Start Cloud Infrastructure Package will be retired effective January 1, 2028. If you're using it now, you can continue using it through the end of calendar year 2027, after which all features will move to usage-based pricing. No new AI capabilities will be added to the package going forward.

In April 2026, we lowered usage-based pricing by 50% to 75% for many features to reflect infrastructure efficiency gains, broader utilization of shared capacity, and engineering optimizations. You can work with us to develop budget estimates based on expected feature adoption, and Epic offers flexible payment plans, such as level monthly payments with a year-end true-up. Talk to your Epic BFF and Technical Coordinator to discuss the full details, terms, and pricing strategy for your organization.

Measurable outcomes

For each AI-assisted workflow, we identify measurable benefits of using AI, share outcomes from organizations using AI in production workflows, and provide you dashboards and other tools to track outcomes at your organization. Observed outcomes and successes for specific workflows are provided on the [Artificial Intelligence Roadmap](#).

Improve patient outcomes

Generative AI has the ability to surface relevant information from the chart, helping clinicians diagnose problems faster and potentially save lives. Using AI to identify actionable follow-ups from imaging studies, The Christ Hospital found

over 4,200 lung nodule mentions that led to the detection of nearly 100 cancers and the initiation of more than 50 cancer treatments.¹

Reduce costs and increase reimbursements

Coders using AI can process routine sessions faster and focus on the complex sessions that require more expertise. Northeast Georgia Health System saw a 46% increase in charts coded per hour by strong coders when using the AI-powered coding assistant. Another organization reported that using AI to draft denial appeal letters allowed them to start collecting audiology denials that they hadn't recovered before.

Increase patient satisfaction

While AI will never replace the human touch of clinician-to-patient communication, many organizations have found positive responses when clinicians use AI to write using patient-friendly language. UC San Diego Health observed that AI-generated responses tended to be longer and noted that these longer messages might reduce unnecessary appointments or calls because patients feel that question was thoroughly answered.² A study conducted by Stanford Health Care showed higher patient satisfaction with AI-generated responses than clinician-authored responses.³

Save time and reduce cognitive load

AI-generated summaries can save clinicians time by helping them get up to speed before seeing a patient, and AI can help them quickly document the care provided. A study done by Universitair Medisch Centrum Groningen found that AI was able to produce an outpatient summary that was comparable to a physician-written summary in terms of completeness, correctness, and trustworthiness.⁴ Nurses at several organizations reported that AI helped them write end of shift care plan notes faster, saving them 1 minute per note. At Sutter Health, 72% of clinicians reported that AI-generated draft responses to patient messages reduced their cognitive load—with reported time savings between 5 minutes and 1 hour.⁵

Responsible design, development, and implementation

To provide AI assistance that meets the needs of users, we follow a robust development process that incorporates appropriate validation techniques based on the use case. We've gained significant experience developing, validating, and supporting AI within Epic workflows, and we can now confidently release many AI-assisted workflows without requiring your organization to complete significant additional validation or manage phased rollouts to limited groups of users.

To support our internal validation processes, we occasionally collect real-world data from organizations in the Epic Community to test prototype prompts and workflows. Before collecting any data, each organization signs a Release Authorization that outlines the specific allowed use of their data for a project or category of projects.

Our focus is on releasing initial AI assistance tools that provide a strong foundation and then iterating and improving the tools over time. For example, the initial release of pre-visit patient summaries used only notes as the basis for the summary, but it continues to incorporate other details from the chart—such as vitals, results, medications, and problems—to provide a more complete picture of the patient. We continually monitor usage and feedback trends for each feature, and Epic staff often reach out to organizations to understand how well the feature is meeting user needs and how it might be improved.

We're further streamlining this iteration using AI agents. Agents combine the power of generative AI's reasoning with a library of integrated actions to autonomously perform tasks and assist with complex decisions. Because many of the individual components of agentic solutions can be reused across different tasks and areas, we'll be able to quickly release features that optimize complex workflows from start to finish to meet user' and patients' needs. For example, an AI agent that drafts text using clinical context can be used in workflows that require sending a message to a referring provider, drafting patient instructions after a visit, or writing a description for a campaign with relatively little optimization needed. This approach also helps ensure that every task an agent can do integrates with Epic's existing functionality in a repeatable and cost-effective way. Using this extensible framework, we also plan to make the library of agents available for organizations to use in creating their own agentic tools.

For most features, Epic manages system prompts through the Nebula cloud infrastructure, allowing us to provide high-performing workflow assistance and quickly release AI improvements with little or no work for your IT staff.

Ethics and governance

We collaborate with organizations in the Epic community to incorporate responsible AI processes into our design, development, and implementation processes, following these principles of Thoughtful AI:

- **Do good.** Build tools with a clear, measurable, positive impact on patient care, healthcare organizations, and communities.
- **Have clear intent.** Be transparent about the use case of each tool. Communicate ethical considerations associated with the use of a tool to our community members.
- **Be accountable.** Tools inform decisions that impact patient care, and our accountability does not end after development. Carefully consider each tool's accuracy and ethical impact during implementation, validation, and ongoing use.
- **Scrutinize bias.** Detect, quantify, and expose bias in the data, predictions, and workflows. Share investigation with subject matter experts, data scientists, and the Epic community.
- **Protect privacy.** Protect patient privacy during all stages of the development and support life cycle.

We operationalize these principles into a risk-based triage process that determines the level of review a given AI use case should undergo. Qualifying projects are evaluated by a multidisciplinary group of reviewers for potential bias in inputs, predictions, target, and workflow integrations, as well as a health equity assessment that examines performance in subgroups.

Understanding Bias and Equity in Generative AI vs. Predictive Analytics

Different artificial intelligence technologies are trained and process data differently and are used to address specific needs in workflows. As organizations have reviewed generative AI use cases and established governance processes, some organizations have attempted to use a single set of criteria and questions for all AI technologies, but each technology requires its own set of considerations to meaningfully assess potential bias.

Predictive models use statistical methods and algorithms to use a complex set of input variables to predict a future event. Each model is individually trained on historical data to create a statistical model that predicts the event with a high enough degree of accuracy to be actionable. For example, models can use various vital signs, medications, lab results, and other patient details to predict the likelihood of a patient developing sepsis or their risk of falling during an inpatient stay. Because of the statistical nature of these models and the fact that they predict something with a ground truth event (for example, the patient developed sepsis, or they didn't), the models can be run over historical data to compare fairness and reliability across various demographic cohorts.

Generative AI uses a large language model to produce new outputs based on existing data. The model is developed and trained on an extremely large volume of data, allowing the model to make connections between concepts that remarkably mimic human language. Because the specific connections the model makes are different each time the model is prompted and there is often no single correct answer, the quality and appropriateness of the generated content is best evaluated across multiple subjective measures—which might use traditional statistical methodology or might require new methods. For example, experts from Epic and UW Health published a methodology for evaluating the quality of AI-generated outpatient summarizations across nine attributes that assess whether the summary was: accurate, cited, comprehensible, organized, succinct, free of stigmatization, synthesized (it reflects an understanding of the patient's status and plan of care), thorough, and useful.⁶

Both AI technologies have the potential to perpetuate or amplify bias, but the mitigation approach differs. In predictive models, mitigation often involves adjusting thresholds and reweighting data within the Epic-developed model. In generative AI, it begins by using models that are trained on diverse datasets and that were developed with a clear commitment to responsible AI.⁷ During workflow development, we then focus on using generative AI for appropriate tasks within the workflow, typically to reduce administrative burden. We carefully engineer the input prompts to pull relevant data from the system to send to the generative AI model and provide clear instruction to the AI model that produces a reliable and highly accurate output to use in the workflow. When showing the generative AI content within the user workflow, the screen is designed to help the user review and validate the AI output with their own expertise before proceeding with the workflow.

AI laws and regulations

The regulatory landscape around the use of AI continues to evolve. It is your organization's responsibility to review and comply with applicable rules and laws, which might affect the specific AI-assisted workflows that you chose to implement, changes to input prompts or other configuration related to the workflow, how you train users, or other requirements.

For organizations caring for patients in the European Union, do not make any changes to any AI-assisted workflow that would cause the workflow to be classified as a high-risk AI system as defined in [Chapter III of The EU Artificial Intelligence Act](#).

Next Steps

If you have not yet begun implementing AI-assisted workflows, reach out to your BFF and Technical Coordinator to discuss your plans.

You can also participate in [Epic-hosted generative AI webinars](#), network on the [Generative AI UserWeb forum](#), and learn from other organizations by reviewing the [Establishing Governance for AI](#) strategy guide.

¹ Bruce, G. (2025). ['Let's make our physicians superhuman': How Christ Hospital uses AI in Epic](#). Becker's Hospital Review.

² Longhurst, C. (2023). [The Future Is Now: The Power of Generative AI in Healthcare](#). EpicShare.

³ Kim, J., et al. (2024). [Perspectives on Artificial Intelligence–Generated Responses to Patient Messages](#). JAMA Netw Open.

⁴ Schoonbeek, R., et al. (2024). [Completeness, Correctness and Conciseness of Physician-Written Versus Large Language Model Generated Patient Summaries Integrated in Electronic Health Records](#). SSRN.

⁵ Yan, S., et al. (2024). [Prompt engineering on leveraging large language models in generating response to InBasket messages](#). JAMIA.

⁶ Croxford, E., et al. (Jun 2025). [Development and Validation of the Provider Documentation Summarization Quality Instrument for Large Language Models](#). Journal of the American Medical Informatics Association, Volume 32, Issue 6.

⁷ Microsoft. (May 2024). [Responsible AI Transparency Report](#).