



Self Assessment

Organizational Responsibilities

General Instructions for the SAFER Self Assessment Guides

The SAFER Guides are designed to help healthcare organizations conduct self-assessments to optimize the safety and safe use of electronic health records (EHRs) in the following areas.

- High Priority Practices
- Organizational Responsibilities
- Contingency Planning
- System Configuration
- System Interfaces
- Patient Identification
- Computerized Provider Order Entry with Decision Support
- Test Results Reporting and Follow-Up
- Clinician Communication

Each of the nine SAFER Guides begins with a Checklist of “recommended practices.” The downloadable SAFER Guides provide fillable circles that can be used to indicate the extent to which each recommended practice has been implemented. Following the Checklist, a Practice Worksheet gives a rationale for and examples of how to implement each recommended practice, as well as likely sources of input into assessment of each practice, and fillable fields to record team members and follow-up action. In addition to the downloadable version, the content of each SAFER Guide, with interactive references and supporting materials, can also be viewed on ONC’s website at www.healthit.gov/SAFERGuide.

The SAFER Guides are based on the best evidence available at this time (2013), including a literature review, expert opinion, and field testing at a wide range of healthcare

organizations, from small ambulatory practices to large health systems. The recommended practices in the SAFER Guides are intended to be useful for all EHR users. However, every organization faces unique circumstances and will implement a particular practice differently. As a result, some of the specific examples in the SAFER Guides for recommended practices may not be applicable to every organization.

The SAFER Guides are designed in part to help deal with safety concerns created by the continuously changing landscape that healthcare organizations face. Therefore, changes in technology, clinical practice standards, regulations and policy, and associated industry practices should be taken into account when using the SAFER Guides. Periodic self-assessments using the SAFER Guides may also help organizations identify areas in which it is particularly important to address the implications of change for the safety and safe use of EHRs.

In some instances, Meaningful Use and/or HIPAA Security Rule requirements are identified in connection with recommended practices. The SAFER Guides are not intended to be used for legal compliance purposes, and implementation of a recommended practice does not guarantee compliance with Meaningful Use, HIPAA, or other laws. The SAFER Guides are for informational purposes only and are not intended to be an exhaustive or definitive source. They do not constitute legal advice or offer recommendations based on a healthcare provider’s specific circumstances. Users of the SAFER Guides are encouraged to consult with their own legal counsel with regard to compliance with Meaningful Use, HIPAA, and other laws. For more information on Meaningful Use, please visit the Centers for Medicare & Medicaid Services website at www.cms.gov. For more information on HIPAA, please visit the HHS Office for Civil Rights website at www.hhs.gov/ocr.



Self Assessment

Organizational Responsibilities

Introduction

The *Organizational Responsibilities SAFER Guide* identifies individual and organizational responsibilities (activities, processes, and tasks) intended to optimize the safety and safe use of EHRs. A safe EHR implementation is critically dependent on the people involved. This guide, compared to all of the others, focuses chiefly on human behavior and relationships, and it is organized differently than the other guides—in particular, it is not organized under the same Phases and Principles used for the other guides but is instead organized around principles that apply to the people who have responsibility for patient safety in EHR-enabled healthcare organizations.

Safe EHR implementations require attention to social as well as technical matters. This guide is designed to help safely manage the individual and organizational responsibilities in a complex “sociotechnical” healthcare organization. Responsibilities can be shifted, forgotten, or newly created when EHRs are implemented. Careful attention to the details of those responsibilities is a critical factor in system safety and in realizing the potential benefits of EHRs.

Completing the self-assessment in the *Organizational Responsibilities SAFER Guide* requires the engagement of a wide variety of people within the organization. Because this guide is designed to help organizations prioritize EHR-related safety concerns, clinician leadership in the organization should be engaged in assessing whether and how any particular recommended practice affects the organization’s ability to deliver safe, high quality care. The collaboration between clinicians and staff members in completing the self-assessment in this guide will enable an accurate snapshot of the organization’s EHR responsibility status (in terms of safety), and even more importantly should lead to a consensus about the organization’s future path to optimize EHR-related safety and quality: setting priorities among the recommended practices not yet addressed, ensuring a plan is in place to maintain recommended practices already in place, dedicating the required resources to make necessary improvements, and working together to mitigate the highest priority responsibility-related safety risks introduced by the EHR.



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This guide was developed under the contract Unintended Consequences of Health IT and Health Information Exchange, Task Order HHSP23337003T/HHSP23320095655WC.

The ONC composite mark is a mark of the U.S. Department of Health and Human Services. The contents of the publication or project are solely the responsibility of the authors and do not necessarily represent the official views of the U.S. Department of Health and Human Services, Office of the National Coordinator for Health Information Technology.



The *Checklist* is structured as a quick way to enter and print your self-assessment. The checklist is based on a core set of underlying principles and specific recommended practices. Your selection on the checklist will automatically update the related section of the corresponding recommended practice worksheet.

The *Recommended Practice(s)* for the topic appear below the associated *Principle*.

Below each *Recommended Practice* is a link to the *Recommended Practice Worksheet* in this PDF.

The *Worksheet* provides guidance on implementing the *Practice*.

The *Principles* associated with EHR and achieving patient safety appear at the top of the section.

Principle: Defined decision-making activities ensure EHR safety

Recommended Practices		Implementation Status		
		Fully in all areas	Partially in some areas	Not implemented
1	The highest-level decision makers (e.g. boards of directors or owners of physician practices) are committed to promoting a culture of safety that incorporates the safety and safe use of EHRs. Worksheet 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> reset
2	An effective decision-making structure exists for managing and optimizing the safety and safe use of the EHR. Worksheet 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> reset
3	Staff members are assigned responsibility for the management of clinical decision support (CDS) content. Worksheet 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> reset
4	Practicing clinicians are involved in all levels of EHR safety-related decision making that impact clinical use. Worksheet 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> reset
5	Clear clinician oversight is maintained when clinicians delegate aspects of order entry, medication reconciliation, or documentation tasks. Worksheet 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> reset

Principle: Activities to optimize EHR quality and data quality ensure EHR safety.

Recommended Practices		Implementation Status		
		Fully in all areas	Partially in some areas	Not implemented
6	Staff members are assigned to regularly monitor EHR hardware, software, and network/Internet service provider (ISP) performance and safety. Worksheet 6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> reset
7	Staff members are assigned to regularly test for and promptly correct problems with EHR hardware, software, and network/ISP performance and safety. Worksheet 7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> reset
8	Staff members are assigned responsibility for selecting, testing, monitoring, and maintaining CDS performance and safety. Worksheet 8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> reset

Select the level of *Implementation* achieved by your organization for each *Recommended Practice*.

Your *Implementation Status* will be reflected on the *Recommended Practice Worksheet* in this PDF.



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Principle: Defined decision-making activities ensure EHR safety

Recommended Practices

Implementation Status

	Fully in all areas	Partially in some areas	Not implemented	
<p>1 The highest-level decision makers (e.g., boards of directors or owners of physician practices) are committed to promoting a culture of safety that incorporates the safety and safe use of EHRs. Worksheet 1</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
<p>2 An effective decision-making structure exists for managing and optimizing the safety and safe use of the EHR. Worksheet 2</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
<p>3 Staff members are assigned responsibility for the management of clinical decision support (CDS) content. Worksheet 3</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
<p>4 Practicing clinicians are involved in all levels of EHR safety-related decision making that impact clinical use. Worksheet 4</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
<p>5 Clear clinician oversight is maintained when clinicians delegate aspects of order entry, medication reconciliation, or documentation tasks. Worksheet 5</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset

Principle: Activities to optimize EHR quality and data quality ensure EHR safety.

Recommended Practices

Implementation Status

	Fully in all areas	Partially in some areas	Not implemented	
<p>6 Staff members are assigned to regularly monitor EHR hardware, software, and network/Internet service provider (ISP) performance and safety. Worksheet 6</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
<p>7 Staff members are assigned to regularly test for and promptly correct problems with EHR hardware, software, and network/ISP performance and safety. Worksheet 7</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
<p>8 Staff members are assigned responsibility for selecting, testing, monitoring, and maintaining CDS performance and safety. Worksheet 8</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset



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Principle: Activities to ensure safe use of the EHR to prevent EHR safety hazards.

Recommended Practices

Implementation Status

	Fully in all areas	Partially in some areas	Not implemented	
9 EHR training and support are sufficient for the needs of EHR users and readily available. Worksheet 9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
10 EHR training and support are high quality, provided by qualified trainers, and appropriately tailored to specific types of users' needs. Worksheet 10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
11 EHR training and support are assessed regularly to optimize complete and safe use of the EHR. Worksheet 11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
12 Workflow analysis to map how work is actually done is conducted regularly. Worksheet 12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
13 Clinical staff is assigned responsibility for ensuring that CDS content, such as alerts and protocols, supports effective clinical workflow in all practice settings. Worksheet 13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
14 Organizational policy facilitates reporting of EHR-related hazards and errors and ensures that reports are promptly investigated and addressed. Worksheet 14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
15 Records of reported and addressed EHR-related hazards and errors are maintained. Worksheet 15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset

Principle: Activities to ensure the availability of information in the EHR to prevent EHR safety hazards.

Recommended Practices

Implementation Status

	Fully in all areas	Partially in some areas	Not implemented	
16 Staff members are assigned responsibility for the maintenance of the EHR-related hardware, software, CDS, and network/ISP performance. Worksheet 16	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
17 Staff members regularly monitor maintenance of the EHR-related hardware, software, CDS, and network/ISP performance and safety. Worksheet 17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset



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Principle: Activities to ensure the availability of information in the EHR to prevent EHR safety hazards.

Recommended Practices

Implementation Status

- 18** Organizational procedures ensure that EHR users are able to get timely help when there are EHR-related hardware, software, CDS, or network/ISP problems.
[Worksheet 18](#)

Fully in all areas	Partially in some areas	Not implemented
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

reset

Principle: Activities to help the organization learn from EHR safety efforts to prevent EHR safety hazards.

Recommended Practices

Implementation Status

- 19** Communication mechanisms ensure that EHR users learn of EHR changes promptly, and users are able to give feedback on related safety concerns.
[Worksheet 19](#)

Fully in all areas	Partially in some areas	Not implemented
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

reset

- 20** Staff members with job responsibilities for EHR safety are encouraged to participate in relevant professional activities and communicate with others in similar positions.
[Worksheet 20](#)

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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- 21** Self-assessments, including use of the SAFER Guides, are conducted routinely by a team, and the risks of foregoing or delaying any recommended practices are assessed.
[Worksheet 21](#)

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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A multidisciplinary team should complete this self-assessment and evaluate potential health IT-related patient safety risks addressed by this specific SAFER Guide within the context of your particular healthcare organization.

This Team Worksheet is intended to help organizations document the names and roles of the self-assessment team, as well as individual team members' activities. Typically team members will be drawn from a number of different areas within your organization, and in some instances, from external sources. The suggested Sources of Input section in each Recommended Practice Worksheet identifies the types of expertise or services to consider engaging. It may be particularly useful to engage specific clinician and other leaders with accountability for safety practices identified in this guide.

The Worksheet includes fillable boxes that allow you to document relevant information. The Assessment Team Leader box allows documentation of the person or persons responsible for ensuring

that the self-assessment is completed. The section labeled Assessment Team Members enables you to record the names of individuals, departments, or other organizations that contributed to the self-assessment. The date that the self-assessment is completed can be recorded in the Assessment Completion Date section and can also serve as a reminder for periodic reassessments. The section labeled Assessment Team Notes is intended to be used, as needed, to record important considerations or conclusions arrived at through the assessment process. This section can also be used to track important factors such as pending software updates, vacant key leadership positions, resource needs, and challenges and barriers to completing the self-assessment or implementing the Recommended Practices in this SAFER Guide.

Assessment Team Leader

Assessment Completion Date

Assessment Team Members

Assessment Team Notes

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Each *Worksheet* provides guidance on implementing a specific *Recommended Practice*, and allows you to enter and print information about your self-assessment.

The *Responsibility* section lists ideal examples and possibilities. Organizations such as independent ambulatory clinics are considered small. Groups of clinics or hospitals with centralized Health IT and informatics services are considered large.

The *Rationale* section provides guidance about “why” the safety activities are needed.

Enter any notes about your self-assessment.

Enter any follow-up activities required.

Enter the name of the person responsible for the follow-up activities.

Recommended Practice

6 Staff members are assigned to regularly monitor EHR hardware, software, and network/Internet service provider (ISP) performance and safety. [HIPAA](#)
[Checklist](#)

Principle: Activities to optimize EHR quality and data quality ensure EHR safety.

Rationale for Practice or Risk Assessment

- Problems can be caught before harm is done.
- Providers and others can learn from their mistakes.
- The impact of changes to the EHR or clinical decision support (CDS) is transparent.

Implementation Status

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Responsibility

Large organization:
Safety officer, informatics-type department, Health IT

Small organization:
Office management, Health IT staff/contractor, providers

Suggested Sources of Input

Leadership team	Multi-professional team
Health informatics team	Health IT support staff
Clinicians, support staff, and/or clinical administration	

Examples of Potentially Useful Practices/Scenarios

- A plan outlining responsibility for EHR safety monitoring is in place.¹⁴⁻¹⁶
- Errors involving system-to-system interfaces are routinely monitored.
- Providers and others (including leadership in large organizations) are encouraged to use tools to monitor EHR safety and care quality.
- A plan exists for learning from incidents to improve EHR safety.
- The review and communication of lab results are monitored.
- The test results reporting loop is closed.
- Selected post-implementation care outcomes are monitored.
- Alert and reminder responses are monitored.
- Alert and reminder specificity and sensitivity are appropriately managed.

Click on a link below to view the topic online:

> [References](#) > [HIPAA](#)

The *Suggested Sources of Input* section indicates categories of personnel who can provide information to help evaluate your level of implementation.

The *Examples* section lists potentially useful practices or scenarios to inform your assessment and implementation of the specific *Recommended Practice*.

Each *Worksheet* provides links to additional information available on the website.



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Recommended Practice

Implementation Status

1 The highest-level decision makers (e.g., boards of directors or owners of physician practices) are committed to promoting a culture of safety that incorporates the safety and safe use of EHRs.

[Checklist](#)

Principle: Defined decision-making activities ensure EHR safety

Rationale for Practice or Risk Assessment

- Leadership can provide motivation for all staff to pay attention to EHR safety.
- Those in authority can provide resources for ensuring EHR safety.
- Without leadership involvement, EHR safety efforts will likely fail.

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Responsibility

Large organization:
Board of Directors, parent organization, CEO
Small organization:
Owners

Suggested Sources of Input

Leadership team
Multi-professional team

Examples of Potentially Useful Practices/Scenarios

- Highest-level decision makers recognize that EHR safety is integral to patient safety. They ensure that EHR safety is integrated into organizational policies and procedures and risk management practices.²⁵
- Highest-level decision makers ensure that adequate staffing and resources exist so that safety issues associated with adoption and use of EHRs can be addressed.
- Highest-level decision makers review the results of assessments of EHR safety, such as those from SAFER Guide use.
- Highest-level decision makers identify EHR-related patient safety goals, assess whether those goals are being reached, and address any shortcomings.

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Recommended Practice

Implementation Status

2 An effective decision-making structure exists for managing and optimizing the safety and safe use of the EHR.

[Checklist](#)

Principle: Defined decision-making activities ensure EHR safety

Rationale for Practice or Risk Assessment

- Clarifies responsibility.
- Maximizes involvement of disciplines.
- Ensures that important EHR safety issues are addressed.

Responsibility

Large organization:

Board of directors

Small organization:

Owners

Suggested Sources of Input

Leadership team

Multi-professional team

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Examples of Potentially Useful Practices/Scenarios

- For larger organizations, all of the following are represented in decision making about EHR safety: clinicians, administrators, patients, Health IT/informatics, board of directors and CEOs, and quality and legal staff.
- For smaller ambulatory practices and small hospitals, both clinical and administrative staff members are represented in decision making about EHR safety, with assistance from outside experts.
- An EHR safety officer or someone assigned that responsibility part time in a small organization plays a key role in assuring safety.
- EHR safety is appropriately included in job performance appraisals.
- For a larger organization, an EHR safety oversight committee is in place ^{1,2} or these functions are assumed by an EHR or Safety and Quality oversight committee.

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Recommended Practice

Implementation Status

3 Staff members are assigned responsibility for the management of clinical decision support (CDS) content.
[Checklist](#)

Principle: Defined decision-making activities ensure EHR safety

Rationale for Practice or Risk Assessment

- Facilitates decision making about clinical decision support and other content.
- Provides accountability for decisions.
- Avoids hazardous, wrong, or outdated content in EHR.

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Responsibility

Large organization:
Informatics-type department
Small organization:
Providers

Suggested Sources of Input

Health informatics team	Multi-professional team
Clinicians, support staff, and/or clinical administration	EHR developer Pharmacy

Examples of Potentially Useful Practices/Scenarios

- A decision-making structure exists for making decisions about clinical content.³⁻⁶
- Responsibility for management of content, from selection to maintenance, is clear.
- Committees or other collaboration mechanisms are in place to approve order sets and documentation templates.
- There is clear responsibility for the review of a new decision support that becomes available from developers and other sources (e.g., professional organizations).
- Developers provide clear documentation of decision support content and the evidence-base to support that content.
- Developers routinely review and update decision support content they provide.
- Personnel are available either internally or externally to ensure that decision support is tailored to the workflows of professional roles and specialties.⁷⁻¹¹

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Recommended Practice

Implementation Status

4 Practicing clinicians are involved in all levels of EHR safety-related decision making that impact clinical use.

[Checklist](#)

Principle: Defined decision-making activities ensure EHR safety

Rationale for Practice or Risk Assessment

- Facilitates wise decision making about clinically relevant issues.
- Assures focus on patient care.
- Increases acceptance of decisions.

Responsibility

Large organization:

Administration

Small organization:

Providers

Suggested Sources of Input

Clinicians,
support staff, and/or
clinical administration

Multi-professional team

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

Examples of Potentially Useful Practices/Scenarios

- Clinicians (including physicians, nurses, pharmacists, and others) are included on the EHR safety oversight committee of a large organization.
- Clinicians are involved in decision making about all proposed changes to the EHR.

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Recommended Practice

Implementation Status

5 Clear clinician oversight is maintained when clinicians delegate aspects of order entry, medication reconciliation, or documentation tasks.

[Checklist](#)

Principle: Defined decision-making activities ensure EHR safety

Rationale for Practice or Risk Assessment

- Assures that the safety risks of assigning these tasks to medical assistants or scribes are carefully weighed.
- Assures that responsible providers take the time to review delegated work.

Responsibility

Large organization:
Hospital departments

Small organization:
Providers

Suggested Sources of Input

Clinicians, support staff, and/or clinical administration

Multi-professional team

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Examples of Potentially Useful Practices/Scenarios

- For teaching hospitals and clinics, attending physicians are diligent about reviewing the work of trainees.^{12,13}
- In community non-teaching settings, responsible providers oversee and are diligent about reviewing the delegated work.

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Recommended Practice

Implementation Status

6 Staff members are assigned to regularly monitor EHR hardware, software, and network/Internet service provider (ISP) performance and safety. [HIPAA Checklist](#)

Principle: Activities to optimize EHR quality and data quality ensure EHR safety.

Rationale for Practice or Risk Assessment

- Problems can be caught before harm is done.
- Providers and others can learn from their mistakes.
- The impact of changes to the EHR or clinical decision support (CDS) is transparent.

Responsibility

Large organization:
Safety officer, informatics-type department, Health IT
Small organization:
Office management, Health IT staff/contractor, providers

Suggested Sources of Input

Leadership team	Multi-professional team
Health informatics team	Health IT support staff
Clinicians, support staff, and/or clinical administration	

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Examples of Potentially Useful Practices/Scenarios

- A plan outlining responsibility for EHR safety monitoring is in place. [14-16](#)
- Errors involving system-to-system interfaces are routinely monitored.
- Providers and others (including leadership in large organizations) are encouraged to use tools to monitor EHR safety and care quality.
- A plan exists for learning from incidents to improve EHR safety.
- The review and communication of lab results are monitored.
- The test results reporting loop is closed.
- Selected post-implementation care outcomes are monitored.
- Alert and reminder responses are monitored.
- Alert and reminder specificity and sensitivity are appropriately managed.

Click on a link below to view the topic online:

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Recommended Practice

Implementation Status

7 Staff members are assigned to regularly test for and promptly correct problems with EHR hardware, software, and network/ISP performance and safety. [HIPAA](#)

[Checklist](#)

Principle: Activities to optimize EHR quality and data quality ensure EHR safety.

Rationale for Practice or Risk Assessment

- Customization of either the EHR or content must be skillfully done or upgrades to the EHR can produce unique hazards.
- Inadequate or unprepared staff members are more likely to permit problems to remain unaddressed.

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Responsibility

Large organization:

Safety officer, informatics-type department, Health IT

Small organization:

Office management, Health IT staff/contractor, providers

Suggested Sources of Input

Leadership team	Health IT support staff
Health informatics team	EHR developer
Clinicians, support staff, and/or clinical administration	

Examples of Potentially Useful Practices/Scenarios

- The organization has adequate numbers of trained staff members available either on site or elsewhere to modify software.
- Adequate technical staff members are available to fix hardware problems during operating hours.
- Staff members are available to catch and promptly correct errors in areas such as registration, order entry, or test results communication.
- When errors occur, a multidisciplinary review and discussion takes place.
- The organization has a rigorous process in place for testing new software.¹⁷
- The organization has a rigorous process in place for testing new hardware.
- Workflow analysis that shows the way work is actually done is conducted prior to any system upgrade.
- Risk assessments are conducted prior to go-live.
- The potential impact of any EHR upgrade is carefully assessed.

Click on a link below to view the topic online:

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Recommended Practice

Implementation Status

8 Staff members are assigned responsibility for selecting, testing, monitoring, and maintaining CDS performance and safety. [HIPAA](#)
[Checklist](#)

Principle: Activities to optimize EHR quality and data quality ensure EHR safety.

Rationale for Practice or Risk Assessment

- Untested CDS can lead to patient care errors.
- Lessons from testing can prevent implementation of error prone CDS.

Responsibility

Large organization:
Safety officer, informatics-type department, Health IT
Small organization:
Office management, Health IT staff/contractor, providers

Suggested Sources of Input

Leadership team	Health IT support staff
Health informatics team	EHR developer
Clinicians, support staff, and/or clinical administration	

Examples of Potentially Useful Practices/Scenarios

- The organization has a rigorous process in place for testing new CDS.¹⁷
- Risk assessments are conducted prior to go-live with new CDS.
- Clinical content is developed or modified by a multidisciplinary group including clinical specialists when appropriate.

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Recommended Practice

Implementation Status

9 EHR training and support are sufficient for the needs of EHR users and readily available.

[Checklist](#)

Principle: Activities to ensure safe use of the EHR to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- If the EHR is not used or is poorly used, patient harm can result.
- Training and support staff must be well trained to maximize effectiveness.

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Responsibility

Large organization:
Informatics-type department, Health IT, developer
Small organization:
Office management, developer

Suggested Sources of Input

Leadership team	Health IT support staff
Health informatics team	EHR developer
Clinicians, support staff, and/or clinical administration	

Examples of Potentially Useful Practices/Scenarios

- All users are trained prior to their using the system, supported while they are first using the system, and trained again before each change to the system.¹⁴
- Different modalities for training are offered to accommodate user schedules and learning styles.
- EHR safety is covered in EHR training.
- Users are trained on how to proceed during system unavailability (downtimes).
- Providers must demonstrate competency in using the system before using order entry.
- In larger organizations, Health IT and informatics staff receive training from the developer and are certified as appropriate.
- A process is in place so that users can get help immediately whenever and wherever they need it.⁸

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Recommended Practice

Implementation Status

10 EHR training and support are high quality, provided by qualified trainers, and appropriately tailored to specific types of users' needs.

[Checklist](#)

Principle: Activities to ensure safe use of the EHR to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- Suboptimal training and support lead to wasted time for users.
- Lack of diligence can cause EHR safety hazards.

Responsibility

Large organization:
Informatics-type department, Health IT, developer

Small organization:
Office management, developer

Suggested Sources of Input

Leadership team	Health IT support staff
Health informatics team	EHR developer
Clinicians, support staff, and/or clinical administration	

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

Examples of Potentially Useful Practices/Scenarios

- Whether done by dedicated internal trainers or those hired from outside, pre-implementation training prepares users for go-live.
- Training and support are provided by individuals who can fill the gap between the clinical and Health IT languages and understand clinical workflow.⁷
- Support is available on-site at least during the first week after EHR go-live.
- A protocol exists so that all users know how to get technical, software, and connectivity support.
- Initial training includes running through scenarios that simulate the tasks users will need to accomplish.
- Training stresses the need to be diligent about entering accurate data.^{14,18-21}
- User skills are monitored and upgraded when needed.

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Recommended Practice

Implementation Status

11 EHR training and support are assessed regularly to optimize complete and safe use of the EHR.
[Checklist](#)

Principle: Activities to ensure safe use of the EHR to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- Since training and support are ongoing and expensive, continuous improvement is important.

Responsibility

Large organization:
Informatics-type department, Health IT, developer
Small organization:
Office management, developer

Suggested Sources of Input

Leadership team	Health IT support staff
Health informatics team	EHR developer
Clinicians, support staff, and/or clinical administration	

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

Examples of Potentially Useful Practices/Scenarios

- A training plan outlines regular ongoing training opportunities so that users can optimize their use of the EHR.
- Training and support must be tailored to the needs of EHR users.
- A plan exists for ongoing assessment of training and support.
- Feedback about training and support is responded to effectively.

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Recommended Practice

Implementation Status

12 Workflow analysis to map how work is actually done is conducted regularly.

[Checklist](#)

Principle: Activities to ensure safe use of the EHR to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- Inattention to how the EHR fits workflow can result in wasted time and money.
- Workarounds that result from workflow-related problems can lead to errors that affect patients.

Responsibility

Large organization:
Informatics-type department, Health IT, developer
Small organization:
Office management, and developer or consultant

Suggested Sources of Input

Leadership team	EHR developer
Health informatics team	Multi-professional team

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

Examples of Potentially Useful Practices/Scenarios

- Workflow analysis is conducted prior to implementation of the EHR.²²
- Workflow analysis is conducted prior to any major change to the EHR system.
- An effective change management approach guides any needed workflow changes based on the workflow analysis.

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Recommended Practice

Implementation Status

13 Clinical staff is assigned responsibility for ensuring that CDS content, such as alerts and protocols, supports effective clinical workflow in all practice settings.

[Checklist](#)

Principle: Activities to ensure safe use of the EHR to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- Without customization, generic CDS that is not useful to the recipient's role or specialty may create hazards.

Responsibility

Large organization:
Informatics-type department

Small organization:
Providers

Suggested Sources of Input

Clinicians,
support staff, and/or
clinical administration

Health IT support staff
Multi-professional team
Pharmacy

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Examples of Potentially Useful Practices/Scenarios

- A process exists for the review and modification of any locally developed, commercial, or freely available CDS so that it is appropriate for a particular setting.²³
- A clinical rules committee has a defined process for evaluating and overseeing the testing and monitoring of the CDS.
- The unique needs of the pediatric population are taken into account when reviewing and modifying CDS.²⁴

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Recommended Practice

Implementation Status

14 Organizational policy facilitates reporting of EHR-related hazards and errors and ensures that reports are promptly investigated and addressed. [HIPAA](#)

[Checklist](#)

Principle: Activities to ensure safe use of the EHR to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- A culture of safety relies upon reporting and follow up. If hazards exist but remain unreported they could cause harm.

Responsibility

Large organization:

Safety officer and all those involved in safety initiatives, informatics-type department responsibility

Small organization:

Office management, providers

Suggested Sources of Input

Leadership team

Health informatics team

Clinicians, support staff, and/or clinical administration

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

Examples of Potentially Useful Practices/Scenarios

- The mechanism for reporting EHR-related safety hazards internally is clear to all users.
- Those who manage EHR and patient safety initiatives for the organization have a clear protocol for addressing reported problems and for reporting problems externally to the developer and/or a patient safety organization when appropriate. [17,20](#)

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Recommended Practice

Implementation Status

15 Records of reported and addressed EHR-related hazards and errors are maintained. [HIPAA](#)

[Checklist](#)

Principle: Activities to ensure safe use of the EHR to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- If records of these hazards are not maintained, the same problems might arise at a future time without access to prior solutions and mitigation strategies.
- There could be liability risks if the history is undocumented.
- If users cannot learn the disposition of their reports, they may not bother submitting future reports.

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Responsibility

Large organization:
Safety officer, Informatics-type department

Small organization:
Office management, providers

Suggested Sources of Input

Leadership team	Health informatics team
Clinicians, support staff, and/or clinical administration	

Examples of Potentially Useful Practices/Scenarios

- Larger organizations often use help desk software to keep track of internal reports and disposition. The user who reported the issue is notified of the outcome when appropriate.
- Smaller organizations develop databases of reports and assign responsibility for maintenance of the database, usually to a Health IT person.

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Recommended Practice

Implementation Status

16 Staff members are assigned responsibility for the maintenance of the EHR-related hardware, software, CDS, and network/ISP performance. [HIPAA](#)
[Checklist](#)

Principle: Activities to ensure the availability of information in the EHR to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- Without maintenance, components of the EHR may impede use.
- Inadequate maintenance could cause the EHR to be unavailable, creating safety risks.

Responsibility

Large organization:
Health IT HI (for CDS)

Small organization:
Health IT contractor or internal Health IT-oriented person

Suggested Sources of Input

Health IT support staff

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Examples of Potentially Useful Practices/Scenarios

- Regular maintenance of hardware, software, CDS, and the network/ISP is organized and funded.

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Recommended Practice

Implementation Status

17 Staff members regularly monitor maintenance of the EHR-related hardware, software, CDS, and network/ISP performance and safety. [HIPAA](#)
[Checklist](#)

Principle: Activities to ensure the availability of information in the EHR to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- Inadequate maintenance may result in increased and unplanned downtime.
- Inadequate maintenance may cause the EHR to be unavailable, causing safety risks.

Responsibility

Large organization:
Health IT, informatics-type department
Small organization:
Office management

Suggested Sources of Input

Leadership team	Health IT support staff
Clinicians, support staff, and/or clinical administration	Health informatics team

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

Examples of Potentially Useful Practices/Scenarios

- When maintenance for these components is provided from outside the organization, oversight is conducted by an internal staff member to assure the competence and performance of the contractors.
- When maintenance is provided internally, regular schedules exist for it.
- Assessments are conducted regularly to ensure adequate maintenance.

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Recommended Practice

Implementation Status

18 Organizational procedures ensure that EHR users are able to get timely help when there are EHR-related hardware, software, CDS, or network/ISP problems. [HIPAA](#)

[Checklist](#)

Principle: Activities to ensure the availability of information in the EHR to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- Without knowing how to get help, users will develop workarounds, which can be dangerous.
- Time can be wasted when users and staff members have difficulty finding help.

Responsibility

Large organization:
Health IT, informatics-type department

Small organization:
Office management

Suggested Sources of Input

Leadership team	Health IT support staff
Clinicians, support staff, and/or clinical administration	Health informatics team

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

Examples of Potentially Useful Practices/Scenarios

- In small practices, guidelines exist for determining when to seek help outside the organization.
- In larger organizations, guidelines exist for users to know how to get help, and for Health IT staff members to know when and how to get outside assistance.

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Recommended Practice

Implementation Status

19 Communication mechanisms ensure that EHR users learn of EHR changes promptly, and users are able to give feedback on related safety concerns.

[Checklist](#)

Principle: Activities to help the organization learn from EHR safety efforts to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- If observed errors are not reported, they will generally not be fixed.
- If the developer does not receive feedback, he or she will generally not address the issues.
- Patient harm can result if hazards are not addressed.

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Responsibility

Large organization:
Health IT, informatics-type department, developer
Small organization:
Office management

Suggested Sources of Input

Leadership team	Health IT support staff
Clinicians, support staff, and/or clinical administration	Health informatics team
	EHR developer

Examples of Potentially Useful Practices/Scenarios

- Responsibility is clear for reporting EHR safety errors and getting feedback.
- Someone is responsible for serving as the liaison to the developer for reporting problems and getting feedback.
- Communication channels are in place for including health information management staff in patient registration error correction and feedback.
- Software errors or desired changes for safety reasons are routinely reported to the developer.
- Reports about EHR safety reach the highest level in the organization routinely and feedback is given.
- Users know how to report EHR safety problems, and to whom they should be reported.

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Recommended Practice

Implementation Status

20 Staff members with job responsibilities for EHR safety are encouraged to participate in relevant professional activities and communicate with others in similar positions.

[Checklist](#)

Principle: Activities to help the organization learn from EHR safety efforts to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- If key internal people do not network with outsiders, up-to-date knowledge may not reach them.

Responsibility

Large organization:
Health IT, informatics-type department, developer
Small organization:
Office management

Suggested Sources of Input

Leadership team	Health IT support staff
Clinicians, support staff, and/or clinical administration	Health informatics team
	EHR developer

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

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Examples of Potentially Useful Practices/Scenarios

- Organizations support professional development of staff assigned responsibility for any aspect of EHR safety, by budgeting for and encouraging training.
- Staff members with responsibility for EHR safety establish routine mechanisms for discussing problems they encounter as they optimize the safety and safe use of EHRs. This may include participation in specific EHR computer user groups or in professional association activity.
- Professional organizations, including those for clinicians and office administration, often provide information about issues that might affect EHR safety.

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Recommended Practice

Implementation Status

21 Self-assessments, including use of the SAFER Guides, are conducted routinely by a team, and the risks of foregoing or delaying any recommended practices are assessed. [HIPAA Checklist](#)

Principle: Activities to help the organization learn from EHR safety efforts to prevent EHR safety hazards.

Rationale for Practice or Risk Assessment

- Without learning through use of available self-assessment tools, organizations risk overlooking critical hazards.

Responsibility

Large organization:
Safety officer and those involved in safety initiatives, informatics-type department
Small organization:
Office management, providers

Suggested Sources of Input

Leadership team	Health IT support staff
Clinicians, support staff, and/or clinical administration	Health informatics team EHR developer

Assessment Notes

Follow-up Actions

Person Responsible for Follow-up Action

Examples of Potentially Useful Practices/Scenarios

- Self-assessments related to EHRs and patient safety are done routinely.
- The self-assessment process includes setting targets for addressing items the organizational team identifies.

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