

Safety Assurance Factors for EHR Resilience (SAFER) Guides

The SAFER Guides are nine self-assessment guides designed to help healthcare organizations optimize the safety and safe use of EHRs. They have been developed by well known health IT safety researchers, Joan Ash from Oregon Health & Science University, Dean Sittig from the University of Texas, and Hardeep Singh from Baylor College of Medicine, in collaboration with Westat.

Each Guide addresses safety issues unique to EHR technology and offers recommended practices for the safe use of the EHR and for monitoring and improving EHR safety over time. Each guide begins with a Checklist that can be used by a multidisciplinary team for assessing their organization's level of implementation of each recommended practice.

The Guides also include worksheets for each recommended practice which identify the individuals who generally should be involved in the assessment of that particular recommended practice, as well as documenting the assessment itself and follow-up activities. Some of the recommended practices may be beyond the control of people within a healthcare organization, and therefore may involve outside organizations and people, such as diagnostic services providers or EHR developers.

The SAFER Guides are based on the best evidence available at this time. The Guides include references from the literature to support the recommended practices and to provide additional resources. Where applicable, recommended practices that may support Meaningful Use and HIPAA Security Rule requirements are identified; however, the SAFER Guides are not designed for regulatory compliance. In addition to downloading a fillable PDF version of each Guide, designed to facilitate self-assessment, the content of each Guide can also be viewed on the web with interactive links between the components that comprise each SAFER Guide.

The nine guides focus on the following areas:

Foundational Guides

High Priority Practices

The High Priority Practices SAFER Guide identifies “high risk” and “high priority” recommended safety practices intended to optimize the safety and safe use of EHRs. It is the one SAFER Guide that broadly addresses the EHR safety concerns discussed in greater detail in the other eight SAFER Guides.

Organizational Responsibilities

The Organizational Responsibilities SAFER Guide identifies individual and organizational responsibilities (activities, processes, and tasks) intended to optimize the safety and safe use of EHRs. This guide focuses chiefly on human behavior and relationships, and is focused on the people who have responsibility for patient safety in EHR-enabled healthcare organizations.

Infrastructure Guides

System Configuration

The System Configuration SAFER Guide identifies recommended safety practices associated with the way EHR hardware and software are set up (“configured”). EHR configuration includes the creation and maintenance of the physical environment in which the system will operate, as well as the implementation of the required hardware and software infrastructure.

System Interfaces

The System Interfaces SAFER Guide identifies recommended safety practices intended to optimize the safety and safe use of system-to-system interfaces between EHR-related software applications. Clinical information system integration occurs most often via interfaces between software applications, often from different system developers. This guide is intended to offer practices to ensure that interfaces send and receive information accurately and completely, enabling disparate systems to operate on the same data.

Contingency Planning

The Contingency Planning SAFER Guide identifies recommended safety practices associated with planned or unplanned EHR unavailability - instances in which clinicians or other end users cannot access all or part of the EHR. Occasional temporary unavailability of EHRs is inevitable, due to failures of software and hardware infrastructure, as well as power outages and natural and man-made disasters. Effective contingency planning addresses the causes and consequences of EHR unavailability, and involves processes and preparations that can minimize the frequency and impact of such events, ensuring continuity of care.

Clinical Process Guides

Patient Identification

The Patient Identification SAFER Guide identifies recommended safety practices associated with the reliable identification of patients in the EHR. Accurate patient identification ensures that the information presented by and entered into the EHR is associated with the correct person.

Computerized Provider Order Entry with Decision Support

The Computerized Provider Order Entry with Decision Support SAFER Guide identifies recommended safety practices associated with Computerized Provider Order Entry (CPOE) and Clinical Decision Support (CDS). This guide is intended to help an organization optimize the safety and safe use of CPOE with CDS in the EHR.

Test Results Reporting and Follow-up

The Test Results Reporting and Follow-up SAFER Guide identifies recommended safety practices intended to optimize the electronic communication and management of diagnostic test results. This guide offers recommended practices related to the content and communication of test results to the clinician, as well as recommended practices related to the documentation and follow-up of those results.

Clinician Communication

The Clinician Communication SAFER Guide identifies recommended safety practices associated with communication between clinicians. Processes relating to clinician communication are complex and vulnerable to breakdown. If implemented and used correctly, EHRs have potential to improve the safety and effectiveness of clinician communication.