

EMR Adoption Handbook for Hospitals (Less than 100 Beds)

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1. NCG EMR Initiative

A. Overview

In 2022, a survey conducted by the National Cancer Grid (NCG) among its member hospitals revealed that less than 15% were utilizing some form of electronic medical records (EMRs), and fully integrated EMRs were found in less than 10% of the hospitals. Over 80% of the centers identified the need for significant improvement in oncology-specific EMRs. The National Cancer Grid's digital and technology vertical, Koita Centre for Digital Oncology (KCDO) launched an initiative to empanel Electronic Medical Records (EMR) vendors and help develop and deploy oncology-specific EMR solutions that adhere to NCG guidelines across its network, to transform cancer care in India. Launched with the aim of standardizing and improving clinical practices in oncology, it is a collaborative approach involving leading healthcare institutions, clinicians, and technology partners.

In March 2023, NCG KCDO released the NCG EMR Requirements (NER) – a comprehensive set of EMR requirements needed for effective management of patients with cancer. The NER is a blueprint for the development and implementation of robust EMR systems which will serve general hospitals well, but are tailored specifically for oncology practices. It is available as a digital public good at [NCG-KCDO EMR Initiative](#).

The next step in supporting hospitals starting their EMR journey, is to offer hands-on guidance as they adopt and implement the EMR system. This guide is essential for National Cancer Grid (NCG) member hospitals, providing them with a structured, step-by-step approach to successfully manage the complexities of an Electronic Medical Record (EMR) system selection, deployment, and management.

B. EMR Adoption Guidelines Purpose

The EMR Adoption Guidelines provide a clear, structured roadmap for healthcare organizations transitioning to electronic medical records. Designed as a practical tool, the guidelines ensure hospitals are thoroughly prepared for each phase of the process—from initial planning and vendor selection to post-go-live support. By detailing key tasks such as readiness assessment, budget planning, infrastructure setup, data migration, staff training, and change management, the document helps hospitals manage the complexities of EMR adoption, minimize disruptions, and enhance patient care. With defined milestones and tools from KCDO, the handbook supports a smooth and efficient rollout. The hospital

steering committee should be able to use the checklists to ensure all tasks are completed on time, guiding a seamless transition to digital healthcare.

2. The Three Phases of EMR Adoption: A Structured Approach to Digital Transformation in Healthcare

This comprehensive guide outlines the three critical phases of Electronic Medical Record (EMR) adoption, i.e. Planning Stage (preparation stage), Implementation Stage, and Post Go-Live. It ensures hospitals are well-prepared for the transition, emphasizing strategic planning, careful vendor selection, smooth data migration, and continuous improvement. This phased approach fosters successful EMR adoption, optimizing care delivery and hospital efficiency.

Phase-1: Planning or Preparation Phase - Hospitals need to assess their current infrastructure, including technology, staffing, and workflows, to ensure they are prepared for EMR transition. Focuses on identifying essential system features, securing funding, vendor selection, contract finalization and formalizing requirements to ensure a structured approach to EMR implementation. The NCG-KCDO supports this by providing checklists, guidance, and financial assistance via its LEAP (Leading EMR Adopter Program) initiative.

Phase-2: Implementation Phase - The implementation stage involves the active execution of the EMR project plan. It includes system configuration, and the actual transition to the EMR system. After selecting the vendor, hospitals must follow a detailed implementation plan, including data migration, staff training, infrastructure setup, and go-live support. NCG-KCDO offers guidance throughout these steps, ensuring that hospitals receive continuous assistance in meeting key milestones and addressing challenges.

Phase-3: Post Go-Live - This stage ensures the long-term success of the EMR system by providing continuous support, monitoring performance, and driving improvements. From immediate support for resolving any initial issues to continuous system improvements and staff training to enhance user adoption and efficiency. Make use of the resources on offer to track system usage and key clinical indicators.

Phase-1: Planning or Preparation Phase: Laying the Foundation for EMR Transition

This phase focuses on preparing the hospital for a smooth EMR transition by establishing a solid foundation and addressing critical planning activities.

Key actions

- Conduct a comprehensive review of the hospital's existing infrastructure, workflows, and staffing to identify gaps and readiness for EMR adoption
- Assess the hospital's current IT infrastructure to ensure compatibility with the EMR system, including server capacity, network bandwidth, and security compliance
- Utilize tools like the EMR Readiness Assessment Checklist and IT Infrastructure Assessment Form for a systematic evaluation of hospital preparedness.
- Establish a cross-functional committee comprising clinicians, IT staff, administrative leaders, and department heads to oversee implementation.
- Identify and evaluate EMR vendors based on essential system features, interoperability, scalability, and compliance with regulatory standards.
- Secure funding or grants to cover costs related to software, hardware, training, and ongoing support. Leverage resources such as NCG's LEAP initiative for financial assistance.
- Evaluate data migration needs (if transitioning from an HMIS)

Resources Provided

- EMR Readiness and IT Infrastructure Assessment Checklist. [Click here](#)
- Budget Template. [Click here](#)
- Sample Vendor Evaluation checklist. [Click here](#)

Phase-2: Implementation Phase

The implementation phase involves the active execution of the EMR project plan. It includes configuration, and the actual transition to the EMR system.

A. Detailed Planning and Timeline Development

Work with the vendor to create a clear implementation roadmap, including key milestones and deadlines. Set a realistic go-live date, considering a phased rollout by department to minimize disruptions and ensure smooth adoption.

B. Data Migration and Testing

Identify critical patient and clinical data for migration, ensuring structured transfer. Conduct essential testing—unit testing for basic functionality, integration testing for system connectivity, and user acceptance testing (UAT) with key staff—to resolve issues before full-scale deployment.

C. Training and Change Management

Provide focused training for clinicians, nurses, and administrative staff, ensuring that superusers are

well-trained for ongoing support. Plan refresher sessions to address new features and system updates post-implementation.

D. Infrastructure Setup

Verify that IT infrastructure—computers, network, and servers—can support the EMR system. Ensure security measures like role-based access and audit logs are in place, along with backup solutions and a disaster recovery plan.

E. Go-Live Preparation

Start with a small-scale pilot in one department to identify challenges before a full rollout. Ensure vendor representatives, IT staff, and superusers are available on-site for immediate troubleshooting, and actively monitor system performance for real-time issue resolution.

Resources Provided

- Sample Project Plan. [Click here](#)
- Testing /UAT/Data Migration Checklist. [Click here](#)
- Training and Change Management Checklist. [Click here](#)

Phase-3: Post-Implementation or Post Go-live Phase

The post-implementation stage ensures the long-term success of the EMR system by providing continuous support, monitoring performance, and driving improvements.

Key actions

- Establish a dedicated helpdesk for immediate post-go-live support to resolve technical or workflow-related issues promptly.
- Conduct regular user feedback sessions to identify areas for improvement and adjust workflows accordingly.
- Implement routine system audits and updates to ensure compliance with new healthcare standards and technological advancements.
- Schedule ongoing training sessions to ensure all users stay proficient and new staff are onboarded effectively.
- Create a continuous improvement plan to track system performance and user satisfaction, adapting the system to evolving hospital needs.

Resources Provided

- Go-live checklist. [Click here](#)
- EMR Usage Report. [Click here](#)
- Key Performance Indicators - Clinical. [Click here](#)