

# **EMR Adoption Handbook for Hospitals (More than 100 beds)**

## Contents

1. NCG EMR Initiative Overview.....	3
2. EMR Adoption Guidelines Purpose.....	3
3. The Three Phases of EMR Adoption.....	4
4. Phase-1: Planning or Preparation Phase.....	5
5. Phase-2: Implementation Phase.....	6
6. Phase-3: Post Go-Live Phase .....	7

## 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, 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 vendor selection, contract finalization, system setup, and the actual transition to the EMR system. Hospitals must carefully evaluate EMR vendors and hardware/network needs, ensuring that contracts clearly specify requirements. 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.
- Evaluate the IT infrastructure to ensure it meets the technical requirements of the EMR system.
- Utilize tools such as the EMR Readiness Assessment Checklist and IT Infrastructure Assessment Form for structured evaluation.
- Form a cross-functional steering committee comprising clinicians, IT staff, administrative leaders, and department heads.
- Engage stakeholders early to secure buy-in and clearly communicate the project's objectives and expected outcomes.
- Define clear and measurable goals that align with the hospital's vision and patient care objectives.
- Develop a detailed project plan, outlining timelines, milestones, resource allocation, and risk mitigation strategies.
- Identify essential EMR features to meet clinical and administrative needs, including integration with existing systems.
- Secure funding or grants to cover the costs of software, hardware, training, and ongoing support. Utilize resources like NCG's LEAP initiative for financial assistance.

### Resources Provided

- EMR Readiness Assessment Checklist - [Click here](#)
- IT Infrastructure Assessment Form - [Click here](#)
- NCG EMR Requirements (NER) document - [Click here](#)
- Sample Project Plan. [Click here](#)
- Expression Of Interest (EOI) Form. [Click here](#)
- Budget Template. [Click here](#)

## Phase-2: Implementation Phase

The implementation phase involves the active execution of the EMR project plan. It includes vendor selection, contract finalization, system setup, and the actual transition to the EMR system. This phase focuses on evaluating and selecting the right EMR vendor as per hospital's procurement process (refer NCG empanelled vendors). This phase also focuses on finalizing contracts for hardware and network vendors as needed.

### Key actions

- Conduct a structured vendor evaluation based on the hospital's unique requirements, focusing on system compatibility, scalability, and vendor support. Refer to Appendix 2 - Vendor Evaluation Checklist
- Involve clinical staff in the selection process to ensure that the chosen EMR meets user needs and preferences.
- Negotiate clear and detailed contracts that include service level agreements (SLAs), data migration support, and maintenance. Sample SLA provided
- Follow the below step by step guide to navigate the journey from detailed planning to data migration to finally going live.

### A. Detailed Planning and Timeline Development

Collaborate with the EMR vendor to develop a comprehensive implementation plan, including key project phases, milestones, and deadlines. Establish a realistic go-live date in consultation with stakeholders, and consider a phased rollout by department to ensure smooth coordination and manageable progress. Refer to Sample Project Plan in Step 2 resources section.

### B. Data Migration and Testing

Define the scope of data migration with the vendor, including data cleansing and structuring for transfer. Perform extensive testing, including unit, integration, and user acceptance testing (UAT), to identify and resolve any issues before the full-scale implementation. Refer to the Data Migration and Testing/UAT checklists in the resources section.

### C. Training and Change Management

Create targeted training programs for clinicians, nurses, and administrative staff. Train superusers extensively to provide support during and after the go-live. Plan for ongoing training to cover new features and system updates as they are introduced.

### D. Infrastructure Setup

Ensure the hospital's IT infrastructure—including hardware, network, and servers—is prepared for the EMR system. Implement security measures such as encryption, role-based access, and audit logs, and test backup solutions and disaster recovery plans.

### E. Go-Live Preparation

Consider conducting a pilot go-live in one department to identify potential issues. During the full

rollout, have vendor representatives, IT staff, and superusers available on-site for immediate support, and closely monitor system performance for real-time issue resolution.

#### Resources Provided

- Sample RFP Template. [Click here](#)
- Sample Vendor Evaluation checklist. [Click here](#)
- Sample SLA for Contract Negotiation. [Click here](#)
- Testing /UAT Checklist. [Click here](#)
- 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](#)