

# **NCG-KCDO EMR Requirement (NER)- Preventive Oncology Module (Version 1.0)**

## FOREWORD

The National Cancer Grid (NCG) Electronic Medical Records (EMR) initiative has been well received by the NCG Hospitals and our community of healthcare professionals and stakeholders. The enthusiasm and support we have garnered for this initiative reflect a shared commitment to advancing cancer care through technology and collaboration.

As part of our ongoing efforts to enhance the EMR initiative, the Preventive Oncology template has been developed. This template aims to streamline the documentation of cancer prevention measures, ensuring comprehensive patient care and facilitating early detection and intervention. It enhances data accuracy and supports proactive healthcare management.

We share the pre-final version of the Preventive Oncology template and welcome feedback, suggestions and guidance from the healthcare professionals involved in treating patients with cancer, healthcare technology companies and providers. Your inputs will help develop EMRs with strong cancer care workflows which in turn will ensure better care, outcomes and value-based care for patients with Cancer across India.

**Dr C.S. Pramesh**

Convener, National Cancer Grid

August 2024

## Contents

<b>1. NCG EMR INITIATIVE OVERVIEW .....</b>	<b>4</b>
<b>2. Preventive Oncology Template Overview.....</b>	<b>4</b>
<b>3. Preventive Oncology Form .....</b>	<b>5</b>
<b>4. Appendices .....</b>	<b>12</b>
<b>Appendix 1- Glossary of terms.....</b>	<b>12</b>
<b>Appendix 2- NER Document.....</b>	<b>12</b>

## 1. NCG EMR INITIATIVE OVERVIEW

The National Cancer Grid Koita Centre for Digital Oncology (NCG KCDO) launched an initiative to empanel Electronic Medical Records (EMR) vendors and help develop high quality EMR solutions that are appropriate for use in hospitals providing cancer care. This marks a significant milestone in the ongoing efforts to promote digital health and enhance cancer care across the country. 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 also tailored specifically for oncology practices. The NER document is a result of intense deliberations over several months between healthcare professionals involved in cancer care and technology experts, and is available as a digital public good at [NCG-KCDO EMR Initiative](#).

To further support the development of the empanelled EMR systems, the NCG is developing detailed requirements and features in specific areas of oncology including radiotherapy, chemotherapy, surgical, multi-disciplinary tumour board, palliative care and preventive oncology. This document details the preventive oncology requirements and features, based on best practices developed at several leading NCG centres.

## 2. Preventive Oncology Template Overview

Building on the features outlined in the NER (NCG EMR Requirement), the Preventive Oncology template is designed to streamline and optimize the preventive oncology screening documentation for early identification and treatment initiation.

Key features of the Preventive Oncology Template include:

**2.1 Data Elements Standardization:** The template ensures the standardized collection and storage of essential data elements related to preventive oncology, including patient demographics, clinical history, screening results, and follow-up plans.

**2.2 Screening and Documentation:** The template provides robust functionality for documenting routine cancer screenings, capturing patient symptoms, and recording the duration of symptoms.

**2.3 Comorbidity and History Recording:** It includes detailed sections for capturing patient comorbidities, menstrual history, obstetric history, contraceptive history, hormone replacement therapy history, family history of cancer, and lifestyle habits.

**2.4 Examination and Follow-Up:** The template supports comprehensive documentation of general examinations, breast and cervical examinations (for females), and follow-up plans for patients completing preventive oncology screenings.

### 3. Preventive Oncology Form

Preventive Oncology									
SNo	Data Elements	Clinician's Response	Remarks for Vendors						
A	Case Number								
B	Visit No		Auto populate as per case no						
C	Name		Auto populate as per case no						
D	Age/Sex		Auto populate as per case no						
E	Name of the doctor								
<b>1 Registration</b>									
A	Routine Screening	<input type="checkbox"/> Yes <input type="checkbox"/> No							
B	Asymptomatic	<input type="checkbox"/> Yes <input type="checkbox"/> No	If the response to 1B is 'yes', 1C should be disabled.						
C	Symptoms	<input type="checkbox"/> Others <input type="checkbox"/> Swelling <input type="checkbox"/> Functional Difficulty <input type="checkbox"/> Deformity <input type="checkbox"/> Pain							
D	Duration of symptoms-Since	<input type="checkbox"/> ____ Years <input type="checkbox"/> ____ Months <input type="checkbox"/> ____ Weeks <input type="checkbox"/> ____ Days	Number						
<b>2 History</b>									
A	Comorbidities	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Multiple choice possible. If the response to 2A is yes, following table to be enabled.						
<table border="1"> <thead> <tr> <th>Name</th> <th>Age at onset of comorbidities</th> <th>Duration</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Renal disease</td> <td></td> <td><input type="checkbox"/> ____ Years</td> </tr> </tbody> </table>				Name	Age at onset of comorbidities	Duration	<input type="checkbox"/> Renal disease		<input type="checkbox"/> ____ Years
Name	Age at onset of comorbidities	Duration							
<input type="checkbox"/> Renal disease		<input type="checkbox"/> ____ Years							

<input type="checkbox"/> Kochs <input type="checkbox"/> Hypertension <input type="checkbox"/> Hepatitis <input type="checkbox"/> Heart disease <input type="checkbox"/> Diabetes <input type="checkbox"/> Cancer <input type="checkbox"/> Blood Transfusion <input type="checkbox"/> Asthma <input type="checkbox"/> Others		<input type="checkbox"/> _____ Months <input type="checkbox"/> _____ Weeks <input type="checkbox"/> _____ Days
B	Remarks	Free text box
<b>3</b>	<b>Menstrual History</b>	<b>To be enabled for females only</b>
A	Menstrual history	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If the response to 3A is No, 3B-3F to be disabled
B	Menopause Status	<input type="checkbox"/> Pre Menarchal <input type="checkbox"/> Pre-menopausal <input type="checkbox"/> Peri Menopausal <input type="checkbox"/> Post Menopausal
C	LMP Date	Calendar view
D	Marital Status	<input type="checkbox"/> Married <input type="checkbox"/> Unmarried <input type="checkbox"/> Separated <input type="checkbox"/> Divorced
E	Age at Marriage (In years)	
F	Hysterectomy done	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>4</b>	<b>Obstetric History</b>	<b>To be enabled for females only</b>
A	Obstetric history	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If the response to 4A is No, 4B-4K to be disabled
B	Gravida	
C	Para	
D	Abortion	In Number
E	Living Children	In Number
F	Normal Delivery	In Number
G	Caesarean Section	In Number

H	No of Dead children		In Number
I	No of Still Births		In Number
J	Have you ever breastfed your child?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
K	Duration of breastfeeding (In months)		Row 4K to be enabled only if the response to 4J is 'Yes'.
<b>5 Contraceptive History</b>			
<b>To be enabled for females only</b>			
A	Contraceptives	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	If the response to 5A is No, row 5B and 5C to be disabled
B	Contraceptive type	<input type="checkbox"/> Oral Pills <input type="checkbox"/> Tubal ligation <input type="checkbox"/> Natural method <input type="checkbox"/> Barrier <input type="checkbox"/> Sterilization <input type="checkbox"/> I.U.D <input type="checkbox"/> Injectables <input type="checkbox"/> Others, _____	
C	Duration		
D	Remarks		
<b>6 Hormone Replacement Therapy History</b>			
<b>To be enabled for females only</b>			
A	Hormone Replacement Therapy History	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	If the response to 6A is No, row 6B-6D to be disabled
B	Type of therapy	<input type="checkbox"/> Oestrogen only <input type="checkbox"/> Oestrogen-Progestogen Sequential <input type="checkbox"/> Oestrogen-Progestogen Continuous Combined <input type="checkbox"/> Tibolone <input type="checkbox"/> SERMs	
C	From Date		
D	Route of administration		
E	Remarks		
<b>7 Family History</b>			

A	Family history of cancer	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	If the response to 7A is No, row 7B-7G to be disabled
B	Relation with the patient		
C	Cancer Site		
D	Laterality		
E	Age at onset of disease (years)		In Number
F	Duration (In months/Years)		In Number
G	Status	<input type="checkbox"/> Death <input type="checkbox"/> Disease free <input type="checkbox"/> Palliative Care <input type="checkbox"/> Others	In Number

### 8 Substance Abuse History

A	Substance Abuse History	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	If the response to 8A is No, row 7B-7G to be disabled
B	Habits		Multiple choice possible

Name	Quantity	Age when the habit started (In years)	Duration	Has the patient quit the habit	If yes, what was the age of the patient	Duration since the patient has quit
<input type="checkbox"/> Alcohol <input type="checkbox"/> Beedi <input type="checkbox"/> Betal leaves <input type="checkbox"/> Betel Nut <input type="checkbox"/> Cigarette <input type="checkbox"/> Gutka <input type="checkbox"/> Masher <input type="checkbox"/> Pan Masala <input type="checkbox"/> Snuff <input type="checkbox"/> Tobacco Chewing <input type="checkbox"/> Others__			<input type="checkbox"/> __Days <input type="checkbox"/> __Weeks <input type="checkbox"/> __Month <input type="checkbox"/> __Years	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> __Days <input type="checkbox"/> __Weeks <input type="checkbox"/> __Month <input type="checkbox"/> __Years

C	Remarks		Open text box
---	---------	--	---------------



9 History of previous Cancer			
A	History of previous cancer	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	If the response to 9A is No, row 9B- and 9C to be disabled
B	Diagnosis		
C	Type of treatment	<input type="checkbox"/> Bone Marrow Transplant <input type="checkbox"/> Stenting <input type="checkbox"/> Hormone Therapy <input type="checkbox"/> Symptomatic <input type="checkbox"/> Radiology Intervention <input type="checkbox"/> Endoscopy Intervention <input type="checkbox"/> Chemotherapy <input type="checkbox"/> Radiology <input type="checkbox"/> Surgery	
10 General Examination			
A	Height/Length (in cm)		
B	Weight (kg)		
C	BMI		
D	BSA (sq m)		
E	General Examination	<input type="checkbox"/> Oedema <input type="checkbox"/> Cyanosis <input type="checkbox"/> Clubbing <input type="checkbox"/> Purpura <input type="checkbox"/> Obesity <input type="checkbox"/> Icterus <input type="checkbox"/> Pallor	
F	Nutrition		Free text box
G	Hydration		Free text box
H	Mouth and Oral Cavity Examination Findings- Lips/Tongue/ Teeth/Gums/ Buccal Mucosa		
I	Breast Examination Findings (for Females only)		
		Left	Right
	Signs of Breast surgery	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Axilla	<input type="checkbox"/> Others <input type="checkbox"/> Abnormal	<input type="checkbox"/> Others <input type="checkbox"/> Abnormal

	<input type="checkbox"/> Normal	<input type="checkbox"/> Normal	
Palpation			
Other significant findings			
<b>J</b> Cervical Examination Findings (To be enabled for females only)			
i	VIA	<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Inconclusive	
ii	VILLI		
K	Impression	<input type="checkbox"/> Normal <input type="checkbox"/> Invasive Cancer <input type="checkbox"/> CIN 3 <input type="checkbox"/> CIN 2 <input type="checkbox"/> CIN I <input type="checkbox"/> HPV Changes <input type="checkbox"/> Polyp <input type="checkbox"/> Cervicitis <input type="checkbox"/> Erosion <input type="checkbox"/> Atrophy <input type="checkbox"/> Others	Choose one
L	Remarks		Free text box
M	Investigations Advised		Multiple Choice Possible
i	Oral	<input type="checkbox"/> Oral Brush Cytology <input type="checkbox"/> Oral Punch Biopsy <input type="checkbox"/> USG Neck <input type="checkbox"/> Others	
ii	Breast	<input type="checkbox"/> Bilateral Mammography <input type="checkbox"/> USG B/L Breast & Axilla <input type="checkbox"/> Others	
iii	Cervical	<input type="checkbox"/> PAP Smear <input type="checkbox"/> HPV DNA <input type="checkbox"/> Cervical Punch Biopsy <input type="checkbox"/> Endocervical Curetage <input type="checkbox"/> Others	
iv	Prostate	<input type="checkbox"/> Sr. PSA <input type="checkbox"/> USG Pelvis <input type="checkbox"/> Others	

v	Abdomen	<input type="checkbox"/> USG Abdomen <input type="checkbox"/> USG Pelvis <input type="checkbox"/> Others	
vi	Thorax	<input type="checkbox"/> Chest X-Ray <input type="checkbox"/> CT Thorax <input type="checkbox"/> Others	
vii	USG - Other Sites		
viii	Tumor Markers	<input type="checkbox"/> CA 125 <input type="checkbox"/> CA 19.9 <input type="checkbox"/> CEA <input type="checkbox"/> AFP <input type="checkbox"/> Others	
ix	Blood Investigations	<input type="checkbox"/> CBC <input type="checkbox"/> Routine Biochemistry <ul style="list-style-type: none"> <li>• RFT</li> <li>• LFT</li> <li>• Sr Electrolytes</li> </ul> <input type="checkbox"/> FBS <input type="checkbox"/> PPBS <input type="checkbox"/> HbA1c <input type="checkbox"/> Lipid Profile <input type="checkbox"/> Others	
N	Follow up Screening Advised		
i	Oral	<input type="checkbox"/> After 3 months <input type="checkbox"/> After 6 months <input type="checkbox"/> After 1 year	
ii	Breast	<input type="checkbox"/> After 3 months <input type="checkbox"/> After 6 months <input type="checkbox"/> After 1 year <input type="checkbox"/> After 2 years	
iii	Cervical	<input type="checkbox"/> After 3 months <input type="checkbox"/> After 6 months <input type="checkbox"/> After 1 year <input type="checkbox"/> After 2 years	
O	Refer to other departments		
P	Refer Outside		
<b>End</b>			

## 4. Appendices

### Appendix 1- Glossary of terms

Abbreviations	
NCG	National Cancer Grid
EMR	Electronic Medical Record
NER	NCG EMR Requirements
LEAP	Leading EMR Adoption Program
CIN	Cervical Intraepithelial Neoplasia
BMI	Body Mass Index
IUD	Intra Uterine Device
LFT	Liver Function Test
RFT	Renal Function Test
FBS	Fasting Blood Sugar
PPBS	Post-Prandial Blood Sugar
AFP	Alpha- Fetoprotein
CEA	Carcinoembryonic Antigen

### Appendix 2- NER Document

1. [ncg-emr-requirements-ner.pdf \(kcdo.in\)](http://ncg-emr-requirements-ner.pdf(kcdo.in))