

NCG-KCDO EMR Requirement (NER)- Preventive Oncology Template (Version 2.0)

Document Name	Version	Published Date
NCG-KCDO EMR Requirement (NER) Preventive Oncology Template_1.0	1.0	3 Aug 2024
NCG-KCDO EMR Requirement (NER) Preventive Oncology Template_2.0	2.0	11 Oct 2024

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.

This collaborative effort has been informed by thorough industry research, ensuring that the NCG helps EMR vendors build solutions aligned with best practices and meet the diverse needs of our stakeholders.

We are immensely grateful for the feedback, suggestions, and guidance provided by the healthcare professionals involved in treating cancer patients, as well as the healthcare technology companies and providers. We are pleased to share the final version of the Preventive Oncology template. Thank you for your continued support and collaboration.

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Convener, National Cancer Grid
October 2024

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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, pain management and preventive oncology. This document details the preventive oncology requirements and features, based on best practices developed at several leading NCG centres.

2. EMR FEATURE BUILDING

A. 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 Co-morbidity and History Recording: It includes detailed sections for capturing patient co-morbidities, 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.

B. Methodology

Preventive Oncology (PO) Part A: Case History- Document the patient's registration details, including visit type, symptoms, and co-morbidities, along with substance abuse and family cancer history. This section ensures thorough documentation of past medical conditions, lifestyle factors, and cancer screening details.

Preventive Oncology (PO) Part B: Case History (Only for Females)- Captures detailed menstrual, obstetric, contraceptive, and hormone replacement therapy history for female patients. This part ensures the inclusion of reproductive health data, crucial for risk assessment in preventive oncology.

Preventive Oncology (PO) Part C: Examination Details- Record general physical examination details, including height, weight, BMI, and vital signs, along with specific examinations such as breast and cervical findings. The section supports standardized documentation of clinical findings necessary for diagnosis and follow-up planning.

3. PO Part A: Case History

Preventive Oncology			
SNo	Data Elements	Clinician's Response	Remarks for Vendors
A	Case Number		
B	Visit type	<input type="checkbox"/> New <input type="checkbox"/> Follow Up	
C	Name		Auto populate as per case no
D	Age/Sex		Auto populate as per case no
E	Name of the doctor		
1	Registration		
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"/> General <input type="checkbox"/> Breast Symptoms	Multiple Choice possible. Each of the choices will lead to further

		<input type="checkbox"/> Cervical Symptoms <input type="checkbox"/> Oral Symptoms <input type="checkbox"/> Gastro Intestinal Symptoms <input type="checkbox"/> Urinary Symptoms <input type="checkbox"/> Respiratory Symptoms <input type="checkbox"/> Others, _____	dropdowns as listed in Annexure 2.
D	Duration of symptoms-Since	<input type="checkbox"/> _____ Years <input type="checkbox"/> _____ Months <input type="checkbox"/> _____ Weeks <input type="checkbox"/> _____ Days	Numeric. Single choice possible. To be enabled for each and every symptom selected in 1C.

2 History

A	Co-morbidities	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Multiple choices possible. If the response to 2A is yes, following table to be enabled.
---	----------------	---	---

Name	Age at onset of each Co-Morbidity	Duration of each co- morbidity
<input type="checkbox"/> Renal disease <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"/> _____ Years <input type="checkbox"/> _____ Months <input type="checkbox"/> _____ Weeks <input type="checkbox"/> _____ Days

B	Remarks		Free text box
---	---------	--	---------------

3 Family History

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

4 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 choices possible. Add row for each habit

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"/> __ Days	<input type="checkbox"/> Yes		<input type="checkbox"/> __ Days
<input type="checkbox"/> Beedi			<input type="checkbox"/> __ Weeks	<input type="checkbox"/> No		<input type="checkbox"/> __ Weeks
<input type="checkbox"/> Betal leaves			<input type="checkbox"/> __ Month			<input type="checkbox"/> __ Month
<input type="checkbox"/> Betel Nut			<input type="checkbox"/> __ Years			<input type="checkbox"/> __ Years
<input type="checkbox"/> Cigaratte						
<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"/> Marijuana/Dru						
gs						
<input type="checkbox"/> Others__						

C	Occupational Exposure to any known Carcinogens		
D	Remarks		Open text box

5 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-9E to be disabled
B	Diagnosis		
C	Cancer site		

D	Stage at Diagnosis		
E	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"/> Radiation therapy <input type="checkbox"/> Surgery	
F	Remarks		
Go to Part B: Case History if the patient is female or Part C: for General Examination			

4. PO Part B: Case History (Only for Females)

Part B: Case History (Only for Females)			
1	Menstrual History		
A	Menstrual history	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	If the response to 1A is No, 1B-1F 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	
G	Indications for Hysterectomy		
H	Age at Hysterectomy		In numbers
2	Obstetric History		

A	Obstetric history	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	If the response to 2A is No, 2B-2K 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 2K to be enabled only if the response to 2J is 'Yes'.
3 Contraceptive History			
A	Contraceptives	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	If the response to 3A is No, row 3B and 3C to be disabled
B	Contraceptive type	<input type="checkbox"/> Oral Pills <input type="checkbox"/> Tubal ligation <input type="checkbox"/> Vasectomy <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 of contraceptive		
D	Remarks		
4 Hormone Replacement Therapy History			
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		

5. PO Part C: Examination Details

Part C: Examination Details			
1	General Examination		
A	Height/Length (in cm)		
B	Weight (kg)		
C	BMI		Auto Calculate
D	BSA (sq m)		Auto Calculate
E	Vitals	<input type="checkbox"/> Spo2, ____ <input type="checkbox"/> Blood Pressure, ____ <input type="checkbox"/> Others, _____	
F	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	
G	Nutrition		Free text box
H	Hydration		Free text box
I	Mouth and Oral Cavity Examination Findings- Lips/Tongue/ Teeth/Gums/ Buccal Mucosa		
i	Dental Hygiene		
ii	Mouth opening in cm		
J	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"/> Normal	<input type="checkbox"/> Others <input type="checkbox"/> Abnormal <input type="checkbox"/> Normal
Palpation		
Nipple Discharge		
Nipple Retraction		
Other significant findings		
K Cervical Examination Findings (To be enabled for females only)		
i	VIA	<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Inconclusive
ii	VILI	
iii	Colposcopy	Option to upload diagram/Image
iv	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"/> Ectropion <input type="checkbox"/> Frank Growth <input type="checkbox"/> Atrophy <input type="checkbox"/> Others
L	Remarks	Free text box
M	Investigations Advised	Multiple Choice Possible, Link to past reports, if 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"/> Nipple Discharge <input type="checkbox"/> Cytology <input type="checkbox"/> FNAC <input type="checkbox"/> Biopsy <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"/> Colposcopy <input type="checkbox"/> Colposcopy guided biopsy <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	Other Investigations	<input type="checkbox"/> CBC <input type="checkbox"/> Routine Biochemistry <ul style="list-style-type: none"> • RFT • LFT • Sr Electrolytes <input type="checkbox"/> FBS <input type="checkbox"/> PPBS <input type="checkbox"/> HbA1c <input type="checkbox"/> Lipid Profile <input type="checkbox"/> Others, Specify ____	
O	Prescription		
P	Follow Up Advise	<input type="checkbox"/> Tobacco Cessation,	

		Specify details _____ <input type="checkbox"/> Lifestyle Modification Advise, Specify details _____ <input type="checkbox"/> Others, Specify _____	
Q	Follow up Visit		
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	
R	Refer to other departments		Map the department list as per NCG facility
S	Refer Outside hospital		
End			

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
PO	Preventive Oncology
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
SERMs	Selective Estrogen Receptor Modulators

Appendix 2- NER Document

1. [ncg-emr-requirements-ner.pdf \(kcdo.in\)](#)
2. [Preventive Oncology- List of Symptoms - Google Sheets](#)