

NCG-KCDO EMR Requirement (NER)- Pre-Anaesthesia Check Up Template (Version 2.0)

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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 pre anaesthesia check-up template has been developed. This module aims to streamline the process, providing clinicians with the tools they need to deliver optimal care to patients with cancer.

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 Pre- Anaesthesia Check Up Template. Thank you for your continued support and collaboration.

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Convener, National Cancer Grid
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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 has developed detailed requirements and features in specific areas of oncology including radiotherapy, chemotherapy and surgical oncology. This document details the pre-anaesthesia check-up requirements based on best practices developed at several leading NCG centres.

2. EMR FEATURE BUILDING

A. Pre Anaesthesia Check Up Template Overview

Building on the features outlined in the NER (NCG EMR Requirement), the Pre-Anaesthesia Check-up template is designed to streamline and optimize the treatment process for patients with cancer. The template is designed to enhance the quality, safety, and efficiency of the treatment within the NCG network, ultimately improving outcomes for cancer patients and advancing the field of oncology care.

Key features of the Pre-Anaesthesia Check-up template include:

2.1 Preoperative Evaluation: Physical examination findings including vital signs (blood pressure, heart rate, respiratory rate, and temperature) and assessment of airway, cardiovascular, respiratory, and neurological systems.

2.2 Laboratory and Diagnostic tests: Incorporates results of the relevant laboratory tests and imaging studies.

2.3 Anaesthesia Risk Assessment: Evaluation of anaesthetic risk using standardized scoring systems (e.g., ASA physical status classification).

B. Methodology

The methodology used to build the pain management, PAC and palliative medicine assessment forms within the NER (NCG EMR Requirements) document encompasses a systematic and collaborative approach, involving key stakeholders and leveraging best practices across NCG hospitals.

3. Pre-Anaesthesia Check Up Form

Pre- Anaesthesia Check Up Form (PAC)			
Sno	Data elements	Clinician's Response	Remarks for Vendors
1	General Details		
A	Please select one to continue	<input type="checkbox"/> PAC <input type="checkbox"/> Review PAC	
B	Ward		
C	Case Number		
D	Name		Auto populate as per case no
E	Age		Auto populate as per case no
F	Sex		Auto populate as per case no
G	Height		
H	Weight		
I	BMI		Auto Calculate
J	Evaluating Anaesthesiologist		
K	Unit Name		Auto Populate from Surgery Module
L	Treating Doctor		Auto Populate from Surgery Module
M	Name of Procedure		Auto Populate from Surgery Module
N	Date of Surgery		Auto Populate from Surgery Module
O	Nature of Surgery	<input type="checkbox"/> Urgent <input type="checkbox"/> Emergency <input type="checkbox"/> Elective	Auto Populate from Surgery Module
2	Vitals		

A	Date		Auto populate today's date
B	Temperature		Open text box
C	Pulse		Open text box
D	Blood pressure		Open text box
E	Spo2		Open text box
F	Breath Holding Time (in Sec)		Open text box
3 General Physical Examination			
A	General Condition	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
B	Breathing Pattern	<input type="checkbox"/> Normal <input type="checkbox"/> Tachypnoea <input type="checkbox"/> Bradypnoea <input type="checkbox"/> Obstructed <input type="checkbox"/> Noisy Breathing <input type="checkbox"/> Stridor	
C	Orientation	<input type="checkbox"/> Normal <input type="checkbox"/> Confused <input type="checkbox"/> Very Poor <input type="checkbox"/> Agitated	
D	Pallor	<input type="checkbox"/> Yes <input type="checkbox"/> No	
E	Icterus	<input type="checkbox"/> Yes <input type="checkbox"/> No	
F	Cyanosis	<input type="checkbox"/> Yes <input type="checkbox"/> No	
G	Clubbing	<input type="checkbox"/> Yes <input type="checkbox"/> No	
H	Lymphadenopathy	<input type="checkbox"/> Yes <input type="checkbox"/> No	
I	Pedal Edema	<input type="checkbox"/> Yes <input type="checkbox"/> No	
J	LRTI	<input type="checkbox"/> Yes <input type="checkbox"/> No	
K	URTI	<input type="checkbox"/> Yes <input type="checkbox"/> No	
L	Fever	<input type="checkbox"/> Yes <input type="checkbox"/> No	
M	Pre-Anaesthesia Evaluation History	<input type="checkbox"/> Yes <input type="checkbox"/> No	Open text box

6 Airway Assessment			
A	Nares	<input type="checkbox"/> Normal <input type="checkbox"/> Abnormal	
B	Deviated Nasal Septum	<input type="checkbox"/> Normal <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Post Surgical	
C	Mouth Opening	<input type="checkbox"/> >4 cm <input type="checkbox"/> 3-4 cm <input type="checkbox"/> <3 cm	
D	Teeth	<input type="checkbox"/> Normal <input type="checkbox"/> Edentulous <input type="checkbox"/> Protruding <input type="checkbox"/> Artificial <input type="checkbox"/> Buck <input type="checkbox"/> Loose tooth	
E	Mallampati	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> NA	
F	Jaw Sliding	<input type="checkbox"/> +1 <input type="checkbox"/> 0 <input type="checkbox"/> -1	
G	Thyromental Distance	<input type="checkbox"/> >7.5 cm <input type="checkbox"/> 6-7.5 cm <input type="checkbox"/> <6 cm	
H	Neck		Open text box
I	Spine		Open text box
J	Tracheostomy	<input type="checkbox"/> Yes <input type="checkbox"/> No	Open text box
K	Airway Comments (if any other)		Open text box
7 Systemic Examination			
A	Cardiovascular System		Open text box
B	Respiratory System		Open text box
C	Abdominal System		Open text box
D	Central Nervous system		Open text box

8	Investigations and Imaging with dates		Integrate with the Laboratory Information system and auto populate the values/ Option to enter if done from outside
1	Blood group and RH Type		
2	Haemoglobin		
3	Platelet Count		
4	Total Leucocyte Count		
5	Differential Count		
i	Neutrophil Count		
ii	Lymphocyte count		
iii	Absolute Neutrophilic Count		
6	Platelet Count		
7	Liver Function test		
i	Bilirubin (Direct/Indirect)		
ii	SGOT		
iii	SGPT		
iv	ALP		
v	S. Albumin		
vi	S. Globulin		
vii	S. Proteins		
8	Coagulation profile		
i	Bleeding time		
ii	Clotting time		
iii	PT		
iv	INR		
v	aPTT		
vi	TT		
vii	Fibrinogen		
9	CRP		
10	Procalcitonin/Lactate		
11	Renal Function test		
i	S. Creatinine		
ii	Blood Urea		
iii	BUN/Uric Acid		
12	S. Electrolytes		
i	Sodium		
ii	Potassium		
iii	Chloride		

iv	Calcium		
v	Magnesium		
vi	Phosphate		
13	RBS		
14	FBS		
15	PPBS		
16	S NT- Pro BNP		
17	Thyroid Profile		Optional
i	Free T3		
ii	Free T4		
iii	TSH		
iv	Anti-TG		
v	Anti-TPO		
18	Viral Markers		
i	HIV		
ii	HBsAg		
iii	HCV		
19	ECG		Open Text box
20	X-Ray or USG		Open Text box
21	2 D Echo		Open Text box
22	Stress test		Open Text box
23	6 Minute Walk test		Open Text box
24	CPET		Open Text box
25	Pulmonary Function test		
26	Arterial Blood Gas		
27	CT-Scan or MRI		
28	V/Q Scan		
29	DL Scopy		
9 Speciality Reference			
A	Referred to		Map the list of departments as per the NCG center
B	Remarks		Open text box
10 Status			
A	ASA Grade	<input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> V	

		<input type="checkbox"/> VI <input type="checkbox"/> E	
B	Fitness Status	<input type="checkbox"/> Yes with accepted risk <input type="checkbox"/> No	
C	Anaesthesia Consent administered	<input type="checkbox"/> Yes <input type="checkbox"/> No	
D	Date		
11 Anaesthesiologist's Advice & Pre operative Orders			
A	Anemia Management	<input type="checkbox"/> Yes <input type="checkbox"/> No	Row 11B to be enabled if the response to 11A is yes
B	If Yes, Remarks		Open text box
C	Fasting guidelines prior to surgery: 2 Hours for clear liquids. 8 hours for heavy meal, 6 hours for light meal/formula feeds, 4 hours for breast feeding		Insert this line as a printed advice
12 Approvals			
A	Anaesthesiologist's Name		
B	Signature		E sign
C	Date		Calendar view/today's date
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
COPD	Chronic Obstructive Pulmonary Disease
HT	Hypertension
DM	Diabetes Mellitus

IHD	Ischemic Heart Disease
CAD	Coronary Artery Disease
CVA	Cerebrovascular Accident
TB	Tuberculosis
RFT	Renal Function Test
LFT	Liver Function Test
S NT Pro BNP	N-terminal pro-B-type natriuretic peptide
SGOT	Serum glutamic oxaloacetic transaminase
SGPT	Serum glutamate pyruvate transaminase
ALP	Alkaline phosphatase
PT	Prothrombin Time
INR	International Normalized Ration
aPTT	Activated Partial Throm- boplastin Time
TT	Thrombin Time
CRP	C-reactive protein
Anti-TG	Thyroglobulin autoantibodies
Anti-TPO	Anti-thyroid peroxidase antibodies
HIV	Human immunodeficiency virus
HBsAg	Hepatitis B surface antigen
HCV	Hepatitis C virus
CPET	Cardiopulmonary exercise testing
V/Q Scan	Ventilation-perfusion (V/Q) scan
DL Scopy	Direct Laryngoscopy
ASA Grade	American Society of Anesthesiologists (ASA) Physical Status Classification System

Appendix 2- NER Document

1. [ncc-emr-requirements-ner.pdf \(kcdo.in\)](https://www.kcdo.in/kcdo-emr-requirements-ner.pdf)