NCG-KCDO EMR Requirement (NER)- Multi-Disciplinary Tumour Board Module

(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, we have established distinct subcommittees to focus on specific areas of improvement. These subcommittees bring together subject matter experts in oncology from several NCG hospitals across the country to build the features and functionalities in EMR systems.

The Multi-disciplinary Tumour Board module has been developed in close collaboration with oncologists and other specialists from across the NCG, leveraging their insights and expertise to ensure its effectiveness and usability. This module aims to streamline the tumour board process, providing oncologists and other healthcare professionals 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 Multi Disciplinary Tumour Board Module. Thank you for your continued support and collaboration.

Dr C.S. Pramesh
Convener, National Cancer Grid
October 2024

Contents

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 oncology and multi-disciplinary tumour board. This document details the multi-disciplinary tumour board requirements and features, based on best practices developed at several leading NCG centres.

2. EMR FEATURE BUILDING

A. Multi-Disciplinary Tumour Board Module Overview

Building on the features outlined in the NER (NCG EMR Requirement), the Multi-Disciplinary Tumour Board (MDT) Module is designed to streamline and optimize the tumour board process for patients with cancer. The MDT Module is designed to enhance the quality, safety, and efficiency of treatment within the NCG network, ultimately improving outcomes for cancer patients and advancing the field of oncology care.

Key features of the MDT module include:

2.1 Attendees: A comprehensive list of all participants involved in the tumour board meeting, ensuring collaboration and input from various specialists.

2.2 Diagnostic Investigations/Imaging: Detailed presentation of diagnostic investigations and imaging results, tailored for both hematologic and non-hematologic cancers, to aid in accurate assessment and diagnosis.

2.3 Questions for MDT: A structured section for specific questions and discussion points for the multi-disciplinary team, facilitating targeted and efficient decision-making.

2.4 Final Decision: Documentation of the collective decision made by the tumour board regarding the patient's treatment plan, providing a clear and unified course of action.

2.5 Comments from Specialists: Insights and remarks from radiation, surgical, medical, radiology, and pathology specialists, ensuring a comprehensive evaluation and diverse perspectives on the patient's condition and treatment.

B. Methodology

The methodology used to build the MDT Module within the NER (NCG EMR Requirements) document encompasses a systematic and collaborative approach, involving key stakeholders and leveraging best practices across NCG hospitals. Recognizing the need, NCG KCDO formed a subcommittee which consisted of Radiation, Medical and Surgical oncologists from leading NCG hospitals across the country. This Core Team developed the MDT Module based on their expertise, market research, and discussions with clinical and technology professionals.

The Multi-Disciplinary Tumour Board (MDT) module is characterized into 3 parts:

MDT- Part A:Case Presentation- This section standardizes the collection and storage of essential data elements related for the case presentation. It includes patient history, examination details, Investigations, Imaging, diagnosis and treatment history.

MDT- Part B: Discussion Summary- This section is dedicated to recording detailed comments from each of the departments. It also includes the final decision.

MDT- Part C:Follow Up MDT Review- This section is dedicated to recording whether the first MDT review was followed or not.

3. MDT- Part A: Case Presentation

MDT Module- Case Presentation			
SNo	**Data Elements**	**Clinician's Response**	**Remarks for Vendors**
1	Attendees		Drop down of all departments as per facility-Doctors/Nurses/Social worker. Multiple rows possible as per the number of attendees.

A	Department		
B	Attendees		
2	**Primary Details**		
A	Tumour Board ID		Auto populate
B	Case No		Text box
C	Name of the patient		Auto populate
D	History of the patient		Auto populate
i	Personal History		Auto populate with option to Edit
ii	Family History		Auto populate with option to Edit Family history of cancer -if yes then in whom and what type
iii	Social History		Auto populate with option to Edit History of tobacco, smoking, alcohol with details
iv	Co-morbidities		Auto populate with option to Edit Comorbidities - duration, therapy
E	Treating Doctor/Unit Name		Auto populate
F	Presenting doctor		
3	**Previous History**		
A	Any prior Cancer/treatment	☐ Yes ☐ No	
i	If yes, please mention treatment with dates		If treatment undergone within the same facility, then auto populate the details. If the patient underwent treatment elsewhere, provide a free text box.
B	Type of disease	☐ Recurrent ☐ Progressive ☐ Other Cancer	Single choice possible
i	Status of Other Cancer		Row to be enabled only if chosen 'Other cancer' in Row 3B
ii	If in remission, mention		

	disease free interval (in Days/Months/Years)		
C	Surgery details		Auto populate from Surgery module, Link to Discharge Summary
i	Date of Surgery		
ii	Type of Surgery/ Name of the procedure		
D	Chemotherapy details		Auto populate from Chemotherapy module, Link to Discharge Summary
i	No of Cycles received with Start date and End date		
ii	Chemotherapy Regimen details		
iii	Chemotherapy Drugs		
iv	Chemotherapy Schedule		
v	Toxicity Summary		
E	Radiotherapy details		Auto populate from Radiotherapy Module, Link to Discharge Summary
i	Radiotherapy Summary		
ii	Toxicity Summary		
iii	Treatment interruption		
4	**Examination Details**		
A	General examination		Auto populate/Edit
B	Performance Status- (ECOG)		Auto populate/Edit
C	Local Examination and Nodal Examination		Auto populate/Edit
D	Systemic Examination		Auto populate/Edit
E	Any other clinical findings		Auto populate/Edit
F	Size of the largest lymph node		Auto populate/ Edit
5	**Please select one**	☐ Haematological Cancer ☐ Non-Haematological Cancer	If Haematological Cancer is selected than, row 5A-i, ii, iii to appear, If Non-Haematological cancer is selected than 5B-I, ii, iii to appear
5A	Diagnostic Investigations/Imaging		For Haematological Cancer

i	Lab Investigations	☐ CBC ☐ Biochemical Parameters- LFT, RFT, FBS/RBS ☐ Tumour Marker ☐ Viral Markers ☐ Peripheral Smear ☐ Others	Attach Reports
ii	Pathology	☐ Biopsy (LN, other site) ☐ Bone Marrow Aspiration ☐ Bone marrow biopsy ☐ Flow cytometry (PB/BM) ☐ Cytogenetics ☐ Molecular tests ☐ Others	Attach Reports
iii	Diagnostic Imaging	☐ CT SCAN/PET SCAN ☐ MRI ☐ X-RAY ☐ Others	Attach Reports
5B	Diagnostic Investigations/Imaging		For Non- Haematological Cancer
i	Lab Investigations	☐ Tumour Marker ☐ CBC ☐ Biochemical Parameters-LFT, RFT, FBS/RBS ☐ Others	Attach Reports
ii	Pathology	☐ Biopsy ☐ Molecular tests ☐ Others	Attach Reports
iii	Diagnostic Imaging	☐ CT SCAN/PET SCAN ☐ MRI ☐ Others	Attach Reports
iv	Diagnostic Procedure	☐ Staging Laparoscopy ☐ Others	Attach Reports
6	**Diagnosis**		
A	Primary Diagnosis		Auto-populate from EMR, only if Lymphoma is selected then additional Site option to auto-populate

B	Laterality	☐ Right ☐ Left ☐ Bilateral ☐ Not Applicable	
C	Clinical tumour Size (MM)		Auto-populate from EMR
D	Staging		Auto-populate from EMR/ Option to edit
i	T Stage of Tumour		
ii	N Stage of Tumour		
iii	M Stage of Tumour		
iv	TNM Staging of Tumour		
E	Risk Stratification	☐ Low ☐ Intermediate ☐ High ☐ NA	
F	Grading, (If Applicable)	☐ I ☐ II ☐ III ☐ IV	Auto populate from histopathology reporting, if avail
G	Reasons for MDT	☐ Treatment planning – New ☐ For treatment planning -At relapse ☐ For diagnosis ☐ Others, Please specify	
H	Questions for MDT		Open text box, Auto Populate from clinical Modules, if available
	Go to Part B- Discussion Summary		

4. MDT- Part B: Discussion Summary

Discussion Summary			
SNo	Data Elements	Clinician's Response	Remarks for Vendors
7	**Discussion Summary**		

A	Decision of MDT Discussion		Open text box
B	Decision as per the NCG Guidelines	☐ Yes ☐ No, Reason____	
C	Comments		Provide Open text box to record comments from each of the following departments
i	Radiation Oncology		
ii	Surgical Oncology		
iii	Medical Oncology		
iv	Radiology		
v	Pathology		
D	Need for any further tests		Open text box
E	Need for Subsequent MDT	☐ Yes ☐ No	
F	Final Decision (Treatment plan/Any other investigation)		Open text box
G	Any change in the final diagnosis after discussion with the MDT	☐ Yes ☐ No	
H	If yes, please mention final diagnosis		Open text box to be enabled only when the response to 7E is 'Yes'.
END			

5. MDT- Part C: Follow Up MDT Review

MDT-2			
SNo	Data elements	Clinician's Response	Remarks for Vendors
A	During subsequent MDT, was the first decision followed	☐ Yes ☐ No	Link to Previous MDT Details- Date wise
B	If no, Reason		Open text box
Repeat MDT Part A and MDT Part B			

6. Appendices

Appendix 1- Glossary of terms

Abbreviations	
NCG	National Cancer Grid
EMR	Electronic Medical Record
NER	NCG EMR Requirements
LEAP	Leading EMR Adoption Program
MDT	Multi-Disciplinary Tumour Board
ECOG	Eastern Cooperative Oncology Group
CBC	Complete Blood Count

Appendix 2- NER Document

1. ncg-emr-requirements-ner.pdf (kcdo.in)