



# NCG-KCDO EMR Requirement (NER)Surgical Oncology 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 Surgical Oncology module has been developed in close collaboration with surgical oncologists from across the NCG, leveraging their insights and expertise to ensure its effectiveness and usability. This module aims to streamline the OT Scheduler process, providing oncologists, anaesthetists, nurses and other healthcare providers 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 Surgical Oncology module. Thank you for your continued support and collaboration.

**Dr C.S. Pramesh**Convener, National Cancer Grid
July 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 and surgical oncology. This document details the surgical oncology requirements and features (including Operation Theatre, surgery, anaesthesia and recording of postoperative outcomes), based on best practices developed at several leading NCG centres.

#### 2. EMR FEATURE BUILDING

#### A. Surgical Oncology Module Overview

Building on the features outlined in the NER (NCG EMR Requirement), the Surgical Oncology Module is designed to optimize the documentation, streamlining the process, ensuring quality checks within the documentation, monitoring the key performance metrics, minimizing the errors due to lack or incomplete documentation, ease of use, analytics to provide patterns of care and outcomes.

Key features of the Surgical Oncology module include:

- **2.1 Patient Scheduling**: Efficiently schedule surgical procedures for patients based on various factors such as surgeon availability, operating room availability and urgency of the procedure.
- **2.2 Procedure Prioritization:** Prioritize surgical procedures based on the severity of the condition and other critical factors to ensure timely treatment for patients with urgent needs.
- **2.3 Resource Management:** Manage surgical resources including operating rooms, surgical equipment, staff, and supplies to optimize utilization and avoid conflicts or double bookings.





- **2.4 Surgeon and Staff Allocation:** Assign surgeons, nurses, anaesthetists, and other support staff to surgical procedures based on their availability, expertise, and workload, ensuring efficient resource allocation.
- **2.5 Real-Time Updates:** Provide real-time updates and notifications to surgical teams regarding schedule changes, cancellations, or additions, enabling prompt adjustments and minimizing disruptions.
- **2.6 Anaesthesia Management:** Coordinate anaesthesia services including pre-operative evaluations, anaesthesia selection, monitoring during surgery, and post- anaesthesia care, ensuring patient safety and comfort.
- **2.7 Compliance and Documentation:** Ensure compliance by incorporating surgical checklist and maintain documentation for surgical procedures, including pre-operative, intraoperative records, and post-operative procedures, complications, specimen handling and other details.
- **2.8 Post- Operative Complications:** A comprehensive list of post-operative complications has been developed with a feature to add Clavien Dindo grading for each complication.
- 2.9 Reporting and Analytics: Generate comprehensive reports and log book on surgical activity.

#### B. Methodology

The methodology used to build the Surgical Oncology 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 surgical oncologists from leading NCG hospitals across the country. The Surgical Oncology Core Team developed the Surgical Oncology Module (including surgical, anaesthesia and nursing requirements) based on their expertise, and discussions with clinical and technology professionals.

The Surgical Oncology module is characterized into 9 parts:

- **OT- Part A: OT Booking-** It refers to the process of scheduling surgical procedures for oncology patients in the operating theatre (OT). OT Booking ensures efficient utilization of operating room resources, minimizes scheduling conflicts, and optimizes patient flow for surgical interventions.
- **OT- Part B: OT Worklist-** The OT Worklist is a dynamic schedule that provides an overview of scheduled surgical cases, including patient details, procedure types, surgeon assignments, and anticipated start times. It serves as a real-time dashboard for OT staff to monitor the status of surgical cases, prioritize tasks, and allocate resources accordingly.
- **OT- Part C: Surgical Checklist-** It is a standardized tool designed to enhance patient safety and minimize the risk of adverse events during surgical procedures. It consists of a series of preoperative, intra-operative, and post-operative safety checks aimed at verifying patient identity, surgical site marking, equipment availability, and adherence to best practices.





- **OT- Part D: Surgical Management-** Details about Surgical team along with type of surgery done, details of surgery (preparation, incision etc) intra- Operative findings, surgical specimen details, any complications and timings of the surgery.
- **OT- Part E: Anaesthesia Management-** It involves the administration and monitoring of anaesthesia during surgical procedures for oncology patients and includes pre-operative assessment, anaesthesia induction, intra-operative monitoring, pain management, and post-operative care.
- **OT- Part F: Post- Operative Complications-** This section refers to adverse events or complications that may arise following oncology surgery.
- **OT- Part G: Diagrammatic Template-** This section is a visual aid or template used to document surgical procedures, anatomical landmarks, and operative findings.
- **OT- Part H: Log Book-** Enables surgeons and anaesthesiologists to track their caseload, monitor outcomes, and reflect on their practice, contributing to continuous improvement and learning.
- **OT- Part I: Reports-** Reports refer to generated documents or summaries that capture key data and metrics related to surgical oncology activities.

#### 3. OT- Part A: OT Booking

		Surgical Oncology Module	
SNo	Data Elements	Clinician's Response	Remarks for Vendors
1	Case Number		
2	Name of the patient		Auto Populate based on case number
3	Age/Sex		Auto Populate based on case number
4	Ward/Bed		
5	Unit Name		
6	Treating Doctor		
7	Case Status	<ul><li>☐ Minor</li><li>☐ Elective</li><li>☐ Emergency</li><li>☐ Re- Exploration</li></ul>	
8	Type of Surgery	<ul><li>□ Primary</li><li>□ Adjunct</li><li>□ Reconstructive</li></ul>	Multiple Choice Possible
9	Name of Procedure		List of surgeries in the Appendix 2. Surgeries to





			be mapped as per response selected in Row no 8.
10	Laterality	<ul><li>☐ Right</li><li>☐ Left</li><li>☐ Bilateral</li><li>☐ Not Applicable</li></ul>	
11	Approach	<ul><li>□ Open</li><li>□ Laparoscopic</li><li>□ Robotic</li></ul>	Multiple Choice Possible
12	Duration of the surgery	☐ 1 Hour ☐ 2 Hours ☐ 3 Hours ☐ 4 Hours ☐ 5 Hours ☐ 6 Hours ☐ 7 Hours ☐ More than 8 Hours	
13	Date of the surgery		Calendar View
14	OT Room No		Enable as per NCG Centre
15	Surgeon Name		Enable as per NCG Centre
16	Pre-Operative Diagnosis		Open text box
17	Viral Markers	<ul><li>☐ HBsAg</li><li>☐ HCV</li><li>☐ HIV</li><li>☐ COVID</li></ul>	
18	Insurance	☐ Yes ☐ No	If the response to row no 18 is 'Yes', row no 19 to be enabled.
19	Type of Insurance	<ul><li>☐ State Insurance</li><li>☐ Private Insurance</li><li>☐ Ayushman Bharat</li></ul>	To be configured as per NCG Centre
20	ASA Physical Status class		Auto Populate from PAC Module and option to modify.
21	High Risk MDT	<ul><li>☐ Yes</li><li>☐ No</li><li>☐ Not Applicable</li></ul>	By default, it should be Not Applicable.
22	If Yes, Comments		If the response to row no 21 is 'Yes', row no 22 to be enabled.
23	Blood group		Auto populate from EMR
24	Any Past transfusions	☐ Yes	





		□ No	
25	Any history of transfusion reactions	☐ Yes ☐ No	Row 26 to be enabled only if the response to row 25 is 'Yes'
26	If yes, Details about reaction		Open text box
27	Remarks (Eg equipment needed/Position of the patient etc)		Open text box
		Go to Part B: OT Worklist	

### 4. OT- Part B: OT Worklist

		OT Worklist	
SNo	Data Elements	Clinician's Response	Remarks for Vendors
1	Primary Details		
Α	From Date		Provide date filter option. Patient list to appear in the format given in SNO 2 (Select from the table) as per the option selected. Example- If Option C (Completed/Signed) is selected- all the surgeries completed within the selected timeframe to appear in the given format.
В	To Date		
С	Completed/Signed		List of surgeries completed to appear within the timeframe selected as per the given format
D	Cancelled		List of surgeries cancelled to appear within the





									timef	rame se	lected	as per
									the g	iven forı	mat	
Е	OT Room								Same	as abov	/e	
F	Pending In	progr	ess						Same	as abov	/e	
G	Change Pri	ority (	Order						chang the s below if the Restr enab	de an opge prioriurgery fiv. And porder is icted acolled as persented acolled as persented as pe	ty orderom the rovide of change cess to er NCG	r of table reason ed.
2	Select from		+abla									
	Select Iron	ı me	table									
Select	the	me of ient	Age/ Sex	Ward/ OPD	OT Room No	Date of Surgery	Name of Proce- dure propos ed	Remark s	Clinical Data	Blood Requsiti on	PAC	Fit for Anaest hesia
									Link to EMR	Link to EMR	Link to EMR	Auto populat e from PAC Module
				<b>C</b>	OT 5	+ C. C	:! 0	al-lie				
				GO TO	OI Par	t C: Surg	icai Cne	CKIIST				





#### 5. OT- Part C: Surgical Checklist

		Surgical Checklist	
Sno	Data elements	Clinician's Response	Remarks for Vendors
1	Primary details		
A	Case Number		
В	Name of the patient		Auto Populate based on
С	Age/Sex		case number Auto Populate based on
			case number
D	Ward/Bed		
E	Unit Name		
F	Treating Doctor		
2	In the OT before Induction	- SIGN IN	
Α	Patient has confirmed		
I	Identity	☐ Yes ☐ No	
ii	Procedure	☐ Yes	
		□ No	
iii	Side (Laterality)	☐ Yes	
		□ No	
iv	Anaesthesia and Surgery	☐ Yes	
	consent	□ No	
В	Site marked	☐ Yes	
		□ No	
С	Viral Markers	☐ Yes ☐ No	
D	Blood Confirmed	☐ Yes, No of Units Avail	
		□ No	
Е	Specified Instruments	☐ Yes	
	available	□ No	
F	Preparation for position	☐ Yes	
		□ No	
G	Anaesthesia Machine	☐ Yes	
	Check	□ No	
Н	Pulse Oximeter on	☐ Yes	
	patient and functioning	□ No	





I	Difficult airway	☐ Yes ☐ No	
J	Aspiration risk	☐ Yes ☐ No	
K	Adequate starvation	☐ Yes ☐ No	
L	Any Known Allergy?	☐ Yes ☐ No	
М	E-Signatures		
I	Surgical Team		E-Sign
ii	Anaesthesia Team		E-Sign
lii	Nursing Team		E-Sign
3	In the OT before Skin Incisi	on- TIME OUT	
Α	Surgeons, anaesthetist nurses and technicians introduce themselves and confirm patients Identity	☐ Yes ☐ No	
I	Patient	☐ Yes ☐ No	
ii	Procedure	☐ Yes ☐ No	
iii	Side (Laterality)	☐ Yes ☐ No	
В	Anticipated critical Events		
i	From Surgical Team		Open text box
ii	From Anaesthesia Team		Open text box
iii	From Nursing Team		Open text box
С	Mop/Gauze count done and recorded	☐ Yes ☐ No	
D	Antibiotic Prophylaxis	☐ Yes ☐ No	
Ε	Essential Imaging displayed	☐ Yes ☐ No	
F	Check HPR Frozen form	☐ Yes ☐ Not Applicable	
G	Check Tourniquet application	☐ Not Applicable ☐ Open text box	
Н	Throat pack inserted	☐ Yes ☐ No	
I	E-Signatures		
i	Surgical Team		E-Sign





ii	Anaesthesia Team		E-Sign
iii	Nursing Team		E-Sign
4	In the OT before closure- S	IGN OUT	
Α	Name of Procedure Recorded	☐ Yes ☐ No	
В	Instrument, Sponge and needle count correct	☐ Yes ☐ Open text box	
С	Specimen Labelled	☐ Yes ☐ No	
D	Any Equipment problems to be addressed	☐ Yes ☐ No	If yes, provide an open text box
E	Post Operative Care concerns		
i	Post Op Care Concerns- Surgical Team		Open text box
ii	Post Op Care Concerns- Anaesthesia Team		Open text box
iii	Post Op Care Concerns- Nursing Team		Open text box
F	E-Signatures		
I	Surgical Team		E-Sign
ii	Anaesthesia Team		E-Sign
iii	Nursing Team		E-Sign
5	Before Extubation		
Α	Before Extubation, throat pack removed	<ul><li>☐ Yes</li><li>☐ Not Applicable</li></ul>	
В	E-Signatures		
I	Surgical Team		E-Sign
ii	Anaesthesia Team		E-Sign
iii	Nursing Team		E-Sign
	Got	to OT Part D-Surgical Management	:





# 6. OT- Part D: Surgical Management

		OT Management	
Sn o	Data elements	Clinician's Response	Remarks for Vendors
1	Primary details		
	•		
Α	Case Number		
В	Name of the patient		Auto Populate based on case number
С	Age/Sex		Auto Populate based on case number
D	Ward/Bed		
E	Unit Name		
F	Treating Doctor		
2	Surgery team		
Α	Primary Surgeon		Restricted access as per the Dept
В	Assistant Surgeon 1		Add more rows depending upon team strength
С	Assistant Surgeon 2		
D	Assistant Surgeon 3		
E	Primary Anaesthetist		Restricted access as per the Dept
F	Anaesthetist 1		
G	Anaesthetist 2		
2	Reconstruction Team		
_			1
Α	Primary Surgeon		Restricted access as per the Dept
В	Assistant Surgeon 1		
С	Assistant Surgeon 2		
D	Assistant Surgeon 3		
	l		
3	Nurses		





	9	Scrub Nurse 1			Restricted acce Dept	ss as per the	
В	9	Scrub Nurse 2					
4	[	Duration					
Α	Ор	eration	Start	Start	End	End	
	·		Date	time	date	Time	
В	Ana	aesthesia	Start	Start	End	End	
			Date	time	date	Time	
С	1	Type of Anaesthesia	☐ General		Auto populate		
			☐ Regional		Anaesthesia Ma	anagement	
			☐ Both (Gene	ral + Regional)			
			☐ MAC				
5	(	Operation Proposed					
Α	ι	Jnit Name			Auto populate		
В	1	Name of Procedure			Auto populate		
С	F	Prophylactic antibiotics		Open text box			
6	(	Operation Performed					
		•					
Α	ι	Jnit Name					
	A Unit Name						
SI	NO	TYPE OF NAM	1E OF PROCEDU	RE	LATERALIT	ГҮ	
SI	NO	TYPE OF NAM SURGERY	1E OF PROCEDU	RE	LATERALIT	ГҮ	
SI A	NO	SURGERY Primary	1E OF PROCEDU	RE	LATERALIT	ГҮ	
A B	NO	SURGERY Primary Adjunct	1E OF PROCEDU	RE	LATERALIT	ГҮ	
A B C	NO	SURGERY  Primary  Adjunct  Reconstructive	1E OF PROCEDU	RE	LATERALIT	ΓΥ	
A B		SURGERY  Primary  Adjunct  Reconstructive  Node dissection	IE OF PROCEDU	RE	LATERALIT	ГҮ	
A B C D	(	SURGERY  Primary  Adjunct  Reconstructive  Node dissection  Other Name of	1E OF PROCEDU	RE		ΓΥ	
A B C D	( 	SURGERY  Primary Adjunct Reconstructive Node dissection Other Name of Procedure	IE OF PROCEDU	RE	Open text box	ΓΥ	
A B C D	( F	SURGERY  Primary  Adjunct  Reconstructive  Node dissection  Other Name of  Procedure  Approach	1E OF PROCEDU	RE	Open text box Open text box	ΓΥ	
A B C D	( F	SURGERY  Primary Adjunct Reconstructive Node dissection Other Name of Procedure Approach Pre-Operative Diagnosis		RE	Open text box	ΓΥ	
A B C D	( F	SURGERY  Primary  Adjunct  Reconstructive  Node dissection  Other Name of  Procedure  Approach	☐ Minor	RE	Open text box Open text box	ΓΥ	
A B C D	( F	SURGERY  Primary Adjunct Reconstructive Node dissection Other Name of Procedure Approach Pre-Operative Diagnosis	☐ Minor		Open text box Open text box	ΓΥ	
A B C D	( F	SURGERY  Primary Adjunct Reconstructive Node dissection Other Name of Procedure Approach Pre-Operative Diagnosis	☐ Minor ☐ Elective ☐ Emergency		Open text box Open text box	ΓΥ	
A B C D	1	SURGERY  Primary Adjunct Reconstructive Node dissection Other Name of Procedure Approach Pre-Operative Diagnosis Case Status	☐ Minor		Open text box Open text box	ΓΥ	
A B C D E F	G F F F G C C C C C C C C C C C C C C C	SURGERY  Primary Adjunct Reconstructive Node dissection Other Name of Procedure Approach Pre-Operative Diagnosis Case Status  Skin Preparation	☐ Minor ☐ Elective ☐ Emergency ☐ Re- Explora		Open text box Open text box	ΓΥ	
A B C D E	G F F F G C C C C C C C C C C C C C C C	SURGERY  Primary Adjunct Reconstructive Node dissection Other Name of Procedure Approach Pre-Operative Diagnosis Case Status	☐ Minor ☐ Elective ☐ Emergency	tion	Open text box Open text box	ΓΥ	





		☐ Dirty	
Н	Findings		
I	Procedure including incision, ligatures, sutures		
J	Blood products	<ul><li>□ PRBC</li><li>□ FFP</li><li>□ SDP</li><li>□ RDP</li><li>□ Cryoprecipitate</li></ul>	Multiple Choice possible
K	Volume of blood products administered		In Numbers
L	Materials forwarded to Pathology for Examination		
M	Post-Operative Diagnosis		Open text box
_			
7	Intra-Operative findings		
Α	Site		
В	Surgical Staging		
i	T		
ii	N		
iii	M		
С	Blood loss (ml)		
D	Frozen section	☐ Yes ☐ No	Row 7E to be enabled only when the response to row 7D is Yes
Е	Frozen Section report		In future, ability to link with Synoptic reports of Pathology
F	Resection Status	□ R0 □ R1 □ R2	
G	Margins	☐ Clear ☐ Involved ☐ Wide ☐ Planned Close ☐ Controlled contaminated ☐ R2 ☐ Spillage ☐ Debulking	
Н	Drains	☐ Closed Suction☐ Abdominal, Specify location and location	





		☐ Chest		
		☐ Corrugated		
		☐ Uneventful		
ı	Intraoperative Course	☐ Complicated		
		☐ Curative		
J	Intent of Procedure	☐ Non-Curative		
K	Intra Operative complication(s)	<ul> <li>□ None</li> <li>□ Nerve Injury</li> <li>□ Vascular Injury</li> <li>□ Organ Injury</li> <li>□ Haemorrhage</li> <li>□ Others, Specify</li> </ul>	Multiple Choice possible	
L	Details of Complications		Open text box	
М	Intra-op referral	☐ Yes ☐ No		
N	If yes, Specify		Row 7N to be enabled only when the response to row 7M is Yes	
0	Tumour Size (in mm or cm)			
Р	Location of tumor			
Q	Post Op Antibiotic protocol			
	Go to OT Part E: Anaesthesia Management			





# 7. OT- Part E: Anaesthesia Management

Anaesthesia Management			
	1		
Sno	Data Elements	Clinician's Response	Remarks for Vendors
1	Primary Details		
	Timal y Details		
Α	Case No		
В	Name		Auto Populate based on case number
С	Age/ Sex		Auto Populate based on case number
D	Height		Open text box
Е	Weight		Open text box
G	Ward/Bed		Auto Populate based on case number
Н	Unit Name		Auto Populate based on case number
I	Treating Doctor		Auto Populate based on case number
2	Pre-Induction Assessmen	t	
A	Surgery		
В	ASA Status		Auto-populate from PAC/Option to Choose
С	Aspiration Risk	□ No □ Yes	Auto-populate from OT Part C- Surgical checklist (Row 2J)
D	Blood Confirmed	☐ Yes ☐ Not Applicable	Auto-populate from OT Part C- Surgical checklist (Row 2D)
E	Type of surgery	☐ Elective ☐ Urgent ☐ Emergency	Auto-populate from OT Module
F	Anaesthesia machine check	☐ Yes ☐ No	Auto-populate from OT Part C- Surgical checklist (Row 2G)
G	Informed Consent	☐ Standard ☐ High Risk	





Н	Premedication	<ul><li>☐ Anxiolytic</li><li>☐ Antisialagogues</li><li>☐ Analgesic</li><li>☐ Others</li></ul>	Multiple choice possible. Open text box for name of the drugs, route and dose.
I	ВР		Numeric fields. Should flag if BP is less than 90/50 or higher than 180/110. Option to override with a justification.
J	RR		Numeric fields. Should flag if RR is less than 10 and more than 20. Option to override with a justification.
K	PR		Numeric fields. Should flag if PR is less than 50 and more than 120. Option to override with a justification.
L	SpO2		Numeric fields. Should flag if SpO2 is less than 95. Option to override with a justification.
M	Temp		Numeric fields. Should flag if temp is greater than 100 degree C. Option to override with a justification.
N	Consciousness status	<ul><li>☐ Normal</li><li>☐ Obtunded</li><li>☐ Unconscious</li></ul>	
3	Mode of Anaesthesia		
A	Mode of Anaesthesia	☐ General ☐ Regional ☐ Both (General + Regional) ☐ MAC	Select one. 3B/3C/3D will open as per the selection in 3A
В	General Anaesthesia	☐ GA ☐ GA + Regional ☐ GA following a failed Spinal Anaesthesia/ Epidural	
С	Regional Anaesthesia	<ul> <li>□ Spinal</li> <li>□ Epidural</li> <li>□ Combined Spinal Epidural</li> <li>□ Peripheral Nerve Block</li> <li>□ Fascial Plane Block</li> <li>□ IVRA</li> </ul>	Multiple Options possible. To open up further modules as per the option





			☐ Others				
	D	MAC	☐ LA+ Monitoring				
			☐ Conscious Seda				
	4	Monitoring			-	e choice P	
					-		ore time and
						olumns as	•
						ring done. should ha	
					text box		ave open
					text box	· ·	
Ī	SNo	Particulars		Time	Value	Time	Value
	Α	02					
	В	Monitors Connected-					
		ECG					
		NIBP					
		SPO2					
		ETCO2					
		Temp					
		Pulse BP					
		Others					
	С	N2O/Air					
	 D	Inhalation Agent					
	E	IV Fluid					
	F	Urine O/P					
	G	Blood SNo					
	5	IV Access	☐ Pre- Induction				
			$\square$ post-induction,				
			Reason				
			☐ Peripheral				
			☐ Central				
	Α	Peripheral Lines- Sites,					
	С	Gauge Central Line					
	B i	Site	□ Internal Internal	Voin	Choose	one	
	'	Site	☐ Internal Jugular		CHOOSE	one	
			☐ Subclavian Vein				
	ii	Size	☐ Femoral vein				
	11	SIZE	□ 5F				
			☐ 7F				
	iii	No of attempts	☐ Others, Specify_		In numb	or	
	iv	No of attempts  Issues, if any			Free tex		
	IV	issues, it ally			THEE LEX	L	





6	Arterial Line		
i	Site	☐ Radial ☐ Dorsalis Pedis ☐ Femoral	
ii	Laterality		
iii	Size- G	□ 20 □ 22 □ 24	
iv	Technique	☐ Standard Canula ☐ Seldinger	
V	No of attempts		
vi	Issues, if any		
I Gene II Regio Both I	ral Anaesthesia to open, if		
	GENERAL		
	GENERAL		
	ΔΝΔΕςΤΗΕςΙΔ		
	ANAESTHESIA		
A	ANAESTHESIA  Time of Induction		Open text box
A B		☐ Yes ☐ No	Open text box
	Time of Induction		Open text box
В	Time of Induction Preoxygenation	□ No □ Intravenous	Open text box
В	Time of Induction Preoxygenation  Induction  Intubation response prevention  Intravenous-Opioids	□ No □ Intravenous □ Inhalational □ Opioids □ NTG □ Lignocaine □ Esmolol □ Labetalol □ Other, Specify □ Fentanyl, Dose □ Morphine, Dose □ Tramadol, Dose □ Other, Specify	Open text box
B C D	Time of Induction Preoxygenation Induction Intubation response prevention	□ No □ Intravenous □ Inhalational □ Opioids □ NTG □ Lignocaine □ Esmolol □ Labetalol □ Other, Specify □ Fentanyl, Dose □ Morphine, Dose □ Tramadol, Dose	Open text box





		□ N2O+ O2	
Н	Inhalation Agent	☐ Isoflurane	
		☐ Sevoflurane	
ı	Muscle Relaxant 1-	☐ Succinyl Choline, Dose	Multiple choice possible
	Intubation	☐ Rocuronium, Dose	
		☐ Vecuronium, Dose	
		☐ Atracurium, Dose	
		☐ Cis- Atracurium, Dose	
L	Muscle Relaxant 2- for	☐ Succinyl Choline, Dose	Single choice possible
	Maintenance	☐ Rocuronium, Dose	
		☐ Vecuronium, Dose	
		☐ Atracurium, Dose	
		☐ Cis- Atracurium, Dose	
N	Airway and Oxygen	□ ETT	Single choice possible.
	delivery devices	<ul> <li>Standard</li> </ul>	Further drop downs to
		<ul> <li>Preformed</li> </ul>	appear under ETT and SGD.
		<ul> <li>Double Lumen</li> </ul>	
		With bronchial	
		blocker	
		□ SGD	
		Supreme     Auragain	
		<ul><li>Auragain</li><li>iGel</li></ul>	
		Proseal	
		Others, Specify	
		☐ Face Mask	
		☐ Nasal Prongs	
		☐ Hudson Mask	
		☐ Rigid bronchoscope	
		☐ Tracheostomy tube	
		, , , , , , , , , , , , , , , , , , , ,	
1	Mode of Intubation		
Α	Intubation	☐ Awake	
		☐ GA+ Muscle Relaxant	
		☐ GA+ Spont. Ventilation	
		☐ Pre-Op Tracheostomy (LA)	
		☐ Not Applicable	
В	Method of Intubation	☐ Video Laryngoscope- C	
		Blade	
		☐ Video Laryngoscope- D	
		Blade	
		☐ Standard Laryngoscope	
		☐ Flexible Bronchoscope	





		☐ Others	
С	Route	□ Nasal	
		□ Oral	
		☐ Tracheostomy	
D	CL Grade		
		 □ 2A	
		 □ 2B	
		· · · · · · · · · · · · · · · ·	
		□ 4	
Е	Percentage of Glottic	□ 0	
	Opening (POGO)	_ ° □ 25	
		□ 50	
		□ 75	
		□ 100	
F	Adjuncts	☐ Bougie	
		☐ Stylet	
		☐ Others, Specify	
G	Number of Attempts	E others, speerly	In numbers
Н	Number of Operators		In numbers
ı	Complications	☐ Desaturation less than 90%	
	•	☐ Significant trauma	
		☐ Aspiration of stomach	
		contents	
		☐ Aspiration of Blood	
		☐ Others	
2	Maintenance		
Α	Inhalational	☐ Oxygen+ Nitrous Oxide+	
	Maintenance	Volatile Agent 	
		☐ Oxygen + Air + Volatile	
	1.1	Agent	
В	Intravenous Maintenance- TIVA	□ TCI	
		□ Non-TCI	
С	Details of	☐ Propofol	
	TIVA/Inhalation	☐ Dexmedetomedine	
		☐ Remifentanil	
_	2	Others, Specify	
D	Breathing system	☐ Circle Absorber	
		☐ Jackson Rees	
		☐ Magill's	
		☐ Bains	





E	Ventilator Mode	☐ Spontaneous ☐ Pressure Support	
		☐ Volume Control	
		☐ Pressure Control	
		☐ Others, Pls Specify	
F	Non-Opiod Analgesic	☐ Paracetamol, Dose	Multiple choice possible
	Drugs	☐ Diclofenac, Dose	
		☐ Others, Pls specify	
G	Antiemetic Drug	☐ Metoclopramide, Dose	Multiple choice of drug
		☐ Ondansetron, Dose	possible with dose of each
		☐ Dexamethasone, Dose	drug
		☐ Others, PIs specify	
		, ,	
3	Ventilation Settings		
Α	Tidal volume or preset		Flag for more than 8ml/Kg
	pressure		Ideal body weight and less
			than 6 ml/kg/ Ideal body
			weight with an option to
В	Pata/Minuta		override with justification.  In Numbers
С	Rate/Minute I:E Ratio		In Numbers
D	PEEP in cm H2O		In Numbers
E	Airway pressure cm H2O		In Numbers
F	ETCO2 mm Hg		In Numbers
G	Gas Scavenging	☐ Yes	m reambers
	040 0041 01101110	□ No	
П	REGIONAL	☐ Spinal	Individual Modules to open
	ANAESTHESIA	☐ Epidural	up depending on the options
	7.1.0.1.2011.1.2011.1	☐ Combined Spinal Epidural	selected.
		☐ Peripheral Nerve Block	
		☐ Fascial Plane Block	
		☐ IVRA	
		☐ Others,	
	Regional anaesthesia	☐ Asleep	
	negional anacomesia	☐ Asieep	
		□ AWake	
1	SPINAL		
-	J. 1147 LE		
Α	Posture	☐ Lateral	
		☐ Sitting	
В	Needle type	L Jitting	
С	Size		





D	Site of Insertion	☐ L3-L4	
		☐ L4-L5	
_		☐ Others	
E	Approach	☐ Median	
		☐ Para median	
F	Number of attempts		
G	Number of operators		
Н	Time	☐ Start of surgery	
		☐ End of Surgery	
- 1	Local Anaesthetic		
J	Concentration		
K	Volume		
L	Adjuvants Drug and dose		
M	Spinal Catheter	☐ Yes, Specify	
		□ No	
N	Extent of Block	☐ Checked, Details of	
		level	
		□ Not checked	
0	Complications, If any	☐ No action	
		☐ Inadequate action	
		·	
		☐ High Spinal	
		☐ Total Spinal	
		☐ Severe hypotension	
		☐ Others,	
Р	Any other comments		
2	Epidural		
		_	
Α	Posture	☐ Lateral	
		☐ Sitting	
В	Needle type		
С	Size		
D	Site of Insertion	☐ Lumbar, Details	Free text in Details
		☐ Thoracic, Details	
		☐ Others, Details	
Е	Approach	☐ Median	
		☐ Para median	
F	Technique	☐ Intermittent	Single Choice possible
	1	☐ LOR- Loss of Resistance to	9
		Air	
		☐ Intermittent LOR to Saline	
		☐ Continuous Saline	
		technique	





		☐ Hanging drop☐ Others, Pls Specify	
G	Depth of epidural space from skin		In Numbers
Н	Depth of catheter insertion		
I	Number of attempts		
J	Number of operators		
K	Time	<ul><li>☐ Start of surgery</li><li>☐ End of Surgery</li></ul>	
L	Test dose	<ul> <li>☐ For Intrathecal, drug and dose</li> <li>☐ For Intravascular, drug and dose</li> <li>☐ Positive, details</li> <li>☐ Negative</li> </ul>	Multiple options with free text in drug and dose
M	Local Anaesthetic		
N	Concentration		
0	Volume		
Р	Loading dose		
Q	Infusion		
R	Adjuvants Drug and dose		
S	Extent of Block	☐ Checked, Details of level ☐ Not checked	
T	Complications, If any	<ul> <li>□ Dural puncture</li> <li>□ Bloody tap</li> <li>□ Severe neurological</li> <li>symptoms</li> <li>□ Abandoned</li> <li>□ Others, specify</li> </ul>	
U	Any other comments	, <u>, , , , , , , , , , , , , , , , , , </u>	
3	Combined Spinal Epidural		Open both the above section 1 and section 2 along with below details
Α	Technique	☐ Spinal followed by Epidural ☐ Epidural followed by spinal	Choose one
4	Peripheral Nerve Block		
Α	Name of block	☐ Brachialplexus, Details • Interscalene	Multiple choice possible





		<ul> <li>Supraclavicular</li> </ul>	
		<ul><li>Axillary</li></ul>	
		☐ Other Upper limb blocks,	
		Details	
		☐ Femoral, Details	
		☐ Sciatic, Details	
		☐ Other Lower limb blocks,	
		Details	
		☐ Others, Specify	
В	Posture	☐ Lateral	Single choice Possible
		☐ Sitting	
С	Laterality	☐ Right	
		□ Left	
		☐ Bi- lateral	
D	Technique	☐ USG Guided	Multiple choice possible
	·	☐ Nerve stimulator guided	
		☐ Landmark technique	
Е	Needle type		
F	Size		
G	Site of Insertion		
Н	Time	☐ Start of surgery	
		☐ End of Surgery	
- 1	Local Anaesthetic	<u> </u>	
J	Concentration		
K	Volume		
L	Adjuvants Drug		
M	Concentration		
N	Volume		
0	Catheter	☐ Yes, Details	
		□ No	
Р	Extent of Block	☐ Checked, Details of	
		level	
		☐ Not checked	
Q	Complications, if any		
R	Any other comments		
4	Fascial Plane Block		
4	I asciai Fiane Diuck		
Α	Name of Fascial block	☐ Thoracic, details	Multiple choice possible with
		☐ Abdominal, details	details of each option
		☐ Others, Specify	
В	Laterality		
ט	Lateranty	☐ Right	
		□ Left	





		☐ Bi-lateral	
С	Posture	☐ Lateral	Single choice Possible
		☐ Sitting	
D	USG Guided	☐ Yes	
		□ No	
Е	Needle type		
F	Size		
G	Time	☐ Start of surgery	
Ū		☐ End of Surgery	
Н	Local Anaesthetic	Lilu of Surgery	
	Concentration		
J	Volume		
K	Adjuvants Drug		
L	Concentration		
M	Volume		
N	Catheter	☐ Yes	
.,	Catricter	□ No	
0	Extent of Block		
U	Extent of block	☐ Checked, Details of	
		level	
	Canadiastiana ifan.	☐ Not checked	
Р	Complications, if any		
5	IVRA		
	IVKA		
3	1		
		□ Unner limb	
A	Site	☐ Upper limb	
A	Site	☐ Upper limb ☐ Lower limb	
A B	Site  Duration in minutes		
A B C	Site  Duration in minutes  Local Anaesthetic Name		
A B C D	Site  Duration in minutes  Local Anaesthetic Name  Concentration		
A B C D	Site  Duration in minutes  Local Anaesthetic Name  Concentration  Volume		
A B C D E	Site  Duration in minutes  Local Anaesthetic Name  Concentration  Volume  Adjuvants Drug		
A B C D E F	Site  Duration in minutes  Local Anaesthetic Name  Concentration  Volume  Adjuvants Drug  Concentration		
A B C D E	Site  Duration in minutes Local Anaesthetic Name Concentration Volume Adjuvants Drug Concentration Volume		
A B C D E F G H	Site  Duration in minutes  Local Anaesthetic Name  Concentration  Volume  Adjuvants Drug  Concentration  Volume  Extent of Block		
A B C D E F G	Site  Duration in minutes Local Anaesthetic Name Concentration Volume Adjuvants Drug Concentration Volume		
A B C D E F G H	Site  Duration in minutes  Local Anaesthetic Name  Concentration  Volume  Adjuvants Drug  Concentration  Volume  Extent of Block		
A  B C D E F G H I	Site  Duration in minutes Local Anaesthetic Name Concentration Volume Adjuvants Drug Concentration Volume Extent of Block Complications, if any		
A B C D E F G H	Site  Duration in minutes  Local Anaesthetic Name  Concentration  Volume  Adjuvants Drug  Concentration  Volume  Extent of Block		
A  B C D E F G H I	Site  Duration in minutes Local Anaesthetic Name Concentration Volume Adjuvants Drug Concentration Volume Extent of Block Complications, if any		
A  B C D E F G H I J	Site  Duration in minutes Local Anaesthetic Name Concentration Volume Adjuvants Drug Concentration Volume Extent of Block Complications, if any		
A  B C D E F G H I J	Site  Duration in minutes Local Anaesthetic Name Concentration Volume Adjuvants Drug Concentration Volume Extent of Block Complications, if any  MAC  Local Anesthetic		
A  B C D E F G H I J	Site  Duration in minutes Local Anaesthetic Name Concentration Volume Adjuvants Drug Concentration Volume Extent of Block Complications, if any		
A  B C D E F G H I J	Site  Duration in minutes Local Anaesthetic Name Concentration Volume Adjuvants Drug Concentration Volume Extent of Block Complications, if any  MAC  Local Anesthetic  Name of Drug		
A  B C D E F G H I J	Site  Duration in minutes Local Anaesthetic Name Concentration Volume Adjuvants Drug Concentration Volume Extent of Block Complications, if any  MAC  Local Anesthetic  Name of Drug Concentration		





		☐ Topical application	
		☐ Others, Specify	
2	Additives		
Α	Name of Drug		
В	Concentration		
С	Volume		
	l		
3	Sedatives		
_			
Α	Name of Drug	☐ Propofol, Dose	Multiple choice possible
		☐ Ketamine, Dose	
		☐ Midazolam, Dose	
		☐ Fentanyl, Dose	
		☐ Dexmedetomidine, Dose	
В	Ramsay Sedation Scale	Choose from number 1-6	
С	Oxygen	□ No	
	supplementation	☐ Nasal Prongs	
		☐ Facemasks	
		☐ Others, Specify	
4	Complications	☐ Emergency Airway	
		intervention needed, Details_	
		☐ Conversion to GA,	
		Details	
		☐ Others, Specify	
		Below portion will be common	
	5 ·· · 5 ···		
7	Patient Position	☐ Supine	Multiple Choice possible
		☐ Supine with extension of	
		head	
		☐ Supine with Lithotomy	
		☐ Trendelenberg	
		☐ Reverse Trendelenberg	
		☐ Prone	
		☐ Semi Prone	
		☐ Right lateral	
		☐ Left lateral	
		☐ Others, Specify	
8	Pressure areas padded	☐ Yes	
		□ No	
9	Eyes shut and taped	☐ Yes	





			□No				
10	Maintenance Normothermia		None Inline Fluid \ Warming Bla Warming Ma Others, Spec	anket attress			
11	Temperature Mor		☐ None☐ Skin☐ Nasopharyn☐ Oro-esophaa☐ Other core, S	geal			
12	Total Input						
I	IV Fluids						oice possible. lume for each cted
IV Flu	iids					Volume (M	1)
□ Rir □ No □ De □ 5% □ 10 □ Pla □ Ge □ Alk □ Ma □ 1%	IV Fluids Volume (ML)  Ringer Lactate  Normal Saline  Dextrose Normal Saline  10% Dextrose  Plasmalyte  Gelofusine  Albumin 20%  Albumin 5%  Mannitol 20%  1% DRL  2% DRL						
ii Blood/Blood Multiple Choice Possible. Products/Coagulation Mention Volume, Bag No, Products Reaction for each option selected							lume, Bag No,
	d/ Blood Volu ucts/Coagul products	me (ml)	Bag No		Reacti	on	Reaction details





☐ Whole Blood ☐ Packed Cells ☐ FFP ☐ Cryoprecipitate ☐ Random Donor Platelets ☐ Single Donor Platelets ☐ Tranexamic Acid ☐ Others, Pls Specify				□ Yes		To appear only if the response to Reaction is 'Yes'. Provide Open text box.	
42	Takal Outure						
13	Total Outpu	IT					
Α	Blood loss						
В	Urine Outpu	ıt					
С	Other Losse						
						1	
14	14 Intra-Op Complications		□ C □ R □ H □ C □ D □ D	irway related ardiovascular espiratory emaorrhagic NS yselectrolytemia other Metabolic		each option	otion, Details of
4 =	- 10 N						
15	End Op Not	es					
Α	Reversal at-	Time					
В	Reversal Dru		Glyc	eostigmine and opyrrolate, dose ugamadex, dose one			
С	Reversal Do	se					
D	Extubation		□и	neventful eeded Reintubation ot extubated			
Е	End Op Spin Anaesthesia						
F	Post Op Ven		□N	0			





		☐ Planned					
	., ., .	☐ Unplanne					
G	Vasoactive Drugs at end	☐ Adrenalin		With infusion rates in a table			
	of surgery	□ Nor- Adre		format. Multiple choice possible			
		☐ Dobutam		possible			
		☐ Vasopres					
		☐ Amiodard	one				
		□ NTG					
		☐ Labetalol					
		☐ Esmolol					
		☐ Others, P	ls Specify				
Н	Post Extubation	☐ Laryngosı					
	Complications	☐ Bronchos					
		☐ Upper air	way obstruction				
		☐ Hypovent	ilation				
		☐ Hypopno					
		☐ Others, P	ls Specify				
1.0	Ford On Vital Barrana store						
16	End Op Vital Parameters						
Α	Patient Condition	□ Patient fu	ılly awake and				
,,	ration condition	obeys comm					
		☐ Patient sl					
		unobstructe	• •				
			on Ventilator				
		support					
В	Vitals						
			_				
Vitals			ŀ	Parameter			
PR BP							
SpO2							
RR							
	erature						
С	Post Extubation	☐ Laryngos	oasm				
	Complications	☐ Bronchos	pasm				
		☐ Upper air	way obstruction				
		☐ Hypovent	ilation				
		☐ Hypopno					
		☐ Others,Sp	ecify				





D	Patient shifted with following airway adjuncts  Level of post op	☐ Endotracheal tube ☐ Tracheostomy tube ☐ Oropharyngeal airway ☐ Nasopharyngeal airway ☐ None of the above ☐ Routine	Single choice Possible
	monitoring	☐ High Dependency ☐ Intensive care	
17	Post Operative Advice		
1/	Post Operative Advice		
Α	Oxygen Supplementation	☐ Yes ☐ No	
В	NPO For	Hours	
С	IVF- Maintenance	ml/hour	
D	Analgesics Orders		
E	Antiemetics given		
F	Pre-op Chronic Medications		
G	Investigations	<ul> <li>□ CBC</li> <li>□ Electrolytes</li> <li>□ Biochemistry</li> <li>□ Coagulation</li> <li>□ Thromboelastogram (TEG)</li> <li>□ Xray</li> <li>□ ECG</li> <li>□ Others, Pls Specify</li> </ul>	
Н	Other Comments		
	Go to O	T Part F: Post Operative Complic	ation





# 8. OT Part F: Post Operative Complication

		Post Operative Complications	
		au	
SNo	Data Elements	Clinician's Response	Remarks for Vendors
A	Unit Name		This module will be avail for OP and IP
В	Post Op Complications	☐ Yes ☐ No	Further drop downs to appear only if User chooses 'Yes'
С	Complication/s		Multiple choice possible. Map the list of complications mentioned as per the Unit Name (Appendix 2). Provide an option of Others too. Row D and E to repeat for each complication.
D	Describe the complications and write the grade if applicable		Open text box
E	Clavien Dindo Grading of complication	☐ Grade 1 ☐ Grade 2 ☐ Grade 3 ☐ Grade 3a ☐ Grade 3b ☐ Grade 4 ☐ Grade 4a ☐ Grade 4b ☐ Grade 5	Scale to be mapped
F	30 Day Re-Admission	☐ Yes ☐ No	Auto Calculate/ Populate from date of last discharge
G	30 Day Mortality	☐ Yes ☐ No	Auto Calculate/ Populate from admission and death records
Н	90 Day Re-Admission	☐ Yes ☐ No	Auto Calculate/ Populate from date of last discharge
I	90 Day Mortality	☐ Yes ☐ No	Auto Calculate/ Populate from admission and death records
	Go to	OT Part G: Diagrammatic Tem	plate
	<b>G</b> 10		P





# 9. OT Part G: Diagrammatic Template

		Diagrammati	ic Templat	te		
SNo	Data Elements	Clinician's Res	sponse		Rema	arks for Vendors
1	Case Number				Auto	Populate
2	Name				Auto	Populate
3	Age/Sex				Auto	Populate
4	Ward/Bed	Auto Populate				
5	Unit Name	Auto			Populate	
6	Treating Doctor	Auto Po				Populate
	Document Type		Name	Rer	marks	To upload any picture/Image/Reports/ Short Clips/Videos etc
	·					
		Go to OT Part	H: Log Boo	k		





# 10. OT Part H: Log Book

						Lo	g Book					
CNI		Data Ela		<b>.</b>		Clini	sion/s Dos			Domanica for V	and ava	
SN	0	Data Ele	emen	ts		Ciini	cian's Res	ponse		Remarks for V	endors	
1		Case Nur	nber									
2		Name								Auto Populate		
3		Age/Sex								Auto Populate		
4		Unit Nan	ne				Auto Populate					
5		Treating	Docto	r						Auto Populate		
Sno	Date o surger	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Diagnosis	Procedure	Unit Name	Name of the Surgeon	Status of the Surgeon	Nature of the Surgery			
										Primary/Assistant		
					(	o to OT	Part I: Rep	orts				





# 11. OT Part I: Reports

									Reports					
SN	lo	Da	ata Ele	ment	ts			Clini	ician's Res	ponse		Rem	arks for Ve	ndors
Δ	١	Fro	om Dat	:e								dowr	ide filter opti nload the rep llinician	
В	3	То	Date									dowr	ide filter opti nload the rep linician	
C		Na	me of	Surge	on			To map as per NCG Center				G		
C	)	Ur	nit Nam	ne								To m	ap as per NC er	G
Sno	Operat Date						Preop Diagr	oerative nosis	Postoperative Diagnosis	Procedure	Unit Name	Name of the Surgeon	Status/Category	Case Status
													A	
													В	





# **Appendices**

## Appendix 1- Glossary of terms

	Abbreviations
NCG	National Cancer Grid
EMR	Electronic Medical Record
NER	NCG EMR Requirements
LEAP	Leading EMR Adoption Program
ОТ	Operation Theatre
Pre Op	Pre-operative
End OP	End-operative End-operative
Post OP	Post – operative
RR	Respiratory Rate
ВР	Blood Pressure
PR	Pulse Rate
SpO2	Peripheral oxygen saturation
Ht	Height
Wt	Weight
HBsAg	Hepatitis B surface antigen
HIV	Human Immunodeficiency Virus
HCV	Hepatitis C Virus
PM-JAY	Pradhan Mantri Jan Arogya Yojana
PAC	Pre-Anaesthesia check
HPR	Histopathological report
GA	General Anaesthesia
RA	Regional Anaesthesia
MAC	Monitored anaesthesia care
ICU	Intensive Care Unit
ASA	American Society of Anaesthesiologists
NIRS	Near-infrared spectroscopy
TEE	Transoesophageal echocardiography
CL Grade	Cormack-Lehane (CL)
TIVA	Total intravenous anaesthesia
TCI	Target Controlled Infusion (TCI)
ETCO2	End-tidal carbon dioxide
FFP	Fresh frozen plasma
DRL	Dextrose in Ringer Lactate
IVRA	Intravenous regional anaesthesia
PACU	Post Anaesthesia Care Unit
FS	Fractional shortening
RV	Residual volume
NTG	Nitroglycerin





FiO2	Fraction of inspired oxygen
02	Oxygen
N2O	Nitrous oxide
ETT	Endotracheal Tube.
SGD	Supraglottic device
LA	Lateral
PEEP	Positive end-expiratory pressure
OPD	Outpatient Department
CSE	combined spinal-epidural
NPO	Nil by mouth

#### Appendix 2- Reference documents

- **1.** List of Surgeries- <u>Types of Surgery Google Sheets</u>
- **2.** List of Complications (OT Part F- Post Operative Complications)- <u>List of Post Op Complications.xlsx</u> <u>Google Sheets</u>