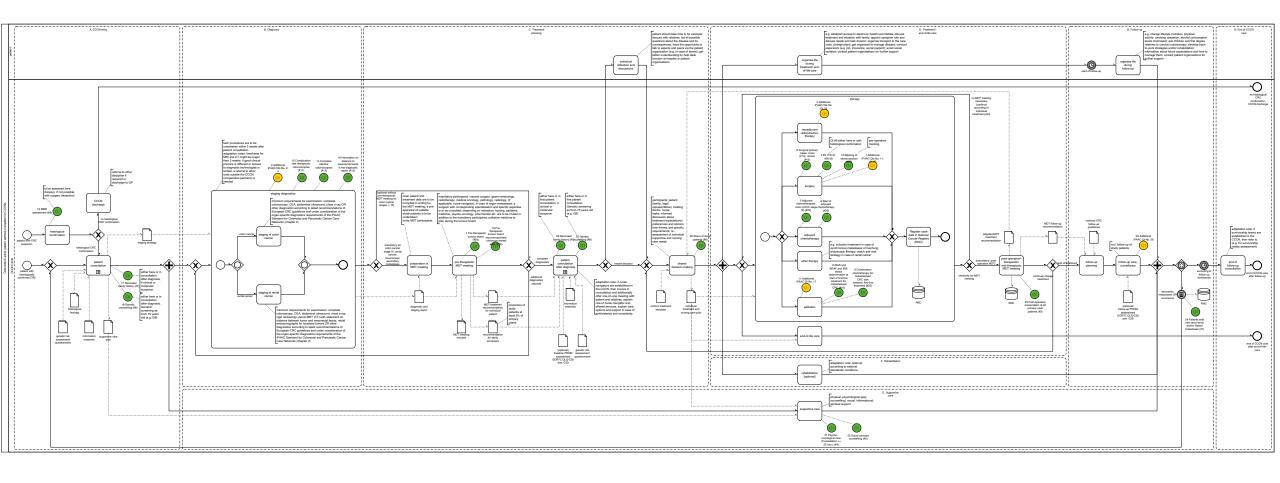


## **Colorectal Cancer Patient Pathway**







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## **GLOSSARY**

BRAF	V-Raf Murine Sarcoma Viral Oncogene Homolog B1
CCCN	Comprehensive Cancer Care Networks
CEA	Carcinoembryonic Antigen
CRC	Colorectal cancer
CrCC	Colorectal Cancer Center
CRM	Circumferential Resection Margin
СТ	Computerized Tomography
DKG	Deutsche Krebsgesellschaft
ECOG	Eastern Cooperative Oncology Group
EORTC	European Organisation for Research and Treatment of Cancer
GP	General Practitioner
INC	National Cancer Institute
iPAAC	Innovative Partnership for Action Against Cancer
KRAS	Kirsten Rat Sarcoma Virus
MDT	Multidisciplinary Team Meeting
MMR	MisMatch Repair
MRI	Magnetic Resonance Imaging
MRT	Magnetic resonance therapy
MSI	Microsatellite Instability
MTB	Molecular Tumor Board
NRAS	Neuroblastoma Rat Sarcoma
PROM	Patient reported outcomes measures
QI	Quality indicator
QLQ	Quality of Life Questionnaire
RAS	Rat Sarcoma
RNC	National Cancer Registry
R0	Negative margin resection
TME	Total Mesorectal Excision
UICC	Union for International Cancer Control
US	Ultrasound





# 1. Stages & Actors

### 1.1. Stages

Stage	Actors involved
A. CCCN entry	
B. Diagnosis	Anatomo-pathologist, Biologist, Case manager, Dietitian, Emergency caregiver, Emergency physician, Foundations, Gastroenterologist, General practitioner, Medical oncologist, Molecular geneticist/ oncology genetic counselling, Nurse specialized in oncology, Onco-geriatrician, Pathologist, Patient support groups, Psychologist, Radiologist/ Nuclear Medicine, Social worker, Stoma therapist, Surgeon
C. Treatment planning	Aesthetician, Anatomo-pathologist, Anesthetist, Case manager, Dietitian, Gastroenterologist, Medical oncologist, Nurse specialized in oncology, Onco-geriatrician, Pain specialist, Psychologist, Social worker, Stoma therapist, Surgeon
D. Treatment I end-of-life care	Anesthetist, Case manager, Dietitian, Foundations, Gastroenterologist, General practitioner, Hospital pharmacist, Medical oncologist, Nurse specialized in oncology, Onco-geriatrician, Oncology care team, Organ specialist doctor, Pain specialist, Palliative care nurse, Palliative care team, Patient support groups, Physiotherapist, Psychologist, Radiotherapist, Social worker, Socio-aesthetician, Specialist in palliative care, Specialist in post-oncology rehabilitation, Spiritual guidance, Stoma therapist, Surgeon, Volunteers, Work medicine
E. Supportive care	Dietitian, Pain specialist, Physiotherapist, Psychologist, Social worker, Socio-aesthetician, Spiritual guidance
F. Rehabilitation	Case manager, Dietitian, Foundations, Gastroenterologist, General practitioner, Medical oncologist, Nurse specialized in oncology, Oncogeriatrician, Patient support groups, Psychologist, Radiologist/ Nuclear Medicine, Social worker, Socio-aesthetician, Specialist in post-oncology rehabilitation, Stoma therapist, Surgeon, Work medicine
G. Follow-up	Anesthetist, Case manager, Dietitian, Foundations, Gastroenterologist, General practitioner, Medical oncologist, Nurse specialized in oncology, Onco-geriatrician, Organ specialist doctor, Patient support groups, Psychologist, Radiologist/ Nuclear Medicine, Social worker, Socioaesthetician, Specialist in palliative care, Specialist in post-oncology rehabilitation, Stoma therapist, Surgeon, Work medicine
H. End of CCCN care	





### 1.2. Actors. 1/2

Actor	Stages involved
Aesthetician	C. Treatment planning
Anatomo-pathologist	B. Diagnosis, C. Treatment planning
Anesthetist	C. Treatment planning, D. Treatment I end-of-life care, G. Follow-up
Biologist	B. Diagnosis
Case manager	B. Diagnosis, C. Treatment planning, D. Treatment I end-of-life care, F. Rehabilitation, G. Follow-up
Dietitian	B. Diagnosis, C. Treatment planning, D. Treatment I end-of-life care, E. Supportive care, F. Rehabilitation, G. Follow-up
Emergency caregiver	B. Diagnosis
Emergency physician	B. Diagnosis
Foundations	B. Diagnosis, D. Treatment I end-of-life care, F. Rehabilitation, G. Follow-up
Gastroenterologist	B. Diagnosis, C. Treatment planning, D. Treatment I end-of-life care, F. Rehabilitation, G. Follow-up
General practitioner	B. Diagnosis, D. Treatment I end-of-life care, F. Rehabilitation, G. Follow-up
Hospital pharmacist	D. Treatment I end-of-life care
Medical oncologist	B. Diagnosis, C. Treatment planning, D. Treatment I end-of-life care, F. Rehabilitation, G. Follow-up
Molecular geneticist/ oncology genetic counselling	B. Diagnosis
Nurse specialized in oncology	B. Diagnosis, C. Treatment planning, D. Treatment I end-of-life care, F. Rehabilitation, G. Follow-up
Onco-geriatrician	B. Diagnosis, C. Treatment planning, D. Treatment I end-of-life care, F. Rehabilitation, G. Follow-up
Oncology care team	D. Treatment I end-of-life care
Organ specialist doctor	D. Treatment I end-of-life care, G. Follow-up





#### 1.2. Actors. 2/2

Actor	Stages involved
Pain specialist	C. Treatment planning, D. Treatment I end-of-life care, E. Supportive care
Palliative care nurse	D. Treatment I end-of-life care
Palliative care team	D. Treatment I end-of-life care
Pathologist	B. Diagnosis
Patient support groups	B. Diagnosis, D. Treatment I end-of-life care, F. Rehabilitation, G. Follow-up
Physiotherapist	D. Treatment I end-of-life care, E. Supportive care
Psychologist	B. Diagnosis, C. Treatment planning, D. Treatment I end-of-life care, E. Supportive care, F. Rehabilitation, G. Follow-up
Radiologist/ Nuclear Medicine	B. Diagnosis, F. Rehabilitation, G. Follow-up
Radiotherapist	D. Treatment I end-of-life care
Social worker	B. Diagnosis, C. Treatment planning, D. Treatment I end-of-life care, E. Supportive care, F. Rehabilitation, G. Follow-up
Socio-aesthetician	D. Treatment I end-of-life care, E. Supportive care, F. Rehabilitation, G. Follow-up
Specialist in palliative care	D. Treatment I end-of-life care, G. Follow-up
Specialist in post-oncology rehabilitation	D. Treatment I end-of-life care, F. Rehabilitation, G. Follow-up
Spiritual guidance	D. Treatment I end-of-life care, E. Supportive care
Stoma therapist	B. Diagnosis, C. Treatment planning, D. Treatment I end-of-life care, F. Rehabilitation, G. Follow-up
Surgeon	B. Diagnosis, C. Treatment planning, D. Treatment I end-of-life care, F. Rehabilitation, G. Follow-up
Volunteers	D. Treatment I end-of-life care
Work medicine	D. Treatment I end-of-life care, F. Rehabilitation, G. Follow-up





# 2. Quality Indicators

2.1 Pre-therapeutic tumour board (#2a)		
Name	Pre-therapeutic tumour board (#2a)	
Documentation	iPAAC Indicator No. 6	
Numerator	Patients of the denominator presented at an interdisciplinary tumour board before therapy	
Denumerator	"Elective" patients with rectal carcinoma and "elective" all patients with stage IV colon carcinoma	

#### 2.2 Additional iPAAC Qls No. 2,4

Name	Additional iPAAC QIs No. 2, 4
Documentation	iPAAC QI No. 2: Preoperative abdominal and pelvic CT - colorectal cancer iPAAC QI No. 4: CEA blood test - colon cancer

### 2.3 Adjuvant chemotherapies: colon (UICC stage III) (#24)

Name	Adjuvant chemotherapies: colon (UICC stage III) (#24)	
Documentation	iPAAC Indicator No. 25	
Numerator	Patients of the denominator who received adjuvant chemotherapy	
Denumerator	Patients <= 75 years with a UICC stage III colon carcinoma who had a R0 resection of the primary tumour	





#### 2.4 #9, #16-21, #26-28

Name #9, #16-21, #26-28

Documentation #9: MMR assessment (iPAAC QI No. 5)

#16: Revision surgery: colon (iPAAC QI No. 9) #17: Revision Surgery: rectum (iPAAC QI No. 10) #18: Anastomotic insufficiency: colon (iPAAC QI No. 14) #19: Anastomotic insufficiency: rectum (iPAAC QI No. 15)

#20: Post-operative mortality (iPAAC QI No. 16) #21: Local R0 resections: rectum (iPAAC QI No. 12)

#26: Quality of the TME rectum specimen (information from pathology) (iPAAC QI No. 19) #27: Diagnostic report after surgical resection of colorectal carcinoma (iPAAC QI No. 21)

#28: Lymph node examination (iPAAC QI No. 18)

#### 2.5 Additional iPAAC Qls No. 22, 23

Name Additional iPAAC Qls No. 22, 23

Documentation iPAAC QI No. 22: Neoadjuvant radiotherapy/radiochemotherapy stage II-III - rectal cancer

iPAAC QI No. 23: Neoadjuvant radio-chemotherapy because of a threatened/involved CRM on preoperative MRI - rectal cancer

#### 2.6 Surgical primary cases: colon (#14), rectum (#15)

Name Surgical primary cases: colon (#14), rectum (#15)

#### 2.7 Additional iPAAC Qls No. 11, 13, 20

Name Additional iPAAC Qls No. 11, 13, 20

Documentation iPAAC QI No. 11: Local R0 resections - colon cancer

iPAAC QI No. 13: Post-operative wound infection - colorectal cancer iPAAC QI No. 20: Distal tumor-free margin - colorectal cancer





2.8 Start of	adj	uvant c	hemot	herapy	/ (#29)
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Name Start of adjuvant chemotherapy (#29)

Documentation iPAAC Indicator No. 24

Numerator As often as possible start of adjuvant chemotherapy within the stipulated period

Denumerator Patients with UICC stage III colon carcinoma who had received adjuvant chemotherapy (= numerator of indicator 24)

#### 2.9 Combination chemotherapy for metastasised CRC with systemic fist-line treatment (#25)

Name Combination chemotherapy for metastasised CRC with systemic first-line treatment (#25)

Documentation Patients of the denominator with combination chemotherapy

Denumerator Patients with metastasised colorectal carcinoma, ECOG 0-1 and systemic first-line chemotherapy

#### 2.10 RAS and BRAF and MSI statuts determination at start of first-line treatment for metastasised CRC (#10)

Name RAS and BRAF and MSI status determination at start of first-line treatment for metastasised CRC (#10)

Numerator Patients of the denominator with determination RAS (= KRAS and NRAS mutations) and BRAF mutation at the start of first-line treatment

Denumerator Patients with metastasised colorectal carcinoma and first-line treatment

#### 2.11 Additional iPAAC QI No. 17

Name Additional iPAAC QI No. 17

Documentation iPAAC QI No. 17: Primary resection of liver metastases - colorectal cancer





#### 2.12 Marking of stoma position (#22)

Name Marking of stoma position (#22)

#### 2.13 MMR assessment (#9)

NameMMR assessment (#9)DocumentationiPAAC Indicator No. 5NumeratorPatients of the denominator with immunohisto-chemical assessment of mismatch repair (MMR) proteins.DenumeratorPatients with initial colorectal carcinoma diagnosis < 50 years old</td>

#### 2.14 Complete elective colonoscopies (#12)

Name Complete elective colonoscopies (#12)

Documentation iPAAC Indicator No. 3

Numerator Elective colonoscopies of the denominator which were completed

Denumerator Elective colonoscopies for each colonoscopy unit of the CrCC (not only CrCC patients) (are counted: intention: complete colonoscopy)

#### 2.15 Complication rate therapeutic colonoscopies (#11)

Name Complication rate therapeutic colonoscopies (#11)

Numerator Colonoscopies of the denominator with complications (bleeding requiring re-intervention (recolonoscopy, operation) or a transfusion and/or perforation)

Denumerator Therapeutic colonoscopies with loop polypectomy per colonoscopy unit (not only CrCC patients)





2.16 Information on distance to mesorecta fascia in the diagnostic report (#13)
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Name	Information on distance to mesorectal fascia in the diagnostic report (#13)
Documentation	iPAAC Indicator No. 1
Numerator	Patients of the denominator with information on distance to mesorectal fascia in the diagnostic report
Denumerator	Patients with rectal carcinoma of the middle and lower third and MRI or thin slice CT of the pelvis

## 2.17 Recorded family history (#7)

Name	Recorded family	history (	(#7)

Numerator Primary-case patients in the denominator with a completed patient questionnaire

Denumerator Total primary cases

#### 2.18 Genetic counselling (#8)

Name Genetic counselling (#8)

Numerator Primary-case patients of the denominator advised to seek genetic counselling

Denumerator Primary cases with a positive patient questionnaire

#### 2.19 Pre-therapeutic tumour board: recurrences/meta-chronous metastases (#2b)

Name	Pre-therapeutic tumour board: recurrences/meta-chronous metastases (#2b)	
Documentation	iPAAC Indicator No. 7	
Numerator	Patients of the denominator presented at the pre-therapeutic tumour board	
Denumerator	Patients with new recurrence and/or distant metastases (= Indicator #1)	





#### 2.20 Share of study patients (#6)

Name Share of study patients (#6)

Numerator Patients of the CrCC included in a study or colorectal prevention study

Denumerator Total primary cases

# 2.21 Psycho-oncological care (Consultation >= 25 min.) (#4)

Name Psycho-oncological care (Consultation >= 25 min.) (#4)

Numerator Patients of the denominator who received psycho-oncological care in an inpatient or outpatient setting (duration of consultation >= 25 min)

Denumerator Total primary cases + patients with new recurrence and/or metastases (= Indicator 1)

#### 2.22 Social services counselling (#5)

Name Social services counselling (#5)

Numerator Patients of the denominator who received counselling by social services in an inpatient or outpatient setting

Denumerator Total primary cases + patients with new recurrence and/or metastases (= Indicator 1)

#### 2.23 Additional iPAAC QI No. 26

Name Additional iPAAC QI No. 26

Documentation iPAAC QI No. 26: Liver CT or US evaluation within 12 months - colorectal cancer

#### 2.24 Patients with new recurrence and/or distant metastases (#1)

Name Patients with new recurrence and/or distant metastases (#1)

Text Patients with new recurrence and/or distant metastases





Name Post-operative presentation of all primary-case patients (#3)

Documentation iPAAC Indicator No. 8

Numerator Primary cases of the denominator presented at the post-operative tumour board

Denumerator Surgical and endoscopic primary cases

#### 2.26 Recorded family history (#7)

Name Recorded family history (#7)

Numerator Primary-case patients in the denominator with a completed patient questionnaire

Denumerator Total primary cases

#### 2.27 Genetic counselling (#8)

Name Genetic counselling (#8)

Numerator Primary-case patients of the denominator advised to seek genetic counselling

Denumerator Primary cases with a positive patient questionnaire





## 3. References

- [1] Certification criteria of the Deutsche Krebsgesellschaft (DKG) (https://www.onkozert.de/en/organ/colorectal/)
- [2] The national concept of Multidisciplinary Tumour Boards (MDT) (https://plancancer.files.wordpress.com/2016/05/concept-rcp-signc3a9-ministre-2016-05-13.pdf)
- [3] The recommendations of the INC on the composition and organization of MTB
- [4] To be precised further in line with the national recommendations to be put in place
- [5] National guideline for colorectal cancer
- [6] iPAAC Standard for Colorectal and Pancreatic Cancer Care Networks (https://www.ipaac.eu/res/file/outputs/wp10/cccn-standard-colorectal-pancreatic-cancer.pdf)



## **Colorectal Cancer Patient Pathway**



