

Systemic Anti-cancer therapy for Radiation Oncology

Job Aid

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1. Colorectal						
1.1 Anal						
Mitomycin and fluorouracil (5-FU) (link to eviQ protocol)				Considerations for RT		
Drug information				Radiotherapy scheduling Patients should start their radiation therapy course on the same day as their chemotherapy (day 1 is the same for both treatments). Facilities may consider prioritising the delivery of 5 fractions in the weeks that 5-FU is being administered (week 1 and 5).		
Drug	Route	Treatment schedule				
Mitomycin	IV infusion over 15 minutes (1 day)	Day 1 (week 1 RT)		Safety Patients will have a pump containing fluorouracil during weeks 1 and 5 of radiotherapy. Safe handling precautions may be required for up to 7 days following the completion of each chemotherapy administration. Ensure staff are aware of safe handling precautions and hazardous waste management procedures.		
Fluorouracil (5-FU)	CIV infusion via pump over 96 hours (4 days)	Day 1 – 5 (week 1 RT) Day 29 – 33 (week 5 RT)				
Cycles: 1 with concurrent radiotherapy				Side effects Staff should be aware of potential treatment-related side effects .		
Treatment schema						
Week	1	2	3	4	5	6
RT	Fx1-5	Fx6-10	Fx11-15	Fx16-20	Fx21-25	Fx26-28/30
Mitomycin	Day 1					
5-FU	Day 1-5				Day 29-33	
Approximate SACT treatment time 30 minutes				Considerations for RT		
ciSplatn and fluorouracil (5-FU) (link to eviQ protocol)						
Drug information				Radiotherapy scheduling Patients should start their radiation therapy course on the same day as their chemotherapy treatment (day 1 is the same for both treatments). Facilities may consider prioritising the delivery of 5 fractions in the weeks that 5-FU is being administered (week 1 and week 5).		
Drug	Route	Treatment schedule				
ciSplatn	IV infusion over 60 minutes (1 day)	Day 1 & Day 29 (week 1 and week 5 RT)		Safety Patients will have a pump containing fluorouracil during weeks 1 and 5 of radiotherapy. Safe handling precautions may be required for up to 7 days following the completion of each chemotherapy administration. Ensure staff are aware of safe handling precautions and hazardous waste management procedures.		
Fluorouracil (5-FU)	CIV infusion via pump over 96 hours (4 days)	Day 1 – 5 (week 1 RT) Day 29 – 33 (week 5 RT)				
Cycles: 1 with concurrent radiotherapy				Side effects Staff should be aware of potential treatment-related side effects .		
Treatment schema						
Week	1	2	3	4	5	6
RT Fx	Fx1-5	Fx6-10	Fx11-15	Fx16-20	Fx21-25	Fx26-28/30
Cisplatin	Day 1				Day 29	
5-FU	Day 1-5				Day 29-33	
Approximate SACT treatment time Days 1 & 29 (infusion and pump connection): 4 hours Days 5 & 33 (pump disconnection): 30 mins						

1.2 Rectum (post-operative or pre-operative)

Fluorouracil (protracted infusion) ([link to eviQ protocol](#))

Drug information

Drug	Route	Treatment schedule
Fluorouracil (5-FU)	CIV infusion via pump over 7 days	Continuous with concurrent radiotherapy - i.e. – The patient is on chemotherapy for the length of radiotherapy and the pump is changed each week.

Frequency: 7 days

Cycles: continuous with concurrent radiotherapy (usually 5 – 6 weeks)

Treatment schema

Week	1	2	3	4	5	6
RT Fx	Fx1-5	Fx6-10	Fx11-15	Fx16-20	Fx21-25	Fx26-28/30
5-FU	Day 1-7	Day 1-7	Day 1-7	Day 1-7	Day 1-7	Day 1-7

Approximate SACT treatment time

30 minutes

Capecitabine ([link to eviQ protocol](#))

Drug information

Drug	Route	Treatment schedule
Capecitabine	Administered orally as a tablet, twice a day.	Drug should be taken for the length of radiotherapy. May be taken every day or only on days 1-5 of each week (Mon-Friday) Patients may self-administer.

Frequency: 7 days or days 1 to 5

Cycles: Continuous with radiotherapy (usually 5 – 6 weeks)

Treatment schema

Week	1	2	3	4	5	6
RT Fx	Fx1-5	Fx6-10	Fx11-15	Fx16-20	Fx21-25	Fx26-28/30
Capecitabine	Day 1-5 or 1-7	Day 1-5or 1-7	Day 1-5or 1-7	Day 1-5 or 1-7	Day 1-5 or 1-7	Day 1-5 or 1-7

Considerations for RT

Radiotherapy scheduling

Patients should start their radiation therapy course on the same day as their chemotherapy treatment (day 1 is the same for both treatments).

Safety

Patients will have a [pump](#) connected for the whole course of radiotherapy. Ensure staff are aware of [safe handling](#) precautions and hazardous waste management procedures.

Side effects

Staff should be aware of potential treatment-related [side effects](#).

Considerations for RT

Radiotherapy scheduling

Patients who are prescribed concurrent capecitabine should have written instructions from their oncology team on how to take them. Ensure patients understand how and when to take their chemotherapy. Usually, chemotherapy is commenced on the same day as RT (day 1 is the same for both treatments).

Safety

Patients will be receiving chemotherapy for the whole course of radiotherapy. Safe handling precautions may be required for up to 7 days following the completion of each chemotherapy administration. Ensure staff are aware of [safe handling](#) precautions and hazardous waste management procedures.

Side effects

Staff should be aware of potential treatment-related [side effects](#).

2. Bladder							
Mitomycin and Fluorouracil (link to eviQ protocol)				Considerations for RT			
Drug information							
Drug	Route			Treatment schedule			
Mitomycin	IV infusion over 15 minutes (1 day)			Day 1 (week 1 RT)			
Fluorouracil (5-FU)	CIV infusion via pump over 120 hours (5 days)			5-FU is administered with fractions 1-5 (week 1) and 16-20 (week 4) of radiotherapy.			
Cycles: 1 with concurrent radiotherapy							
Treatment schema							
Week	1	2	3	4	5	6	7
RT	Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-25	Fx 26-30	Fx 31-32
Mitomycin	Day 1						
5-FU	Day 1-5			Day 22-26			
Approximate SACT treatment time 30 minutes for mitomycin							
cisplatin (link to eviQ protocol)				Considerations for RT			
Drug information							
Drug	Route			Treatment schedule			
ciSPlatin	IV infusion over 60 minutes (1 day)			Cisplatin is administered day 1 or 2 of each week of radiotherapy.			
Frequency: 7 days							
Cycles: up to 6 cycles, concurrent with radiotherapy							
Treatment schema							
Week	1	2	3	4	5	6	7
RT	Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-25	Fx 26-30	Fx 31-32
Cisplatin	Day 1 or 2	Day 1 or 2	Day 1 or 2	Day 1 or 2	Day 1 or 2	Day 1 or 2	Day 1 or 2
Approximate SACT treatment time 3 hours							
Radiotherapy scheduling							
Patients should start their radiation therapy course on the same day as their chemotherapy treatment (day 1 is the same for both treatments). Facilities may consider prioritising the delivery of 5 fractions in the weeks that 5-FU is being administered (week 1 and week 4).							
Safety							
Patients will have a pump containing 5-FU connected week 1 and week 4 of radiotherapy. Safe handling precautions may be required for up to 7 days following the completion of each chemotherapy administration. Ensure staff are aware of safe handling precautions and hazardous waste management procedures.							
Side effects							
Staff should be aware of potential treatment-related side effects .							
Radiotherapy scheduling							
cisplatin should be given on day 1 or 2 of each week of radiotherapy. Week 1 should be the same for both treatments. cisplatin must be given before radiotherapy treatment on treatment days. Radiotherapy should be commenced approximately 2 hours after cisplatin infusion is completed.							
Safety							
Ensure staff are aware of safe handling precautions and hazardous waste management procedures.							
Side effects							
Staff should be aware of potential treatment-related side effects .							

3. Cervix						
cisplatin (link to eviQ protocol)				Considerations for RT		
Drug information						
Drug	Route		Treatment schedule			
ciSplatin	IV infusion over 60 minutes (1 day)		ciSplatin is administered day 1 of each week.			
Frequency: 7 days						
Cycles: concurrent with radiotherapy (usually 5 or 6 cycles)						
Treatment schema						
Week	1	2	3	4	5	6
RT	Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-25	Fx 26-28
ciSplatin	Day 1	Day 1	Day 1	Day 1	Day 1	Day 1
Approximate SACT treatment time						
2.5 hours						
				Radiotherapy scheduling		
				Patients should start their radiation therapy course on the same day as their chemotherapy treatment (day 1 is the same for both treatments). On chemotherapy days cisplatin must be given before radiotherapy treatment. Radiotherapy should be commenced approximately 2 hours after cisplatin infusion is completed.		
				Safety		
				Patients will be receiving chemotherapy for the whole course of radiotherapy. Safe handling precautions may be required for up to 7 days following the completion of each chemotherapy administration. Ensure staff are aware of safe handling precautions and hazardous waste management procedures.		
				Side effects		
				Staff should be aware of potential treatment-related side effects .		

4. Brain						
Temozolomide (link to eviQ protocol)				Considerations for RT		
Drug information						
Drug	Route		Treatment schedule			
Temozolomide	Administered orally as a capsule, once per day.		Drug should be taken from the first until the last day of RT, including weekends. Patients may self-administer.			
Frequency: 42 days						
Cycles: concurrent with radiotherapy (usually 6 weeks)						
Treatment schema						
Week	1	2	3	4	5	6
RT	Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-25	Fx 26-30
Temozolomide	Continuously whilst receiving radiotherapy					
				Radiotherapy scheduling		
				Ensure patients who are taking oral chemotherapy know to start taking their medication on the same day that they start RT.		
				Safety		
				Patients may be receiving chemotherapy for the course of radiation therapy. Safe handling precautions may be required for up to 7 days following the completion of chemotherapy. Ensure staff are aware of safe handling precautions and hazardous waste management procedures.		
				Side effects		
				Staff should be aware of potential treatment-related side effects .		

5. Head and Neck								
ciSPlatin (weekly or three weekly)								
Drug information								
Drug	Route		Treatment schedule					
ciSPlatin	IV infusion over 60 minutes (1 day)		Administered day 1 of a 7 or 21 day cycle. (once per week or once every 3 weeks)					
Frequency: 7 days or 21 days								
Cycles: up to 8 cycles (7 day frequency) or 3 cycles (21 day frequency)								
Treatment schema (7 day frequency)								
Week	1	2	3	4	5	6	7	
RT	Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-25	Fx 26-30	Fx 31-35	
Cisplatin	Day 1	Day 1	Day 1	Day 1	Day 1	Day 1	Day 1	
Treatment schema (21 day frequency)								
Week	1	2	3	4	5	6	7	
RT	Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-25	Fx 26-30	Fx 31-35	
Cisplatin	Day 1			Day 1			Day 1	
Approximate SACT treatment time								
4 hours								
Considerations for RT								
Radiotherapy scheduling								
Patients should start their radiation therapy course on the same day as their chemotherapy treatment (day 1 is the same for both treatments).								
Safety								
Ensure staff are aware of safe handling precautions and hazardous waste management procedures.								
Side effects								
Staff should be aware of potential treatment-related side effects:								
<ul style="list-style-type: none"> - Weekly cisplatin - Three weekly cisplatin 								
Cetuximab (link to eviQ protocol)								
Drug information								
Cetuximab is a targeted therapy								
Drug	Route		Treatment schedule					
Cetuximab	IV infusion over 60 minutes (1 day)		Administered day 1 of each week for the length of radiotherapy (a loading dose is administered 1 week prior to beginning RT)					
Frequency: 7 days								
Cycles: cycle 1 is administered 1 week prior to starting radiotherapy, following cycles are concurrent with radiotherapy								
Treatment schema								
Week	1	2	3	4	5	6	7	8
RT		Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-25	Fx 26-30	Fx 31-35
Cetuximab	Day 1 (loading dose)	Day 1	Day 1	Day 1	Day 1	Day 1	Day 1	Day 1
Approximate SACT treatment time								
Loading dose: 4 hours								
Remaining cycles: 3 hours								
Considerations for RT								
Radiotherapy scheduling								
Radiotherapy should be scheduled to commence on the same day that cycle 2 is administered (1 week after first 'loading' dose).								
Safety								
Ensure staff are aware of safe handling precautions and hazardous waste management procedures.								
Side effects								
Staff should be aware of potential treatment-related side effects .								

cARBOplatin (link to eviQ protocol)								Considerations for RT
Drug information								Radiotherapy scheduling Patients will receive induction chemotherapy prior to concurrent chemotherapy and radiotherapy (chemoradiation). Chemoradiation should commence 3-4 weeks after induction chemotherapy. For chemoradiation, patients should start their radiation therapy course on the same day as their chemotherapy treatment (day 1 is the same for both treatments). Safety Ensure staff are aware of safe handling precautions and hazardous waste management procedures. Side effects Staff should be aware of potential treatment-related side effects .
Drug	Route	Treatment schedule						
cARBOplatin	IV infusion (1 day)	Administered day 1 of each week for 6 weeks.						
Frequency: 7 days Cycles: 6 cycles with concurrent radiotherapy								
Treatment schema								
Week	1	2	3	4	5	6	7	
RT	Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-25	Fx 26-30	Fx 31-35	
Carboplatin	Day 1	Day 1	Day 1	Day 1	Day 1	Day 1		
Approximate SACT treatment time 90 minutes								
cARBOplatin and Fluorouracil (link to eviQ protocol)								Considerations for RT
Drug information								Radiotherapy scheduling Patients should start their radiation therapy course on the same day as their chemotherapy treatment (day 1 is the same for both treatments). Facilities may consider prioritising the delivery of 5 fractions in the weeks that 5-FU is being administered (week 1, week 4 and week 7). Safety Patients will have a pump containing 5-FU connected week 1, 4 and 7 of radiotherapy treatment. Ensure staff are aware of safe handling precautions and hazardous waste management procedures. Side effects Staff should be aware of potential treatment-related side effects .
Drug	Route		Treatment schedule					
cARBOplatin	IV infusion (1 day)		Administered day 1 of a 21 day cycle (week 1, 4, 7 or RT)					
Fluorouracil (5-FU)	CIV infusion via pump 96 hours (4 days)		Day 1 – 5 (week 1 RT) Day 1 – 5 (week 4 RT) Day 1 – 5 (week 7 RT)					
Frequency: 21 days Cycles: 3 cycles with concurrent radiotherapy								
Treatment schema								
Week	1	2	3	4	5	6	7	
RT	Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-25	Fx 26-30	Fx 31-35	
Carboplatin	Day 1			Day 1			Day 1	
5-FU	Day 1-5			Day 1-5			Day 1-5	
Approximate SACT treatment time Day 1 (pump connection and carboplatin infusion) : 90 minutes Day 5 (pump disconnection): 30 minutes								

6. Upper gastrointestinal

6.1 Gastric and oesophageal

ciSPlatin and capecitabine ([link to eviQ protocol](#))

Drug information

Drug	Route	Treatment schedule
Cisplatin	IV infusion over 60 minutes (1 day)	Administered before and after the course of radiotherapy
Capecitabine	Administered orally, as a tablet, twice per day	Administered before, during and after the course of radiotherapy. During radiotherapy, taken on radiotherapy days (usually for 5 weeks.) Patients may self-administer.

Frequency (Capecitabine, during RT): radiotherapy days

Cycles (Capecitabine, during RT): 2 cycles with concurrent radiotherapy

Treatment schema

Week	1-6	7	8	9	10	11	Post RT
RT		Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-25	
Cisplatin	2 cycles						2 cycles
Capecitabine	2 cycles	Day 1-5	Day 1-5	Day 1-5	Day 1-5	Day 1-5	2 cycles

Considerations for RT

Radiotherapy scheduling

Patients should have received 2 cycles (6 weeks) of cisplatin and capecitabine prior to starting radiotherapy.

Ensure patients who are taking oral chemotherapy know to start taking their medication on the same day that they start RT. **Safety**

Patients will be receiving chemotherapy for the length of radiotherapy. Ensure staff are aware of [safe handling](#) precautions and hazardous waste management procedures.

Side effects

Staff should be aware of potential treatment-related [side effects](#).

6.2 Gastrointestinal oesophageal

Cisplatin and fluorouracil (5-FU) (definitive chemoradiation) ([link to eviQ protocol](#))

Drug information

Drug	Route	Treatment schedule
Cisplatin	IV infusion over 60 minutes (1 day)	Day 1 of weeks 1, 5, 8 and 11
5-FU	CIV infusion via pump 96 hours (4 days)	Day 1 – 5 (week 1 RT) Day 1 – 5 (week 5 RT) Day 1 – 5 (week 8 – 3 weeks post RT) Day 1-5 (week 11 – 6 weeks post RT)

Delivered weeks 1 and 5 of RT and then week 8 and week 11 (post RT)

Treatment schema

Week	1	2	3	4	5	6	Post RT
RT	Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-25	Fx 26-28	
Cisplatin	Day 1				Day 1		Day 1, week 8 & 11
5-FU	Day 1-5				Day 1-5		Day 1-5, week 8 & 11

Approximate SACT treatment times

Day 1, week 1 & 5: 4 hours

Day 5, week 1 & 5 (pump disconnection): 30 minutes

Considerations for RT

Radiotherapy scheduling

Patients should start their radiation therapy course on the same day as their chemotherapy treatment (day 1 is the same for both treatments).

Safety

Patients will have a [pump](#) connected week 1 and week 5 of radiotherapy treatment. Ensure staff are aware of [safe handling](#) precautions and hazardous waste management procedures.

Side effects

Staff should be aware of potential treatment-related [side effects](#).

Cisplatin and fluorouracil (neoadjuvant chemoradiation) (link to eviQ protocol)						Considerations for RT
Drug information						Radiotherapy scheduling Patients should start their radiation therapy course on the same day as their chemotherapy treatment (day 1 is the same for both treatments). Safety Patients will have a pump connected week 1 and week 5 of radiotherapy treatment. Ensure staff are aware of safe handling precautions and hazardous waste management procedures. Side effects Staff should be aware of potential treatment-related side effects .
Drug	Route	Treatment schedule				
Cisplatin	IV infusion (1 day)	Day 1 of a 28 day cycle (weeks 1 and 5 of RT)				
5-FU	CIV infusion via pump 96 hours (4 days)	Connected Day 1 and disconnected day 5 of each 28 day cycle. Day 1 – 5 (week 1 RT) Day 1 – 5 (week 5 RT)				
Frequency: 28 days Cycles: 2 with concurrent radiotherapy Treatment schema						
Week	1	2	3	4	5	
RT	Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-23	
Cisplatin	Day 1				Day 1	
5-FU	Day 1-5				Day 1-5	
Approximate SACT treatment times Day 1, week 1 & 5: 4 hours Day 5, week 1 & 5 (pump disconnection): 30 minutes						
Carboplatin and paclitaxel (neoadjuvant chemoradiation) (link to eviQ protocol)						Considerations for RT
Drug information						Radiotherapy scheduling Patients should start their radiation therapy course on the same day as their chemotherapy treatment (day 1 is the same for both treatments). Safety Ensure staff are aware of safe handling precautions and hazardous waste management procedures. Side effects Staff should be aware of potential treatment –related side effects .
Drug	Route	Treatment schedule				
cARBOplatin	IV infusion (1 day)	Day 1 of a 7 day cycle, concurrent with radiotherapy (once per week for 5 weeks)				
PAclitaxel	IV infusion (1 day)	Day 1 of a 7 day cycle, concurrent with radiotherapy (once per week for 5 weeks)				
Frequency: 7 days Cycles: 5 with concurrent radiotherapy Treatment schema						
Week	1	2	3	4	5	
RT	Fx 1-5	Fx 6-10	Fx 11-15	Fx 16-20	Fx 21-23	
Carboplatin	Day 1	Day 1	Day 1	Day 1	Day 1	
Paclitaxel	Day 1	Day 1	Day 1	Day 1	Day 1	
Approximate SACT treatment times 2.5 hours						