Topotecan Monotherapy – Weekly[i]

INDICATIONS FOR USE:

INDICATION	ICD10	Regimen Code	HSE approved reimbursement status*
Treatment of patients with metastatic carcinoma of the ovary after failure of first-line or subsequent therapy	C56	00312a	N/A
Treatment of patients with metastatic carcinoma of the fallopian tubes after failure of first-line or subsequent therapy[i]	C57	00312b	N/A
Treatment of patients with metastatic peritoneal carcinoma after failure of first-line or subsequent therapy[i]	C48	00312c	N/A

* This applies to post 2012 indications

TREATMENT:

The starting dose of the drugs detailed below may be adjusted downward by the prescribing clinician, using their independent medical judgement, to consider each patient's individual clinical circumstances.

Topotecan is administered on days 1, 8 and 15 of a **28 day** cycle until disease progression or unacceptable toxicity develops, whichever occurs first.

Facilities to treat anaphylaxis MUST be present when systemic anti-cancer therapy (SACT) is administered.

Day	Drug	Dose	Route	Diluent & Rate	Cycle
1, 8 and 15	Topotecan	4mg/m^2	IV infusion	250mL NaCl[a] 0.9% over 30 minutes	Every 28 days

[a] Topotecan should be diluted to a final concentration of between 25 and 50 microgram/mL.

Note: Administration volumes and fluids have been standardised to facilitate electronic prescribing system builds.

ELIGIBILITY:

- Indications as above
- ECOG status 0-2*
- Adequate organ function; ANC > 1.5 x10^9 cells/L, platelets 100 x10^9/L

  **Selected patients with ECOG status 3 due to disease burden may be eligible at consultant discretion and with planned close monitoring for toxicity and clinical benefit and prophylactic GCSF support*

EXCLUSIONS:

- Hypersensitivity to topotecan or any of the excipients
- Breastfeeding

PRESCRIPTIVE AUTHORITY:

The treatment plan must be initiated by a Consultant Medical Oncologist

TESTS:

Baseline tests:

- FBC, renal and liver profile

Regular tests:

- FBC, renal and liver profile before each cycle

Disease monitoring:

Disease monitoring should be in line with the patient's treatment plan and any other test/s as directed by the supervising Consultant.

DOSE MODIFICATIONS:

- Any dose modification should be discussed with a Consultant.

Haematological:

G-CSF may be used to maintain neutrophil counts or dose reduction may be used as shown in table 1 for cycles 2-6

Table 1: Dose modification of topotecan in haematological toxicity

ANC ($x10^9$/L)		Platelets ($x10^9$/L)	Haemoglobin level	Dose
≥ 1	and	≥ 100	≥ 9 g/dl (after transfusion if necessary	100% Dose
0.5 to 0.99	and/or	<100	< 9g/dl	Delay treatment until recovery. Following recovery from neutropenia, consider dose reduction.
<0.5 for ≥ 7 days	and/or	< 25		Consider dose reduction.
Febrile neutropenia				
Neutropenia with infection				

Renal and Hepatic Impairment:

Table 2: Dose modification of topotecan in renal and hepatic impairment

Renal Impairment		Hepatic Impairment	
CrCl (mL/min)	**Dose**	**Bilirubin (micromol/L)**	**Dose**
≥40	No dose adjustment is needed	≤171	No need for dose adjustment is expected
20-39	50% of the original dose	>171	Not recommended
<20 Haemodialysis	Not recommended, if unavoidable consider 25% of the original dose		
Renal and hepatic recommendations: Giraud et al 2023			

Management of adverse events:

Table 3: Dose Modification of topotecan for Adverse Events

Adverse reactions	Recommended dose modification
Grade ≥ 3 (except nausea)	Decrease dose by 25%
Interstitial lung disease	Discontinue

SUPPORTIVE CARE:

EMETOGENIC POTENTIAL:

- As outlined in NCCP Classification Document for Systemic AntiCancer Therapy (SACT) Induced Nausea and Vomiting Available on the NCCP website

Topotecan: Low (**Refer to local policy).**

For information:
Within NCIS regimens, antiemetics have been standardised by the Medical Oncologists and Haemato-oncologists and information is available in the following documents:

- NCCP Supportive Care Antiemetic Medicines for Inclusion in NCIS (Medical Oncology) - Available on the NCCP website
- NCCP Supportive Care Antiemetic Medicines for Inclusion in NCIS (Haemato-oncology) - Available on the NCCP website

PREMEDICATIONS: None

OTHER SUPPORTIVE CARE:

- G-CSF may be required to mitigate the risk of haematological toxicities **(Refer to local policy).**

ADVERSE EFFECTS:

- Please refer to the relevant Summary of Product Characteristics (SmPC) for details.

DRUG INTERACTIONS:

- Current SmPC and drug interaction databases should be consulted for information.

REFERENCES:

1. Sehouli, J., D. Stengel, P. Harter, et al. 2011. Topotecan Weekly Versus Conventional 5Day Schedule in Patients with Platinum Resistant Ovarian Cancer: a randomized multicenter phase II trial of the North Eastern German Society of Gynecological Oncology Ovarian Cancer Study Group. J Clin Oncol 2011;29(2):242-248.
2. Giraud E L, Lijster B D, et al. Dose recommendations for anticancer drugs in patients with renal or hepatic impairment: an update. Available at: https://pubmed.ncbi.nlm.nih.gov/37269847/
3. NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting. V6 2025. Available at: https://www.hse.ie/eng/services/list/5/cancer/profinfo/chemoprotocols/nccp-classification-document-for-systemic-anti-cancer-therapy-sact-induced-nausea-and-vomiting.pdf

4. Topotecan (Hycamtin®) Summary of Product Characteristics. Last updated: 27/09/2024. Accessed March 2025. Available at: https://www.ema.europa.eu/en/documents/product-information/hycamtin-epar-product-information_en.pdf

Version	Date	Amendment	Approved By
1	04/04/2016		Prof Maccon Keane
2	18/04/2018	Updated with new NCCP regimen template, standardization of treatment table and dosing in renal and hepatic impairment	Prof Maccon Keane
3	29/04/2020	Regimen review	Prof Maccon Keane
4	15/07/2020	Update dose modifications for haematological toxicity	Prof Maccon Keane
5	16/04/2025	Regimen review. Eligibility section updated. Dose modifications in renal and hepatic impairment aligned to Giraud et al. Other supportive care section updated. Regimen updated in line with NCCP standardisation.	Prof Maccon Keane

Comments and feedback welcome at oncologydrugs@cancercontrol.ie.

[i] This is an unlicensed indication for the use of topotecan in Ireland.. Patients should be informed of the unlicensed nature of this indication and consented to treatment in line with the hospital's policy on the use of unlicensed medication and unlicensed or "off label" indications. Prescribers should be aware of their responsibility in communicating any relevant information to the patient and also in ensuring that the unlicensed or "off label" indication has been acknowledged by the hospital's Drugs and Therapeutics Committee, or equivalent, in line with hospital policy.