Oral etoposide (gynae)

Indication
Palliative treatment of advanced or relapsed ovarian, fallopian tube or primary peritoneal cancer, where platinum therapy is not appropriate.

ICD-10 codes
Codes pre-fixed with C48, 56 and 57.

Regimen details
Cycle 1

Day	Drug	Dose	Route
1-7	Etoposide	100mg OD OR 50mg BD	PO

Consider reducing dose to 50mg OD for 5-7 days if performance status ≥ 2.

For cycle 1, FBC is required on days 14 and 21. If both the nadir and pre-treatment blood counts are within standard limits for administration and other toxicities are well controlled, the duration of treatment may be increased to 14 days for subsequent cycles (however shorter durations may be used at the consultants discretion, such as 7 or 10 days).

Cycle 2-6

Day	Drug	Dose	Route
1-14*	Etoposide	100mg OD OR 50mg BD	PO

* see information above

Cycle frequency
21 days

Number of cycles
Maximum 6 cycles, as above.

Administration
Oral etoposide is available as 50mg and 100mg capsules. The dose should be swallowed whole, with a glass of water, on an empty stomach or an hour before food.

In the event that the patient cannot swallow capsules, etoposide injection can be taken orally (diluted with orange juice immediately prior to administration) at a dose of 70% of the usual oral capsule dose. (This is an unlicensed use based on medical information from Bristol- Myers Squibb).
Note: oral absorption of etoposide is variable.

Pre-medication
Nil

Emetogenicity
This regimen has low emetic potential.

Additional supportive medication
Mouthwash as per local policy

Extravasation
N/A

Investigations – pre first cycle

Investigation	Validity period
FBC	14 days
U+E (including creatinine)	14 days
LFTs	14 days
CA 125	28 days

Investigations – pre subsequent cycles

Investigation	Validity period
FBC*	96 hours
U+E (including creatinine)	7 days
LFTs	7 days

*In addition, for cycle 1, FBC is required on days 14 and 21, see above.

Standard limits for administration to go ahead
If blood results not within range, authorisation to administer **must** be given by prescriber/ consultant

Investigation	Limit
Neutrophils	≥1.5 x 10^9/L
Platelets	≥100 x 10^9/L
Creatinine clearance	> 50mL/min
Bilirubin	<1.5 x ULN
ALT/AST	<1.5 x ULN

Dose modifications
If a dose modification is required, the dosing schedule should be split to accommodate this, e.g. 50mg and 100mg on alternate days.

- ### Haematological toxicity

If neutrophils < 1.5 x 10^9/L or platelets < 100 x 10^9/L delay for 1 week.

If neutropenic sepsis, delay until recovery and then continue at 75% dose.

- ### Renal impairment

CrCl (mL/min)	**Etoposide dose**
>50	100%
15-50	75%
<15	Omit or further dose reduction – discuss with consultant

Formal measurement of renal function is recommended where possible and particularly if other co-morbidities exist which may affect renal function.

- **Hepatic impairment**

Bilirubin (x ULN)		**AST/ALT** (x ULN)	**Etoposide dose**
<1.5	and	< 1.5	100%
1.5-3.0	or	1.5-3.0	50%
>3.0	or	> 3.0	Omit (discuss with consultant)

- **Other toxicities**

If any grade 3 toxicity withhold treatment until ≤ grade 1 and then continue at 75% dose. If toxicity recurs discuss with consultant.

If any grade 4 toxicity withhold treatment and discuss with consultant.

If delays of more than 3 weeks or more than 2 dose reductions are required, discuss with consultant.

Adverse effects - for full details consult product literature/ reference texts

- **Serious side effects**

Myelosuppression
Hepatotoxicity

- **Frequently occurring side effects**

Myelosuppression
Constipation, diarrhoea
Stomatitis, mucositis
Alopecia
Nausea and vomiting

- **Other side effects**

Electrolyte disturbances
Fatigue
Alopecia

Significant drug interactions – for full details consult product literature/ reference texts

Warfarin/coumarin anticoagulants: increased or fluctuating anticoagulant effects. Avoid if possible, consider switching patient to a low molecular weight heparin or DOAC during treatment or if the patient continues taking an oral anticoagulant monitor the INR at least once a week and adjust dose accordingly.

Ciclosporin: May increase exposure to etoposide.

Phenytoin: May increase etoposide clearance and therefore reduce efficacy.

Phenylbutazone, sodium salicylate and aspirin: may displace etoposide from plasma protein binding

Additional comments

Nil

References

- Summary of Product Characteristics Etoposide (Accord) accessed 12 August 2021 via www.medicines.org.uk
- Hoskins PJ, Swenerton KD. Oral etoposide is active against platinum-resistant epithelial ovarian cancer. J Clin Oncol 1994 12: 60-63.
- Seymour MT, Mansi JL, Gallagher CJ, Gore ME, Harper PG, Evans TR, et al. Protracted oral etoposide in epithelial ovarian cancer: a phase II study in patients with relapsed or platinum resistant disease. Br J Cancer 1994 69 (1): 191-195.
- Rose PG, Blessing JA, Mayer AR, Homesley HD. Prolonged oral etoposide as second-line therapy for platinum -resistant and platinum -sensitive ovarian carcinoma: a Gynecologic Oncology Group study. J Clin Oncol 1998 16:405-410.

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