Regimen Monograph

Regimen Name | Drug Regimen | Cycle Frequency | Premedication and Supportive Measures | Administrative Information | References | Other Notes | Disclaimer

A - Regimen Name

EMA-CO Regimen

Etoposide-Methotrexate-Actinomycin (Dactinomycin)-Cyclophosphamide-ONCOVIN ® (VinCRIStine)

Disease Site	Gynecologic - Gestational Trophoblastic Disease (GTD)
Intent	Curative
Regimen Category	**Evidence-informed :** Regimen is considered appropriate as part of the standard care of patients; meaningfully improves outcomes (survival, quality of life), tolerability or costs compared to alternatives (recommended by the Disease Site Team and national consensus body e.g. pan-Canadian Oncology Drug Review, pCODR). Recommendation is based on an appropriately conducted phase III clinical trial relevant to the Canadian context OR (where phase III trials are not feasible) an appropriately sized phase II trial. Regimens where one or more drugs are not approved by Health Canada for any indication will be identified under Rationale and Use. This **Regimen Abstract** is an **abbreviated** version of a Regimen Monograph and contains only top level information on usage, dosing, schedule, cycle length and special notes (if available). Information in regimen abstracts is accurate to the extent of the ST-QBP regimen master listings, and has not undergone the full review process of a regimen monograph. Full regimen monographs will be published for each ST-QBP regimen as they are developed.
Rationale and Uses	First line therapy for the treatment of high risk GTD

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B - Drug Regimen

DACTINomycin	0.5 mg	IV	Days 1 and 2
etoposide	100 mg /m²	IV	Days 1 and 2
methotrexate	100 mg /m²	IV	Day 1 ONLY

Followed by

methotrexate	200 mg /m²	IV continuous infusion over 12 hrs	Day 1 ONLY

Beginning 24 hours after the start of methotrexate infusion, give leucovorin as follows:

leucovorin	15 mg	PO	Every 6 hrs x 4 doses

Day 8:

cyclophosphamide	600 mg /m²	IV	Day 8
vinCRIStine	1 mg /m²	IV (maximum 2 mg)	Day 8

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C - Cycle Frequency

REPEAT EVERY 14 DAYS

(EMA and CO are alternated at weekly intervals starting with EMA)

Treatment continued for 2-4 cycles past the first normal hCG level.

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D - Premedication and Supportive Measures

Antiemetic Regimen: Moderate

Febrile Neutropenia Risk: High

Other Supportive Care:

Also refer to CCO Antiemetic Recommendations.

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J - Administrative Information

Approximate Patient Visit	Days 1 and 2: Given as inpatient or 4-5 hours (outpatient); Day 8: 1 hour
Pharmacy Workload (average time per visit)	26.795 minutes
Nursing Workload (average time per visit)	55 minutes

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K - References

Berkowitz RS, Goldstein DP. Current management of gestational trophoblastic diseases. Gynecol Oncol 2009;112(3):654-62.

Bower M, Newlands ES, et al. EMA-CO for high-risk gestational trophoblastic tumors: results from a cohort of 272 patients. J Clin Oncol 1997 Jul; 15(7): 2636-43.

Escobar PF, Lurain JR, Singh DK, et al. Treatment of high-risk gestational trophoblastic neoplasia with etoposide, methotrexate, actinomycin D, cyclophosphamide, and vincristine chemotherapy. Gynecol Oncol 2003;91(3):552-7.

Lybol C, Thomas CM, Blanken EA, et al. Comparing cisplatin-based combination chemotherapy with EMA/CO chemotherapy for the treatment of high risk gestational trophoblastic neoplasia. Eur J Cancer 2013;49(4):860-7.

McNeish IA, Strickland S, Holden L, et al. Low-risk persistent gestational trophoblastic disease: outcome after initial treatment with low-dose methotrexate and folinic acid from 1992 to 2000. J Clin Oncol 2002;20(7):1838-44.

Newlands ES, et al, VP-16 in combination for first-line treatment of malignant germ-cell tumours and gestational choriocarcinoma. Semin Oncol, 1985; 12 (Suppl 12): 37-41

Princess Margaret Cancer Centre Clinical Practice Guidelines: Gynecologic Cancer (Gestational Trophoblastic Disease), July 2015.

Quinn M, Murray J, Friedlander M, et al. EMACO in high risk gestational trophoblast disease - the Australian experience. Aust NZ J Obstet Gynaecol 1994;34:90-2.

Society of Gynecologists and Obstetricians of Canada Clinical Practice Guidelines: Gestational Trophoblastic Disease.

June 2019 Updated emetic risk category

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M - Disclaimer

Regimen Abstracts

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Information in regimen abstracts is accurate to the extent of the ST-QBP regimen master listings, and has not undergone the full review process of a regimen monograph. Full regimen monographs will be published for each ST-QBP regimen as they are developed.

Regimen Monographs

Refer to the New Drug Funding Program or Ontario Public Drug Programs websites for the most up-to-date public funding information.

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