Epirubicin 90 / Cyclophosphamide 600, Breast Cancer, adjuvant

Protocol-ID: 579 V1.1 (Short), EC (EPIR90/CYCL600), Breast Ca, adj.

Indication(s)

- Breast Cancer; ICD-10 C50.-

Protocol classification

- Classification: alternative
- Intensity: Standard dose
- Therapy phase:
- Therapy intention: curative

Cycles

Cycle length 21 days, recommended cycles: 4

Protocol sequences

- EC (EPIR90/CYCL600), Breast Ca, adj. (PID579) -|- PACL80, Breast Ca, adj. (PID581)
- Neoadjuvant WSG-TP-II (Paclitaxel)
- Neoadjuvant WSG-TP-II (Letrozole)
- Neoadjuvant WSG-TP-II (Tamoxifen) -|- PERT840/TRAS8/TMXF20, Breast Ca, adj., C1 (PID2450)
- EC (EPIR90/CYCL600), Breast Ca, adj. (PID579) -|- DOCE100, adj. (PID395)

Risks

- Emetogenicity (MASCC/ESMO): moderate (30-90%)
- Neutropenia: very high (>41%)
- Febrile Neutropenia: intermediate (10-20%)
- Thrombocytopenia below 50 000/µl: low (<10%)
- Anemia Hb below 8g/dl: low (<5%)
- Dyspnea: CTC AE °3-4: 5%

Therapy

Hydration: Balanced Crystalloid Solution **HYD**

Access: peripheral venous

Hydration before, during, or after antitumor therapy

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	**Balanced Crystalloid Solution**	500 ml		i.v.	30 min	30 min before Epirubicin (d1)

Antiemesis: Emetogenicity high (AC), FOSAP, GRAN i.v., DEXA i.v **AE**

Access: peripheral venous

DGHO 2016, DKG 2016, MASCC/ESMO 2016, on combinations of anthracycline and cyclophosphamide

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	**Fosaprepitant**	150 mg	NaCl 0.9% 150 ml	i.v.	20 min	30 min before Epirubicin (d1)
1	**Dexamethasone**	12 mg	NaCl 0.9% 50 ml	i.v.	5 min	30 min before Epirubicin (d1)
1	**Granisetron**	1 mg	NaCl 0.9% 50 ml	i.v.	5 min	15 min before Epirubicin (d1)

or other 5-HT3 receptor antagonist

Supportive therapy: Mesna i.v., hour 0 (pre), p.o. 2 h, 6 h after onset Cyclophosphamide **SUP**

Access: peripheral venous

Mesna 0h,2h,6h, prophylaxis of urinary tract toxicity by cyclophosphamide. At the time of oxazaphosphorin injection, 20% of the oxazaphosphorin dose is injected simultaneously as mesna. 2 and 6 h after onset, oral intake of 40% of the oxazaphosporin dose.

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	**Mesna**	120 mg/m² BSA		i.v.	1 min	1 min before Cyclophosphamide (d1)
1	**Mesna**	240 mg/m² BSA		p.o.		90 min after Cyclophosphamide (d1)
1	**Mesna**	240 mg/m² BSA		p.o.		5 h after Cyclophosphamide (d1)

It is to be taken 6 hours after the start of the cyclophosphamide infusion.

Antineoplastic therapy: EPIR/CYCL Breast Carcinoma (EC) **CTX**

Access: central venous, port

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	**Epirubicin**	90 mg/m² BSA	Dextrose 5% 500 ml	i.v.	45 min	Sequence
1	**Cyclophosphamide**	600 mg/m² BSA	NaCl 0.9% 500 ml	i.v.	30 min	Sequence

Hematopoietic growth factors: FN risk 10-20%, G-CSF long-acting, pegylated **HW**

Access: - none -

Risk of febrile neutropenia (FN) 10-20% and 1 risk factor: age > 65 y, laboratory parameters (anemia, lymphocytopenia < 700/µl, hypalbuminemia, hyperbilirubinemia) previous chemotherapy, comorbidities, low performance status, advanced symptomatic tumor disease (DKG 2016)

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
2	**Pegfilgrastim**	6 mg		subc	Bolus	24 h after Cyclophosphamide (d1)

Use at risk: FN 10-20% and 1 risk factor, other long-acting G-CSF possible.

Warnings

Epirubicin: cardiac toxicity, maximum cumulative dose 900-1000 mg/m² KOF.
For EPIR extravasation: dry cold (not just before or after Dexrazoxane infusion) on day of extravasation. Dexrazoxane i.v. for 3 days: 2 days 1000 mg/m², 3rd day 500 mg/m², do not use in parallel with DMSO. First infusion as soon as possible and within the first 6 hours.

References

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Recommendations

- 12/2023: European Society for Medical Oncology

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