Epirubicin (breast)

Indication
Palliative therapy for metastatic breast cancer.

(NICE CG81)

ICD-10 codes
Codes with a prefix C50

Regimen details

Day	Drug	Dose	Route
1	Epirubicin	75*mg/m^2	IV bolus

*consider epirubicin 25mg/m^2 on days 1, 8 and 15 (i.e. weekly) for patients with significant co-morbidity

Cycle frequency
21 days

Number of cycles
Maximum of 6 cycles

Administration
Epirubicin is administered by slow IV bolus into the arm of a fast running drip of sodium chloride 0.9%.

Pre-medication
Nil

Emetogenicity
This regimen has moderate - low emetic potential

Additional supportive medication
Mouthwashes as per local policy
Antiemetics as per local policy
H_2 antagonist or proton-pump inhibitor if required

Extravasation
Epirubicin is a vesicant (Group 5)

Investigations – pre first cycle

Investigation	**Validity period** (or as per local policy)
FBC	14 days
U+E (including creatinine)	14 days
LFTs	14 days

ECHO or MUGA if significant cardiac history or previous anthracycline treatment.

Investigations - pre subsequent cycles

Investigation	**Validity period** (or as per local policy)
FBC*	96 hours
U+E (including creatinine)	7 days
LFTs	7 days

Weekly FBC if having weekly regimen.

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	≥ 1.0 x 10^9/L
Platelets	≥ 100 x 10^9/L
Creatinine Clearance (CrCl)	> 10 mL/min
Bilirubin	≤ 1.5 ULN

Dose modifications

- **Haematological toxicity**

If neutrophils <1.0 x 10^9/L and/or platelets <100 x 10^9/L delay 1 week or until recovery. Reduce dose to 80% if myelosuppression results in treatment delays.

- **Renal impairment**

There is no data available on the use of epirubicin in severe renal impairment. Consider dose reduction if CrCl <10mL/min (consultant decision).

- **Hepatic impairment**

Bilirubin (x ULN)	**Epirubicin dose**
1.5 – 3.0	50%
> 3.0	25%

- **Other toxicities**

For grade 3 or 4 mucositis/stomatitis – delay until resolved to ≤ grade 1 and reduce epirubicin to 80% dose.

Any other grade 3 or 4 toxicity- discuss with consultant.

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

- **Serious side effects**

Secondary malignancy
Myelosuppression
Anaphylaxis
Teratogenicity
Infertility/Early menopause
Cardiotoxicity

- **Frequently occurring side effects**

Diarrhoea
Fatigue
Nausea and vomiting
Myelosuppression
Stomatitis and mucositis
Peripheral neuropathy
Alopecia

- **Other side effects**

Red urine (for 24 hours post epirubicin)
Deranged liver function
Phlebitis
Skin toxicity
Nail changes
Taste disturbances

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 during treatment or if the patient continues taking an oral anticoagulant monitor the INR at least once a week and adjust dose accordingly.

Additional comments

Cardiotoxicity has been associated with anthracyclines therapy, with adverse events being more common in patients with a prior history of coronary artery disease. Caution must be taken in patients with a history of significant cardiac disease, arrhythmias or angina pectoris.

Epirubicin has a life time maximum cumulative dose of 900mg/m^2

References

- Fargeot P, et al. Disease-free survival advantage of weekly epirubicin plus tamoxifen versus tamoxifen alone as adjuvant treatment of operable, node-positive, elderly breast cancer patients: 6-year follow-up results of the French adjuvant study group 08 trial. J Clin Oncol. 2004;22(23):4674-4682.
- Summary of Product Characteristics Epirubicin (Hospira) accessed on 6 November 2014 via www.medicines.org.uk
- National Institute for Health and Clinical Excellence. Clinical Guideline 81 accessed on 6 November 2014 via www.nice.org.uk

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