**FEC 75 (5-Fluorouracil, Epirubicin, Cyclophosphamide)**

**DRUG ADMINISTRATION SCHEDULE**

<table>
<thead>
<tr>
<th>Day</th>
<th>Drug</th>
<th>Dose</th>
<th>Route</th>
<th>Diluent &amp; Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sodium Chloride 0.9%</td>
<td>250/500ml</td>
<td>Infusion</td>
<td>Fast Running</td>
</tr>
<tr>
<td>1</td>
<td>Ondansetron</td>
<td>8mg</td>
<td>Oral</td>
<td>Over at least 2 minutes</td>
</tr>
<tr>
<td>1</td>
<td>Dexamethasone</td>
<td>8mg</td>
<td>Oral /Slow bolus/15 min infusion</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Epirubicin</td>
<td>75 mg/m²</td>
<td>Intravenous</td>
<td>Via fast running NaCl Drip</td>
</tr>
<tr>
<td>1</td>
<td>Cyclophosphamide</td>
<td>600mg/m²</td>
<td>Intravenous</td>
<td>Via fast running NaCl Drip</td>
</tr>
<tr>
<td>1</td>
<td>Fluorouracil</td>
<td>600mg/m²</td>
<td>Intravenous</td>
<td>Via fast running NaCl Drip</td>
</tr>
</tbody>
</table>

*Ondansetron IV must be infused over 15 minutes in patients over 65 years of age.

**NUMBER OF DAYS PER CYCLE**
21 DAYS for 6 cycles

**APPROVED INDICATIONS**
Adjuvant Treatment for breast cancer

**PREMEDICATION**
As above

**RECOMMENDED TAKE HOME MEDICATION**
Oral Ondansetron 8mg Twice Daily for 2 to 3 days
Oral Dexamethasone 4mg Twice Daily for 1 to 3 days
Oral Metoclopramide 10mg Three Times Daily

*Suggested antiemetic regimen - may vary with local practice. See CINV policy for more details*

**INVESTIGATIONS / MONITORING REQUIRED//CRITICAL TESTS**
Baseline:
- FBC, LFTs, U&Es
- CXR, Bone Scan, Liver Ultrasound Scan (as per unit guidelines) – but recommended in ≥ 4 positive lymph nodes.
- ECG prior to commencement of treatment
- ECHO/MUGA scan pre- treatment and alternative cycles if significant cardiac history, or previous anthracycline therapy.

Before each treatment:
FB: proceed if ANC < 1.0 and PLT < 100
U&Es
LFTs: Refer to prescriber if AST/ALT > 2.5 x ULN (upper limit of normal)

**ASSESSMENT OF RESPONSE**
There will be no visible disease to monitor as this is adjuvant treatment.

**REVIEW BY CLINICIAN**
To be reviewed by either a Nurse, Pharmacist or Clinician before every cycle.

**NURSE / PHARMACIST LED REVIEW**
On cycles where not seen by clinician.
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ADMINISTRATION NOTES
Epirubicin is vesicant and must be given through a fast running drip
Risk of cardiotoxicity with cumulative doses of Epirubicin. Seek advice if the planned dose of Epirubicin will exceed 600 mg/m²

EXTRAVASATION See NCA/Local Policy -
Epirubicin very vesicant must take prompt action if extravasation occurs.

TOXICITIES
- Nausea & Vomiting
- Total Alopecia
- Stomatitis / Mucositis
- Cardiomyopathy and arrhythmia's
- Haemorrhagic cystitis due to cyclophosphamide. Encourage patient to drink 2 to 3 litres of fluid a day.
- Myelosuppression.
- Nail Pigmentation
- Patients with heart disease may experience coronary artery spasm with 5-FU

DPD Deficiency and Severe Toxicity Risk
Dihydropyrimidine dehydrogenase (DPD) plays an important role in the metabolism of fluoropyrimidine drugs 5-fluorouracil (5FU) and capecitabine. Patients with DPD deficiency may be predisposed to experience increased or severe toxicity when receiving 5-FU or capecitabine, and in some cases these events can be fatal.

For all patients having capecitabine or fluorouracil, the risk of severe side effects from capecitabine or 5FU if patients have a deficiency of DPD must be mentioned and patient given a copy of the DPD toxicity information leaflet from cancer research UK.


DOSE MODIFICATION Haematological Toxicity:
- Delay 1 week if ANC < 1.0, Platelets < 100
- No dose modification for CTC grade I/II ANC
- Grade III/IV ANC → delay chemotherapy until recovered. On recovery give 25% dose reduction

Note: GCSF should be considered for secondary prophylaxis in adjuvant therapy after an episode of febrile neutropenia or neutropenic sepsis.

Hepatic Dysfunction:

<table>
<thead>
<tr>
<th>Bilirubin</th>
<th>Epirubicin Dose</th>
<th>Cyclophosphamide Dose</th>
<th>5FU Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 19µmol/l</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>21 - 51µmol/l</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>&gt; 51µmol/l</td>
<td>25%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
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Renal Dysfunction

<table>
<thead>
<tr>
<th>CrCl (or GFR)</th>
<th>Epirubicin Dose</th>
<th>Cyclophosphamide Dose</th>
<th>5FU Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 20 ml/min</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>10-20 ml/min</td>
<td>100%</td>
<td>75%</td>
<td>100%</td>
</tr>
<tr>
<td>&lt; 10 ml/min</td>
<td>100%</td>
<td>50%</td>
<td>100%</td>
</tr>
</tbody>
</table>

TREATMENT LOCATION
Suitable for administration within Cancer Units and Cancer Centres

REFERENCES: