

## Chemotherapy protocol

### **Drug Regimen**

Subcutaneous trastuzumab

### **Indications for use**

Early or metastatic breast cancer in patients whose tumours over express Her-2 receptors (3+ on IHC or amplification on FISH).

### **Concurrent regimens**

When used in combination with a chemotherapeutic agent reference should be made to that respective protocol and the two protocols (trastuzumab and chemotherapeutic) used in tandem.

Subcutaneous trastuzumab may be used in the neoadjuvant setting in combination with regimens containing low doses of anthracycline i.e. total dose less than  $360\text{mg/m}^2$  of epirubicin or  $180\text{mg/m}^2$  of doxorubicin.

Subcutaneous trastuzumab should not be used concurrently with anthracyclines in the adjuvant setting

Subcutaneous trastuzumab should not be used in combination with pertuzumab.

### **Regimen**

Trastuzumab 600mg given over 2-5 minutes subcutaneously every 3 weeks

Continued for 18 cycles in the neoadjuvant and adjuvant settings and until disease progression in the metastatic setting

If trastuzumab is to be given concurrently with another chemotherapeutic agent, the trastuzumab should be given first

### **Investigations prior to initiating treatment**

Her-2 testing is **mandatory**

ECG

MUGA scan/ Echocardiogram

FBC, U&Es, LFTs especially when given in combination with chemotherapy

### **Contra-indication**

Anaphylactic reactions to trastuzumab

Ejection fraction of  $<50\%$  in the adjuvant setting or  $<40\%$  in the advanced setting

### **Cautions**

- Uncontrolled hypertension or angina
- Known allergies to animal proteins
- Symptomatic heart failure
- Previous exposure to anthracycline chemotherapy

## **Investigations and consultations to each cycle**

MUGA Scan every 4 months (or if patient has asymptomatic cardiac dysfunction every 6 or 8 weeks), in the adjuvant setting or every 6 months in the metastatic setting

As a single agent in the adjuvant setting: FBC every 3 months unless clinical symptoms dictate otherwise

As a single agent in the metastatic setting FBC, U&Es, LFTs and bone profile every 12 weeks if clinically stable unless otherwise instructed by the consultant

If neutrophils < 1.0 or platelets <80 contact consultant before administration. If counts are chronically low then refer results to consultant for information only after administration.

Consultation according to chemotherapy regime, 3 monthly if administered as single agent

## **Side Effects**

Administration related:

**Mild** – Chills and rigor, tumour site pain, nausea and vomiting, asthenia, headache, cardiotoxicity.

**Severe** – Dyspnoea, hypotension, urticaria/angioedema, anaphylaxis

Treatment of side effects:

**Mild** – Stop injection. Give 10 mg IV Piriton and 100 mg IV Hydrocortisone. Re start administration slowly after 30 minutes. If further problems discontinue administration and seek senior advice.

**Severe** – Stop injection. Give 100 mg Hydrocortisone and 10 mg Piriton stat. Get HELP. May need further resuscitation. Patient to be admitted. If severe liver capsule or bone pain occurs give Pethidine 25 – 50 mg IV

## **Specific Information on Administration**

Pre-med: Paracetamol 1 gm 30-60 minutes before treatment, and regularly for 24 hours after treatment

The 600 mg dose should be administered as a subcutaneous injection only over 2-5 minutes. The injection site should be alternated between the left and right thigh. New injections should be given at least 2.5 cm from the old site and never into areas where the skin is red, bruised, tender, or hard. During the treatment course with Herceptin subcutaneous formulation other medicinal products for subcutaneous administration should preferably be injected at different sites.

Patients should be observed for two hours after the first injection and for 30 minutes after subsequent injections for signs or symptoms of administration-related reactions. The observation time in subsequent doses may be reduced at local clinician's discretion

**THIS PROTOCOL HAS BEEN DIRECTED BY DR BOARD, CLINICIAN FOR BREAST CANCER**

**RESPONSIBILITY FOR THIS PROTOCOL LIES WITH THE HEAD OF SERVICE**

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