TRASTUZUMAB subcutaneous (Herceptin) or intravenous (biosimilar)

INDICATION (ICD10) C50

1. Trastuzumab monotherapy is recommended for women with tumours with excessive HER2 at levels of 3+ who have had at least two chemotherapy treatments for metastatic breast cancer. Previous chemotherapy must have included at least an anthracycline drug and a taxane drug where these treatments are appropriate. It should also have included hormonal therapy in patients sensitive to oestrogen.

REGIMEN

Day 1 TRASTUZUMAB 600mg subcutaneously over 5 minutes
or
Day 1 TRASTUZUMAB 8mg/kg in 250ml sodium chloride 0.9% IV infusion cycle 1 only
TRASTUZUMAB 6mg/kg in 250ml sodium chloride 0.9% IV infusion cycles 2 onwards

Subcutaneous - Trastuzumab observation time post injection 30 minutes after the first injection and for 15 minutes after subsequent injections.

Intravenous - Trastuzumab SPC states patients need to be monitored for 6 hours after the start of the first dose and 2 hours after the start of subsequent doses.
Cycle 1 - administer trastuzumab over 90 minutes. Monitor for 3.5 hours post start of infusion (2 hours after completion) of the first dose,
Subsequent cycles - if the initial loading dose was well tolerated (no signs of hypersensitivity), the 2nd dose can be administered as a 30 minute infusion (otherwise to continue to be administered over 90 minutes), and subsequent infusions can be administered over 30 minutes.
If the first cycle was well tolerated, following the 2nd and 3rd cycles patients should be observed on the ward / day unit for 30 minutes after the completion of trastuzumab infusion.
If the 2nd and 3rd cycles were well tolerated, after the 4th and subsequent cycles patients do not need to be observed following completion of trastuzumab infusion.
Patients should be warned of the possibility of delayed reactions and instructed to seek medical advice immediately should this occur.

CYCLE FREQUENCY AND NUMBER OF CYCLES

Every 21 days
Metastatic breast cancer until disease progression

ANTI-EMETICS

Minimal risk day 1

CONCURRENT MEDICATION REQUIRED

Trastuzumab	Infusion related chills and/or fevers – treat with paracetamol and chlorphenamine.

EXTRAVASATION AND TYPE OF LINE / FILTERS

Trastuzumab IV – neutral

No filters required
Central or peripheral line

INVESTIGATIONS

Blood results required before SACT administration
FBC, U&Es & LFTs 3 monthly
Baseline weight and 3 monthly weight for IV only.
Monitor cardiac function (ECG/ECHO/MUGA) as per network policy

MAIN TOXICITES AND ADVERSE REACTIONS

Trastuzumab	Cardiotoxicity - monitor cardiac function. Trastuzumab infusion related chills and/or fevers are commonly observed during the first infusion (but infrequently with subsequent infusions). Other symptoms may include nausea, hypertension, vomiting, pain, rigors, headache, cough, dizziness, rash, and asthenia. Some adverse reactions to trastuzumab infusion including dyspnoea, hypotension, wheezing, bronchospasm, supraventricular tachyarrhythmia, reduced oxygen saturation and respiratory distress can be serious and potentially fatal. If symptoms of back ache, nausea or vomiting, do a set of obs. Give hydrocortisone 100mg IV, chlorphenamine 10mg IV.

DOSE MODIFICATIONS

Trastuzumab SC - if the patient misses a dose, it is recommended to administer the next 600mg dose (i.e. the missed dose) as soon as possible. The interval between consecutive trastuzumab subcutaneous formulation administrations should not be less than three weeks.

Trastuzumab IV – if infusion is delayed by more than 7 days the patient should be reloaded at 8mg/kg.

Haematological

Trastuzumab
No dose reduction or cessation of Trastuzumab is required if patient have acute reversible neutropenia

Non-haematological

Trastuzumab
Continuation and discontinuation of trastuzumab based on interval LVEF assessment network guidelines.

REFERENCES

1. Slamon, D J et al; NEJM 2001; Vol 344 (11): 783-792
2. Verma, S et al; Eur J Cancer; 37 (Suppl 6)
3. Romond, EH et al; NEJM 2005; 353: 1673–1684
4. Piccart-Gebhart, MJ et al; NEJM 2005; 353: 1659–1672
5. 1Jones, AL et al; Br J Cancer 2009; 100: 684–692