

Chemotherapy April 17y Protocol

SKIN CANCER

BLEOMYCIN (ELECTROCHEMOTHERAPY)

Please note this protocol only refers to the administration of bleomycin in the setting of electrochemotherapy. It does not cover the procedure itself.

Regimen

- Skin – Bleomycin (electrochemotherapy)

Indication

- Bleomycin, by electrochemotherapy, is recommended as an option for patients with melanoma with cutaneous and subcutaneous nodules. It may also be used for cutaneous metastases from other primary tumour after MDT discussion
- Performance status 0,1,2

Toxicity

Drug	Adverse Effect
Bleomycin	Pulmonary toxicity, rigors, skin pigmentation, nail changes

The adverse effects listed are not exhaustive. Please refer to the relevant Summary of Product Characteristics for full details.

Monitoring

- FBC, LFTs and U&Es and INR should be checked prior to treatment
- Respiratory examination
- An ECG before treatment depends on the location of the nodules. It is less important if the nodules are on the limbs and more important if on the trunk. It also depends on the patient's pre-morbid condition i.e. cardiac history. It is highly recommended in the case of manifest cardiac arrhythmia or previous cardiac event.

Dose Modifications

The dose modifications listed are for haematological, liver and renal function only. Dose adjustments may be necessary for other toxicities as well.

In principle all dose reductions due to adverse drug reactions should not be re-escalated in subsequent cycles without consultant approval. It is also a general rule for chemotherapy that if a third dose reduction is necessary treatment should be stopped.

Please discuss all dose reductions / delays with the relevant consultant before prescribing if appropriate. The approach may be different depending on the clinical circumstances. The following is a general guide only.

Please note this is generally a single treatment (one cycle).

Haematological

Prior to prescribing the following criteria must be met;

Criteria	Eligible Level
INR	less than 1.5
Platelets	more than $70 \times 10^9/L$

Hepatic Impairment

- Hepatic impairment increases the risk of lung dysfunction.

Renal Impairment

Drug	Creatinine Clearance (ml/min)	Dose (% of original dose)
Bleomycin	more than 50	100%
	10 - 50	75%
	less than 10	50%

Other

Lung

The risk of bleomycin induced pneumonitis is greater in those individuals who are older than forty years of age, have a history of smoking, those with underlying lung disease, previous mediastinal radiotherapy, poor renal function or who require growth factors. If pulmonary symptoms develop stop the bleomycin until they can be investigated fully and a diagnosis made.

Regimen

1 cycle will be set in ARIA

Drug	Dose	Days	Administration
Bleomycin	15,000 international units/m ²	1	Intravenous bolus given between 30-60 seconds

Dose Information

- Bleomycin dose will be rounded to the nearest 1,000 international units (up if halfway)
- The maximum cumulative dose of bleomycin is 400,000 international units in people less than sixty years of age. Refer to SPC for further information in older patients.

Administration Information

- The bleomycin should be administered over not less than 30 seconds but not more than 60 seconds
- After eight minutes to allow the drug to diffuse into tissues, then proceed with administration of the required local anaesthetic.

Extravasation

- Bleomycin - neutral

Additional Therapy

- No antiemetics are required
- The bleomycin is administered to patients under general anaesthetic. As such they cannot report any adverse reactions to the injection. To stop such events administer the following agents immediately before the bleomycin;

hydrocortisone 100mg intravenous
chlorphenamine 10mg intravenous

Additional Information

- Electrochemotherapy combines administration of non- permeant or poorly permeant chemotherapeutic drugs with application of electric pulses to the tumours in order to facilitate the drug delivery into the cells.
- The presence of a pacemaker precludes treatment on the anterior chest wall.

Coding

- Procurement – X70.8
- Delivery – X72.9

References

1. Mir LM, Gehl J, Sersa G et al. Standard operating procedures of the electrochemotherapy: Instructions for the use of bleomycin or cisplatin administered either systemically or locally and electric pulses delivered by the Cliniporator™ by means of invasive or non-invasive electrodes. European Journal of Cancer supplements 2006;4(11) : 14-25

REGIMEN SUMMARY

Day One

1. Chlorphenamine 10mg intravenous
2. Hydrocortisone 100mg intravenous
3. Bleomycin 15 000IU/m² intravenous bolus over 60 seconds
Administration Instructions
Administer over no less than 30 seconds but no more than 60 seconds. Wait eight minutes to allow the drug to diffuse into tissues, then proceed with administration of the required local anaesthetic

DOCUMENT CONTROL

Version	Date	Amendment	Written By	Approved By
1	April 2017	None	Colin Harper Pharmacist	Dr Matthew Wheeler Consultant Medical Oncologist

This chemotherapy protocol has been developed as part of the chemotherapy electronic prescribing project. This was and remains a collaborative project that originated from the former CSCCN. These documents have been approved on behalf of the following Trusts;

Hampshire Hospitals NHS Foundation Trust
 NHS Isle of Wight
 Portsmouth Hospitals NHS Trust
 Salisbury Hospital NHS Foundation Trust
 University Hospital Southampton NHS Foundation Trust
 Western Sussex Hospitals NHS Foundation Trust

All actions have been taken to ensure these protocols are correct. However, no responsibility can be taken for errors which occur as a result of following these guidelines.