

**Systemic Anti Cancer Treatment Protocol**

**Use of White Blood Cell Growth Factors in the Treatment of Solid Tumours**

**PROTOCOL REF: MPHAWHITE  
(Version No: 1.1)**

**Approved for use in:**

**Following the COVID 19 pandemic NHSE have updated guidance on use of prophylactic G-CSF as per below:**

**Clinical teams may consider increasing the use of prophylactic G-CSF post chemotherapy in children and adult patients with a 10-20% risk of neutropenia as a result of chemotherapy.**

**PEGylated biosimilar G-CSF (PEG G-CSF / pegfilgrastim) may be considered instead of daily G-CSF to minimise risk of exposure to COVID-19 in immunocompromised patients by reducing hospital attendances and / or community nurse visits for administration of G-CSF and also to reduce the requirement for health care professional time to administer daily G-CSF when the workforce may be required to deliver other priority care. For supply chain reasons it is recommended that Trusts should assess patients individually and only use PEG G-CSF where daily G-CSF is not suitable.**

Used as primary prophylaxis for treatments which have more than 20% risk of neutropenic sepsis for curative intent and no other regimen which is as efficacious, examples are:

- FEC-D (fluorouracil/epirubicin/cyclophosphamide – docetaxel) for breast cancer
- FEC100 (fluorouracil/epirubicin/cyclophosphamide) for breast cancer
- AC-D (doxorubicin/cyclophosphamide – docetaxel) for breast cancer

Issue Date: 12 <sup>th</sup> June 2020 Review: June 2023	Page 1 of 4	Protocol reference: MPHAWHITE
Author: Rachel Pritchard	Authorised by: Drugs and Therapeutics Committee	Version No: 1.1

EC – D (epirubin/cyclophosphamide – docetaxel) for breast cancer

TAC (docetaxel/doxorubicin/cyclophosphamide) for breast cancer

TPF (docetaxel/cisplatin/fluorouracil) for head and neck cancer

VIDE (vincristine/ifosfamide/doxorubicin/etoposide) for sarcoma

Doxorubicin/ciplatin for sarcoma

BEP (bleomycin/etoposide/cisplatin) for testicular cancer

TIP (paclitaxel, ifosfamide/cisplatin) for testicular cancer

EP (etoposide/cisplatin) for testicular cancer

### Secondary Prophylaxis:

Docetaxel for hormone sensitive metastatic prostate cancer 3 weekly regime.

May be used as secondary prophylaxis in patients who are undergoing treatment which is for curative intent for whom a dose reduction/delay would compromise treatment plan

Not for use in the palliative setting where dose reductions and delayed treatment would be more appropriate

Growth factors may be used in clinical trials where we would not usually use them this must be dictated by the trial protocol and funded by the trial. Usual practice is to reflect Trust guidelines.

### Dosage:

Drug	Dosage	Route	Frequency
Filgrastrim	300micrograms in patients less than 70kg	Subcutaneous injection	To be used for 7 days starting on day three
Filgrastrim	480micrograms in patients 70kg or more		
Pegfilgrastim	6mg	Subcutaneous injection	To be given 24hours post chemotherapy.

Pegfilgrastrim PEG-GCSF should be considered for the following patients:

- Patients who are unable to self-administer G-CSF or who are reliant on a family member to administer it who may become ill.

- Patients having G-CSF for prolonged periods i.e. 7-8 days requiring community / district nurse visits.
- Patients that are the most vulnerable (due to age or other co-morbidities).

PEG G-CSF should **NOT** be considered first line in patients who are:-

- already inpatients and likely to remain so during administration of G-CSF
- Patients requiring G-CSF for stem cell harvest
- Patients with bone marrow disease

These guidance examples should be considered as guide only and not exhaustive and should not replace individual patient assessment.

The decision to use PEG G-CSF must be made by an oncology / haematology consultant only.

### Supportive Treatments:

Patients may wish to use paracetamol if bone pain is an issue

### Extravasation risk:

Nil

### Administration:

#### Filgrastim

Day	Drug	Dose	Route	Diluent and rate
3-10	Filgrastim	300/480micrograms	SC	

To be given 72 hours post SACT

Leaflets of filgrastim brands can be found at [www.medicines.org.uk](http://www.medicines.org.uk)

**Pegfilgrastim**

Day	Drug	Dose	Route	Diluent and rate
24hours Post SACT	Pegfilgrastim	6mg	SC	

**Leaflets on pegfilgrastim brands can be found at [www.medicines.org.uk](http://www.medicines.org.uk)**

**Main Toxicities:**

Most frequent undesirable effect was musculoskeletal pain which is mild or moderate on 10% and severe in 3% of patients

**Investigations:**

As indicated by SACT treatment plan

**References:**

Recommendations for the use of WBC Growth Factors: American Society of Clinical Oncology Practice Guideline update downloaded from [www.ascopubs.org](http://www.ascopubs.org) on 9/05/2017

Filgrastim Zarzio brand 30MU and 48MU, Summary of Product

Characteristics. Sandoz. Available from

<http://www.medicines.org.uk/emc/medicine/22310> Last accessed at 12.13 on 10/05/2017.

Pegfilgrastim; Pelgraz 6mg. Summary of product characteristics. Accord Healthcare:

<https://www.medicines.org.uk/emc/product/9531>. Last Updated 05/12/2019

Pegfilgrastim; Pelmeg 6mg. Summary of product characteristics. Napp

Pharmaceuticals: <https://www.medicines.org.uk/emc/product/9849/smpc>. Last updated 26/11/2019.

Pegfilgrastim; Ziextenzo 6mg. Summary of product characteristics. Sandoz limited.

<https://www.medicines.org.uk/emc/product/9702/smpc>. Last Updated 21/01/2020.

Issue Date: 12 <sup>th</sup> June 2020 Review: June 2023	Page 4 of 4	Protocol reference: MPHAWHITE
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