

Growth Factor Support

This document summarises the basis for the guidance on growth factor support provided for medical oncology regimens in the ACT-NOW Systemic Anti-Cancer Therapy Regimen Library (SRL).

Growth factor support value options for the SRL:

- [Recommended for primary prophylaxis](#)
- [Growth factor prophylaxis is not recommended](#)
- [Variable](#)

Guidance

- Growth factor support shortens the duration and severity of the neutrophil nadir that occurs after chemotherapy and reduces the risk of febrile neutropenia (FN).
- Recommendations in the SRL regimens are limited to **primary** prophylaxis only; **secondary** prophylaxis will be clinician driven and not part of the default regimen.

Recommended for primary prophylaxis

- Included in regimens where there is a high risk of febrile neutropenia (FN) i.e. FN risk 20% or greater.
- Generally, **primary** growth factor support will only be recommended in regimens with curative intent to maintain dose intensity of the protocol. Primary growth factor support is not usually included in regimens of non-curative intent as dose adjustment of anti-cancer medication(s) or treatment delays will be the usual strategy to avoid FN.
- Recommendations are based on the regimen constituents; other patient factors should be considered as they may elevate the risk of developing FN after an anti-cancer regimen with an intermediate risk (FN risk 10-20%) to high risk. Risk factors may include, older age (65 years and over), advanced stage of disease, experience of previous episode of FN.
- The default growth factor support prescription is included within the SRL regimen definition as either:
 - **filgrastim** 5 micrograms/kg subcutaneously ONCE daily, starting 24 hours after SACT and continued for 5 to 7 days.
 - **pegFILGRASTIM** 6 mg subcutaneously, given 24 hours after SACT.

Note: pegfilgrastim should be given no sooner than 10 to 14 days before next cycle of anti-cancer therapy (unless vincristine is given as a single agent in this time-period). If the next anti-cancer therapy cycle is scheduled for less than 14 days, consider filgrastim.

Growth factor prophylaxis is not recommended

Used only for regimens where growth factors are specifically **not recommended** for clinical reasons, e.g. head and neck cancer chemoradiation regimens.

Variable

- Used in complex regimens which have different requirements for different cycles.
- Explanatory notes are included under the Supportive Care Factors section of the regimen.
- The recommended growth factor support primary prophylaxis prescription is included within the regimen definition as per “Recommended for primary prophylaxis” above in those cycles where that is appropriate.

Each cancer type working group chair has then made the final decision as to the requirement of growth factor support within an SRL regimen.

References

1. Apro MS, Bohlius J, Cameron DA, et al; European Organisation for Research and Treatment of Cancer. 2010 update of EORTC guidelines for the use of granulocyte-colony stimulating factor to reduce the incidence of chemotherapy-induced febrile neutropenia in adult patients with lymphoproliferative disorders and solid tumours. *Eur J Cancer*. 2011 Jan;47(1):8-32. PMID: [21095116](#).
2. Smith TJ, Bohlke K, Lyman GH, et al; American Society of Clinical Oncology. Recommendations for the Use of WBC Growth Factors: American Society of Clinical Oncology Clinical Practice Guideline Update. *J Clin Oncol*. 2015 Oct 1;33(28):3199-212. PMID: [26169616](#).
3. Staar S, Rudat V, et al. Intensified hyperfractionated accelerated radiotherapy limits the additional benefit of simultaneous chemotherapy--results of a multicentric randomized German trial in advanced head-and-neck cancer. *Int J Radiat Oncol Biol Phys*. 2001 Aug 1;50(5):1161-71. PMID: [11483325](#).

Version: 1.0

Last updated: 25-Oct-2025