

Plinabulin is a more Favorable Option for the Prevention of Chemotherapy Induced Neutropenia (CIN) than Pegfilgrastim during the COVID-19 Pandemic.

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ESMO Abstract
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Introduction

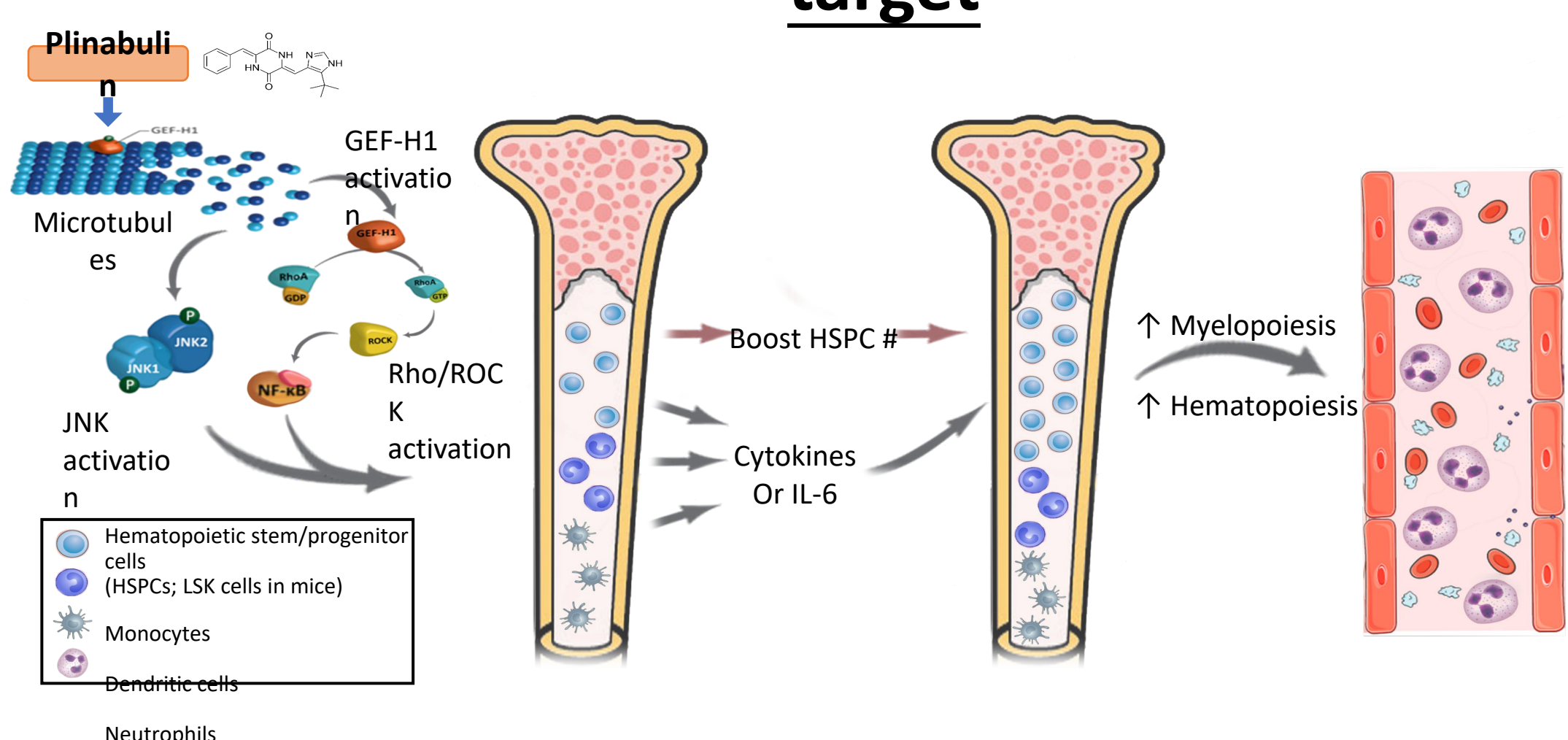
- Due to COVID-19, the NCCN Myeloid Growth Factor Panel expanded prophylactic G-CSF use to chemotherapy with Intermediate Risk (10%-20% risk) of Febrile Neutropenia (FN), and to Low Risk FN patients (pts) who previously developed FN.
- Preservation of resources for COVID-19 pts by reducing hospitalizations and emergency room visits by cancer chemotherapy pts is the intent of these changed recommendations.
- Other recommendations include use of self-injecting or on-body injector Pegfilgrastim, to minimize COVID-19 exposure at outpatient center by cancer pts and limiting prophylactic platelet transfusion to preserve blood product supply.
- Plinabulin is an attractive alternative: it is a novel, non-G-CSF small molecule with CIN protection comparable to Pegfilgrastim, is given once 30 minutes after Chemo, and avoids the need for healthcare system touches on Day 1-3 for G-CSF administration.
- In contrast to Pegfilgrastim, Plinabulin does not cause bone pain and thrombocytopenia and maintains quality of life.

Methods

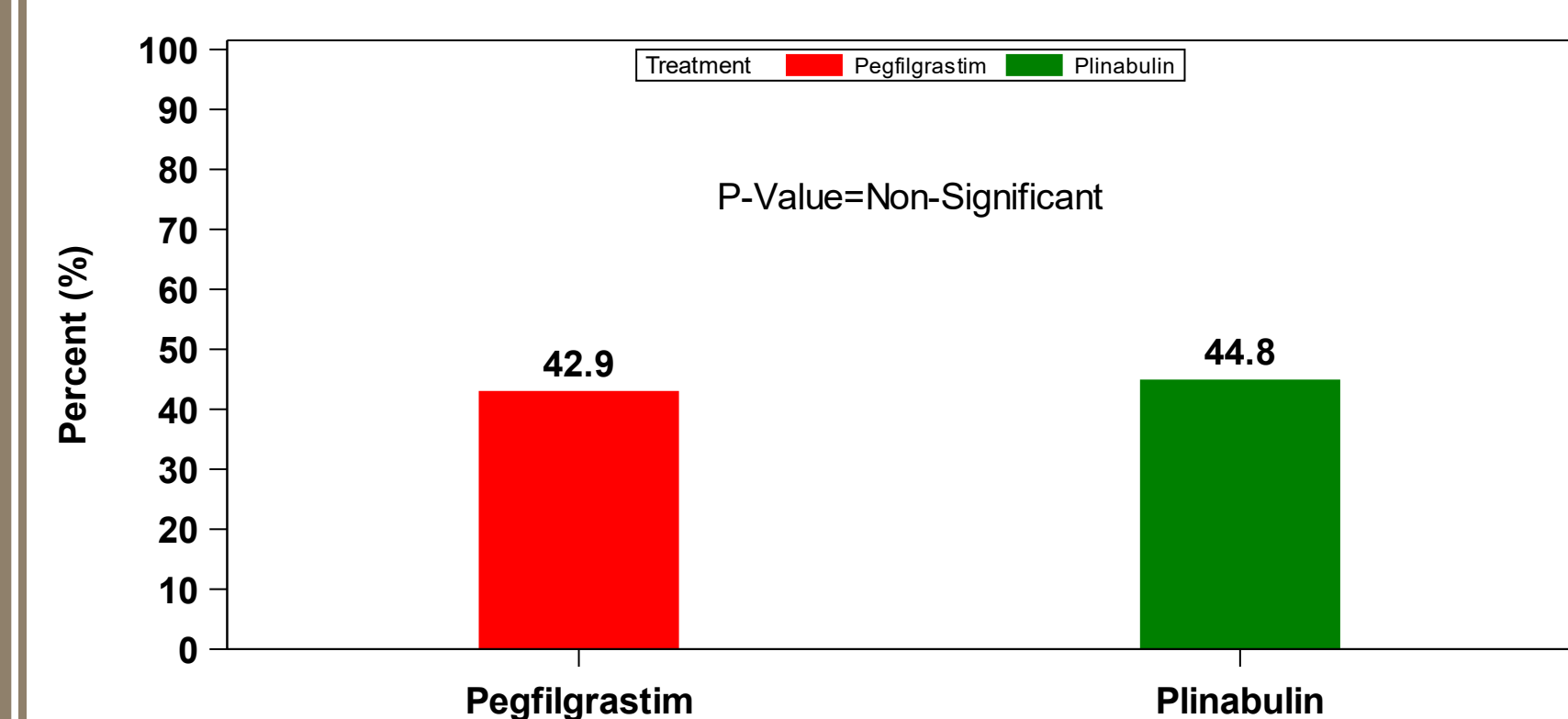
- We compared CIN data with single agent Plinabulin 20 mg/m² (n=29) vs single agent Peg 6mg (n=35) from 2 different Phase 2 CIN studies over 4 cycles were done.
- Study 105 (NCT03102606) in NSCLC patients given Intermediate FN Risk Docetaxel 75 mg/m² patients with risk factors), and,
- Study 106 (NCT03294577) in Breast cancer pts given High FN Risk Doc +Doxorubicin 50 mg/m² + Cyclophosphamide 50mg/m² (TAC).
- Plinabulin was given as a single IV infusion on Day 1, 30 min after the last Chemo, and Pegfilgrastim 6mg given on Day 2 by SC injection.
- Grade 4 Neutropenia, Hospitalizations, Infection rate, Sepsis, all Grade, Grade 2/3 Thrombocytopenia Bone Pain is summarized for single agent Plinabulin and Pegfilgrastim

Plinabulin Mechanism of Action

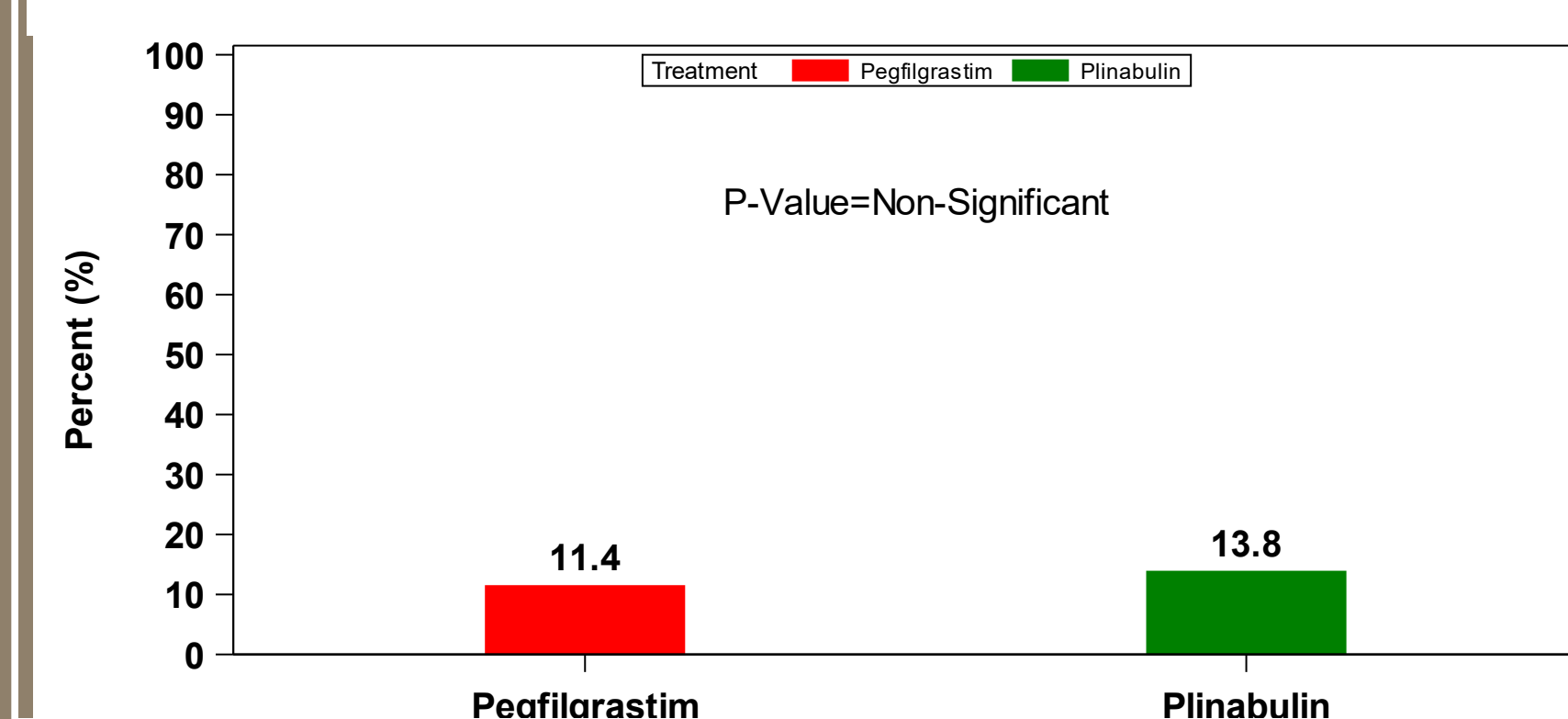
MoA - Plinabulin - First-in-Class Agent with GEF-H1 as a new target



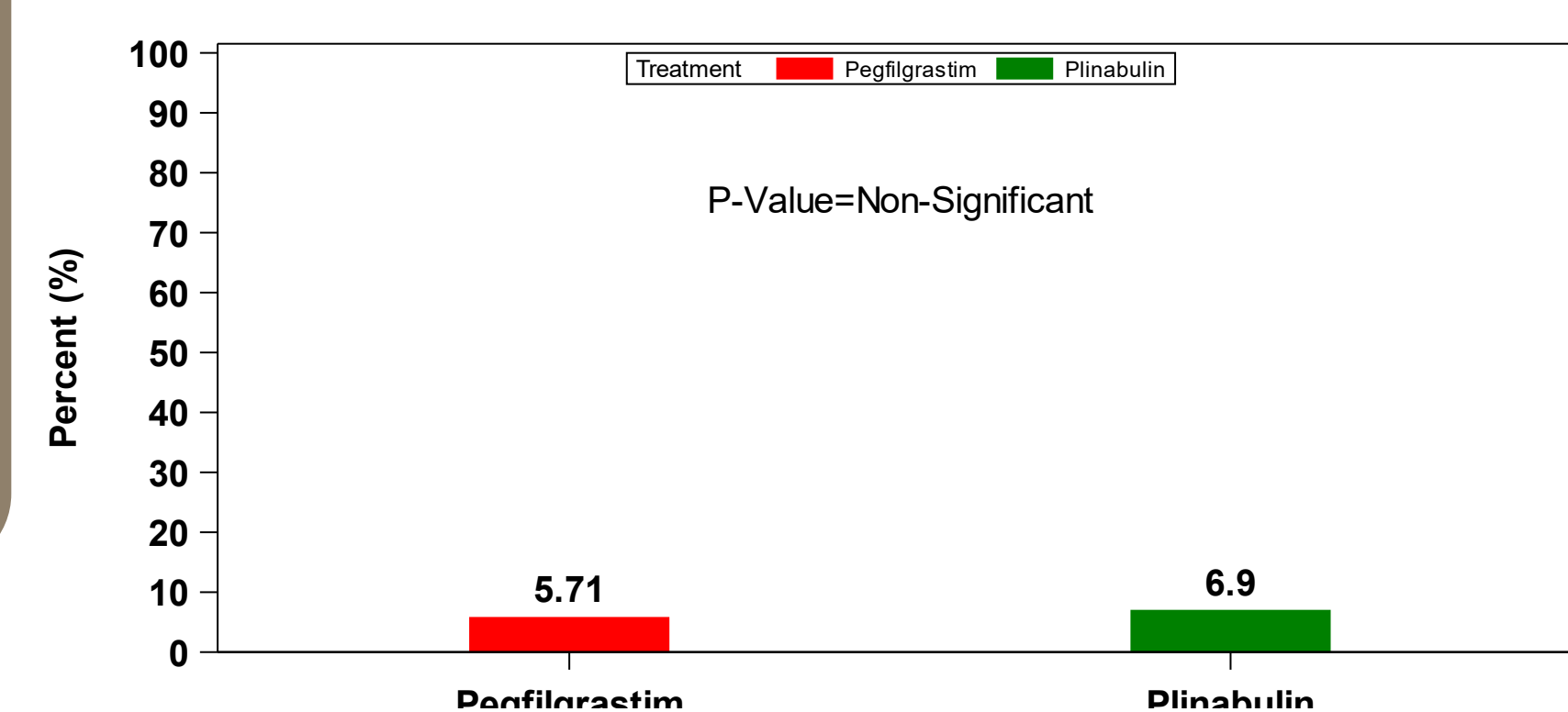
Fewer Neutropenic Complications with Plinabulin Compared to Pegfilgrastim



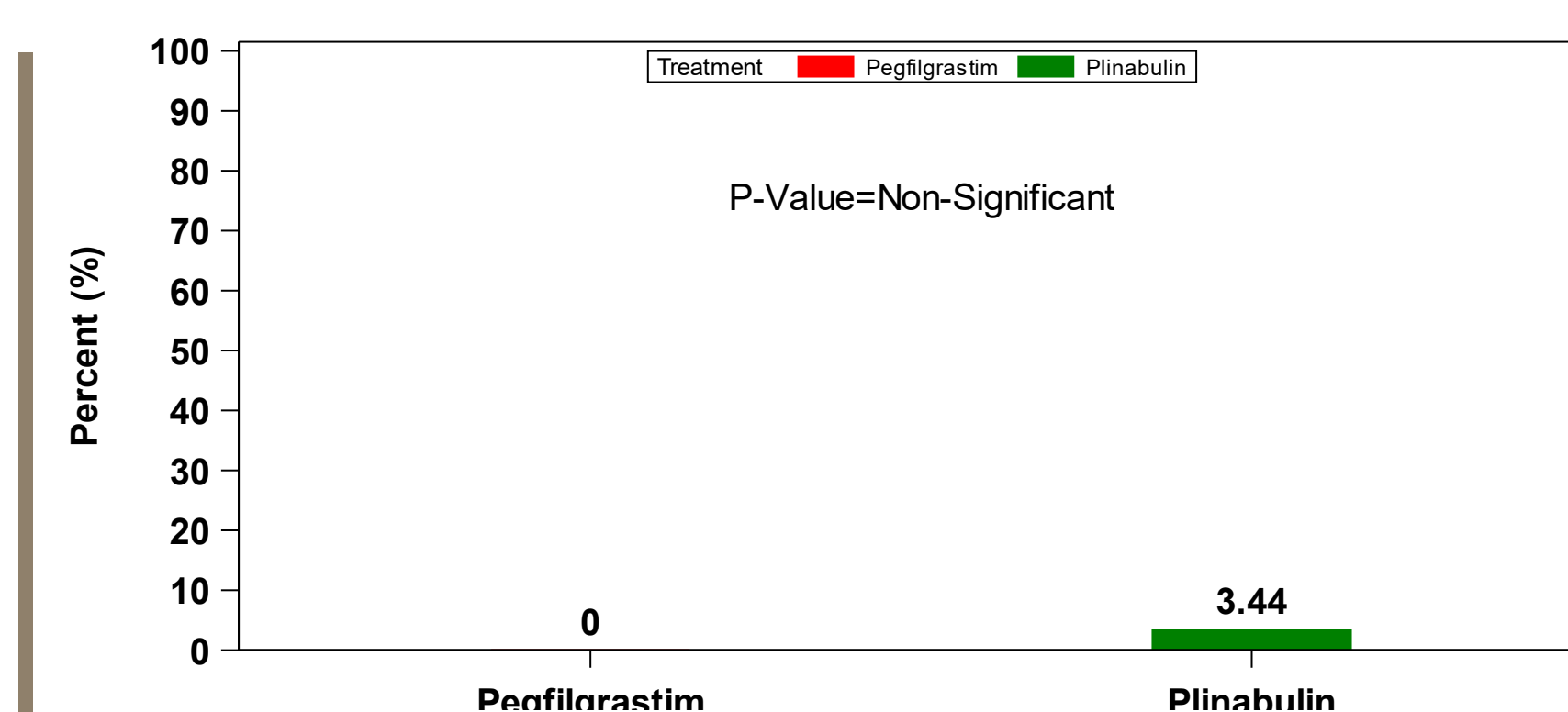
Grade 4 Neutropenia Frequency



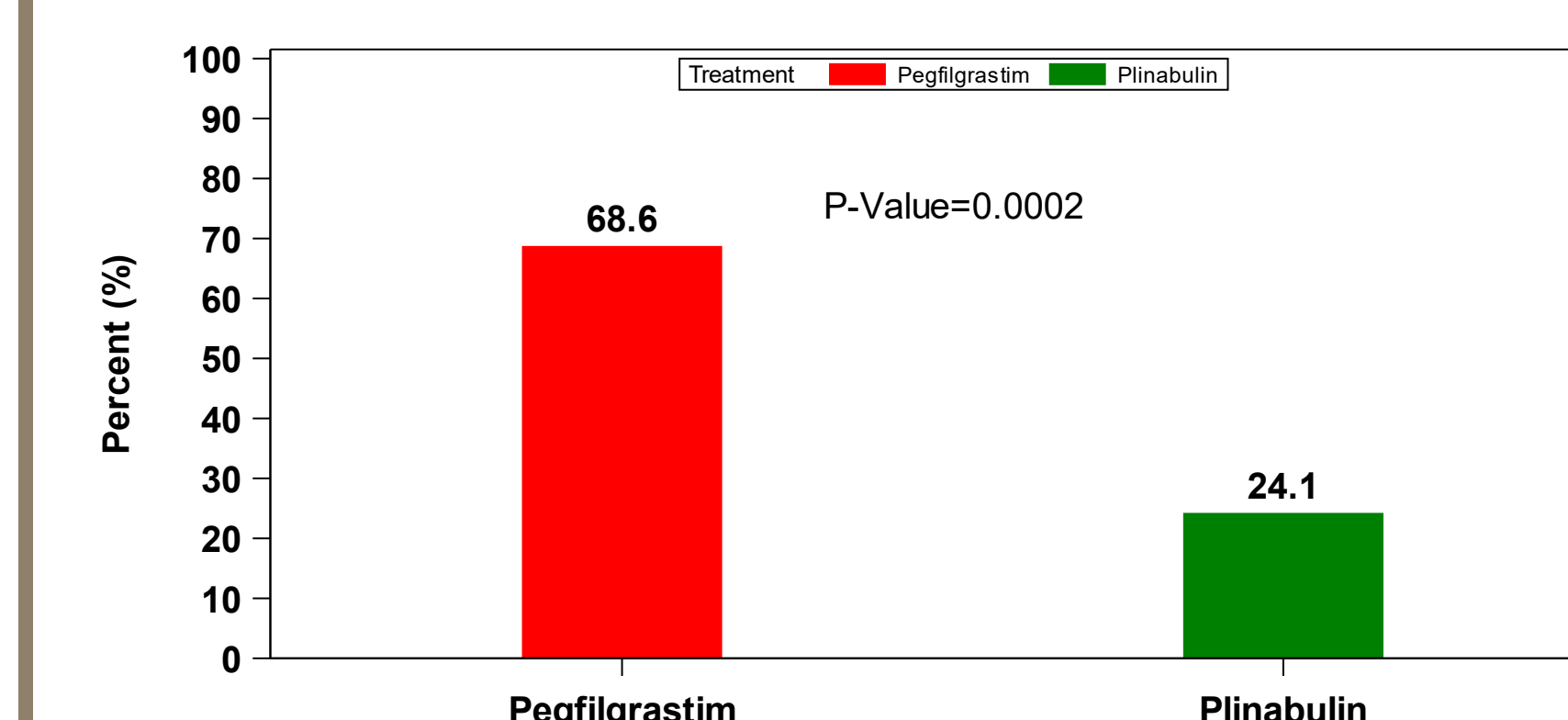
Hospitalizations



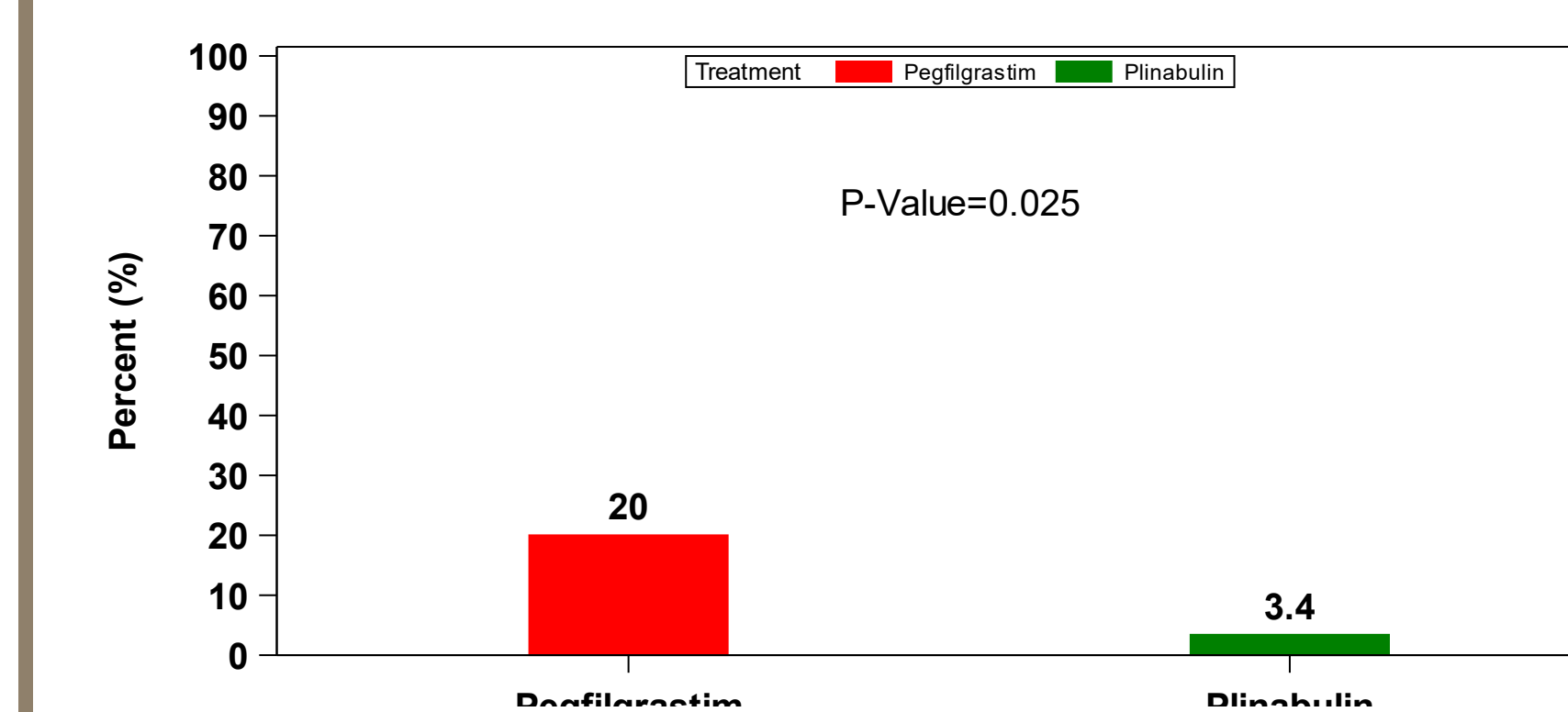
Infection Rate



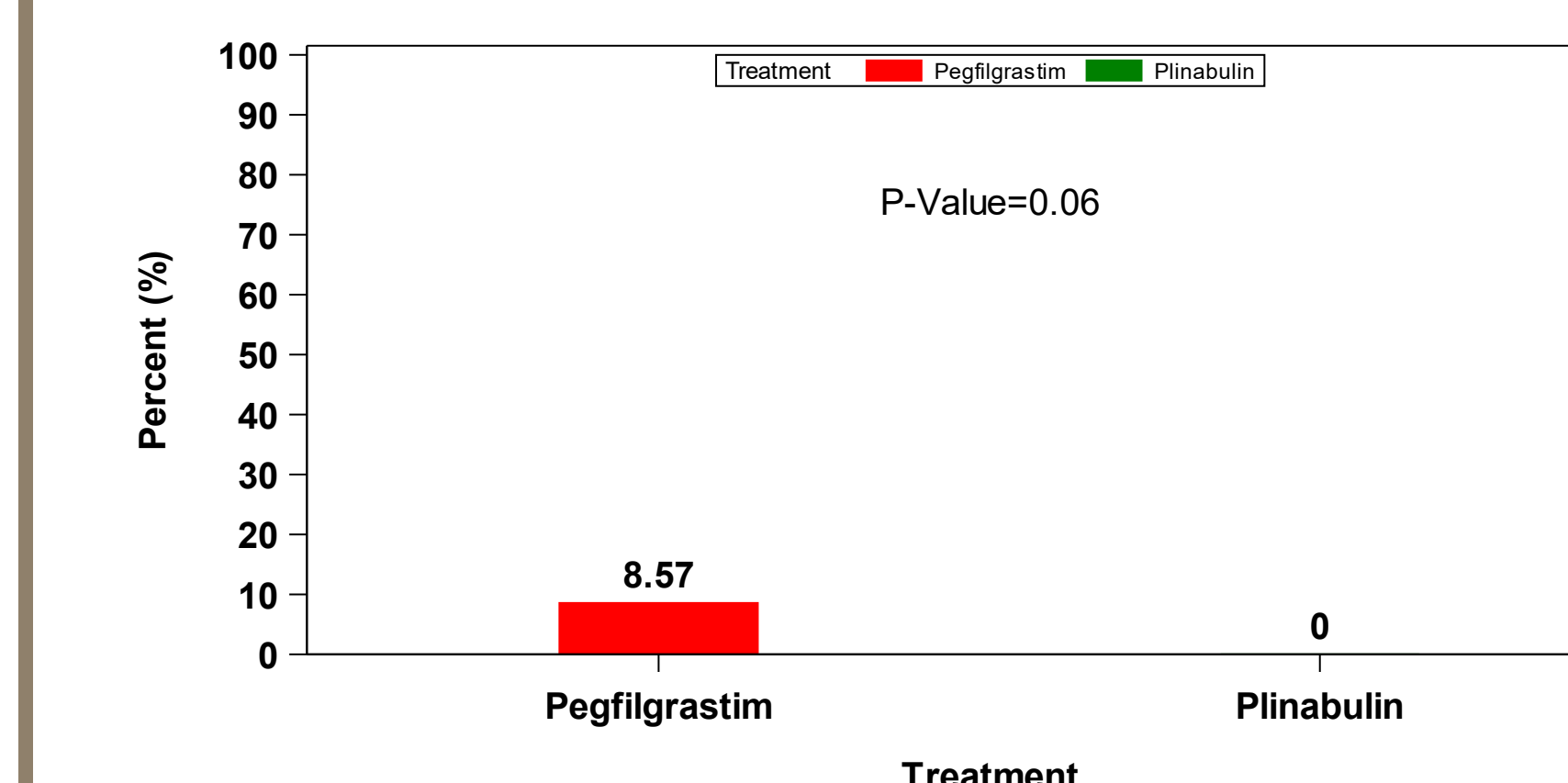
Sepsis



All Grade Thrombocytopenia



Grade 2/3 Thrombocytopenia

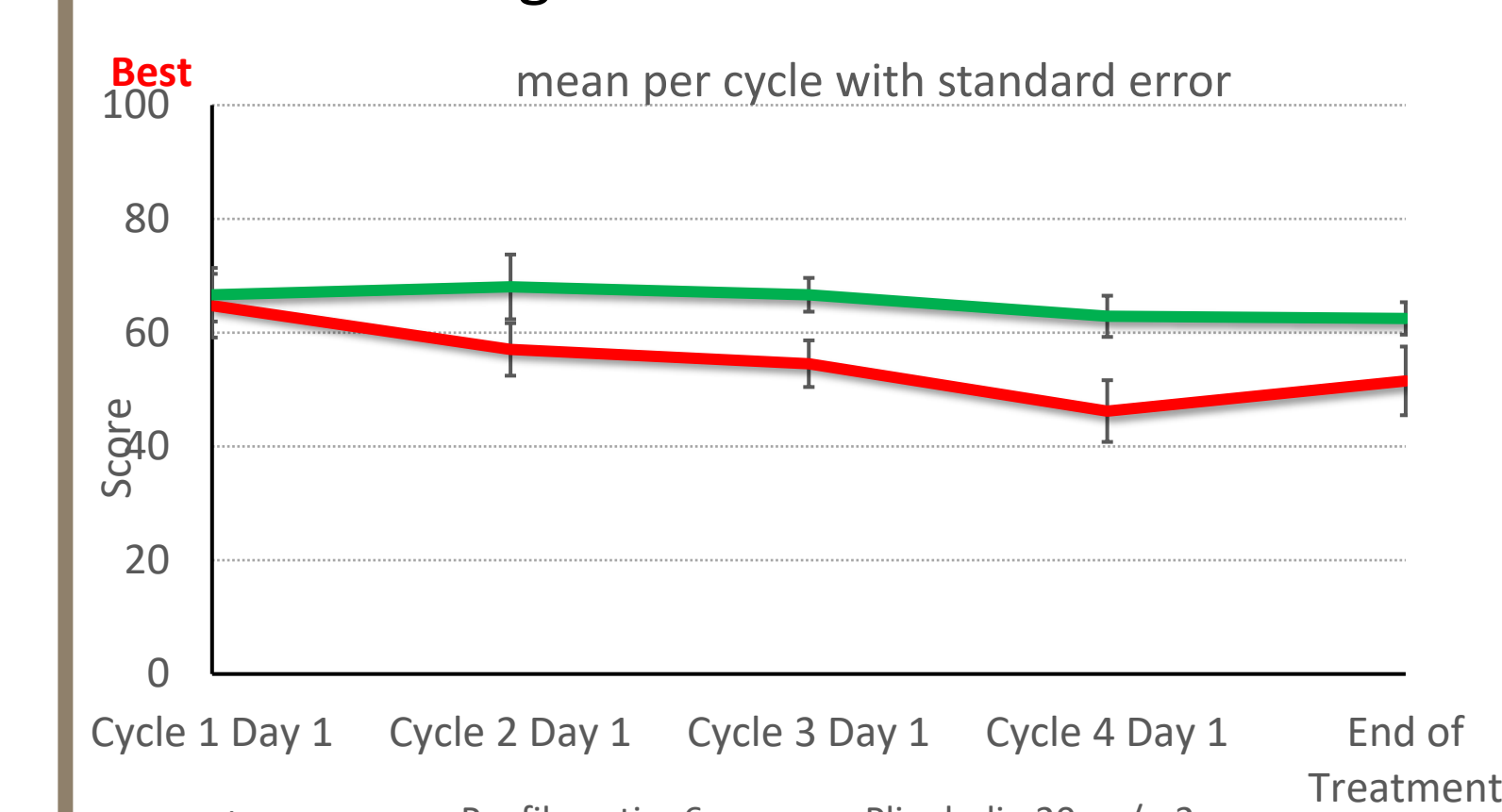


Grade 3 Thrombocytopenia

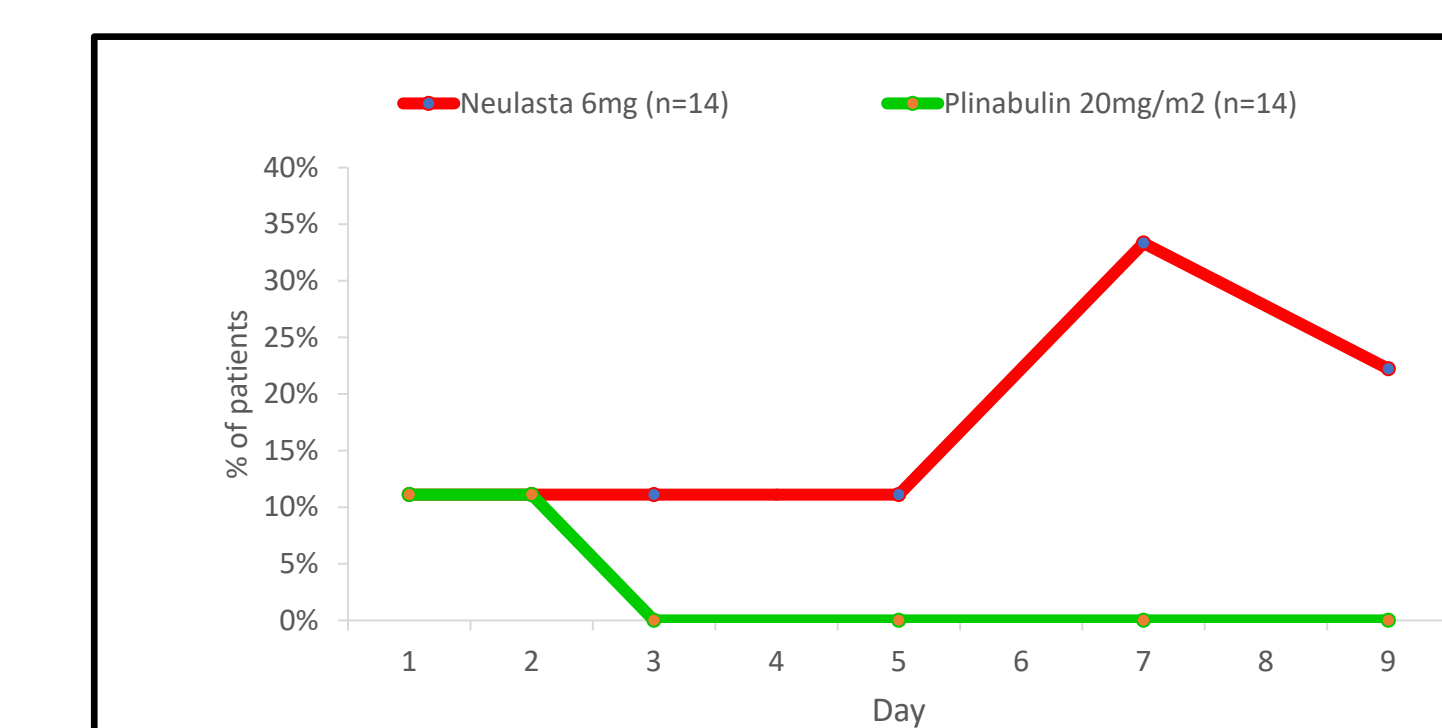
Plinabulin Has Better Quality of Life and Less Bone Pain compared to Pegfilgrastim

Quality of Life

Higher score means better QoL



Bone Pain



Plinabulin Key Messages

- Plinabulin is NOT a -G-CSF
Plinabulin is currently given as a fixed 40 mg dose
- Plinabulin is given on Day1: The Same Day of Chemo, 30 min after Chemo
➤ G-CSF is given on Day 2: The Next Day after Chemo
- Plinabulin has Comparable Efficacy for Grade 4 Neutropenia, Hospitalizations, Infection Rate and Sepsis vs Pegfilgrastim
- Plinabulin has less Thrombocytopenia and less Bone Pain vs Pegfilgrastim
- Plinabulin maintains QoL, whereas Pegfilgrastim decreases QoL
- Plinabulin has Anti-Cancer Activity

Conclusion

- The Same Day Dosing on the Day of Chemo Reduces Health Care Touches with 50% with Plinabulin vs Pegfilgrastim
- Plinabulin and Pegfilgrastim Have Comparable Efficacy for CIN and Clinical Sequelae of CIN but a Superior Profile for Bone Pain, QoL and Platelet Counts.

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We have initiated an Expanded Access Program (EAP) to make Plinabulin available to Physicians/ Oncologist. If interested, please contact us at: EAP@beyondspringpharma.com

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