Identify unmet needs for improving care for patients with chemotherapy-induced neutropenia

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Chemotherapy-induced neutropenia (CIN) is the most common toxicity caused by the administration of anticancer drugs. In a large prospective registry, 37% of the BC patients experienced an absolute neutrophil count (ANC) lower than 500 cells/mm3 over the first 4 cycles of treatment, and approximately 70% of the initial episodes occurred in cycle 1. CIN is associated with the risk of both life-threatening infections and chemotherapy dose reductions or delays that may reduce the relative dose intensity. In addition, we found that the novel drug, ADC (Antibody–Drug Conjugates) also induces neutropenia in the clinical trials. We'll discuss the potential mechanism in the lecture.

Based on review of the data, the NCCN & ESMO Guidelines recommend FDA/EMA approved biosimilars as appropriate substitutes for originator filgrastim, pegfilgrastim for treatment of chemotherapy-induced neutropenia. In fact, market share of pegfilgrastim biosimilar is 75% and 70% in the U.S. and EU respectively, but only 5% in Taiwan.

In Taiwan, biosimilars are priced about 30% less than the originator product, so introduction of biosimilars savings can be used to fund new therapies and improve patient access to biologics. A biosimilar is a biological product that is highly similar to the FDA/EMA approved originator product with the exception of minor differences in clinically inactive components and no clinically meaningful differences in efficacy, safety, and purity. How to increase biosimilar market share in Taiwan? Firstly, Health care systems should offer more financial incentive programs to promote the prescription of biosimilars. Secondly, medical associations can help promote biosimilars via recommendations and guidelines. Thirdly, patient education on biosimilars and clinical trials is needed for patients to be able to make informed decisions about biosimilar use.