

Hematologic Toxicities

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Hematologic toxicities

- Common treatment complication for both hematological and non-hematological drugs
- May lead to dose reduction or discontinuation
- Vary in timing and severity (CTCAE grade). Shift tables used in clinical trials to account for baseline counts

Spectrum

- May affect: WBCs, RBCs, platelets or the coagulation system
 - Cytopenias: anemia, leucopenia, thrombocytopenia
 - Cytosis: leukocytosis, polycythemia, eosinophilia
 - Thrombo-embolic events
- Type of toxicity depends on specific effect of drug

Drug-Induced Hematologic Syndromes

- Mediated by a variety of mechanisms. Drugs can induce almost entire spectrum of hematologic disorders including:
 - Immune & Non-immune Hemolytic Anemia
 - Thrombotic microangiopathies (TMAs)
 - Hypercoagulability - arterial & venous thrombosis
 - Myelodysplasia & acute myeloid leukemia (AML)



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