

NRTI Toxicity

NRTIs are medications that inhibit reverse transcriptase activity in HIV. This drug class leads to several toxicities, such as bone marrow suppression, rash, neuropathy, lactic acidosis, pancreatitis, and anemia.



PLAY PICMONIC

Bone Marrow Suppression

[Bone Arrow Suppressed](#)

NRTI medications lead to bone marrow suppression, but this side effect can be reversed with erythropoietin and granulocyte colony-stimulating factor (G-CSF).

Reverse with G-CSF and Erythropoietin

[Reverse with Granny-stimulating-granulocytes and Red-earth-Putin](#)

The bone marrow suppression seen with NRTIs can be reversed with administration of granulocyte colony-stimulating factor (G-CSF) and erythropoietin. Erythropoietin is a hormone that increases the production of red blood cells, while G-CSF promotes proliferation and differentiation of precursor cells into mature granulocytes.

Rash

[Rash](#)

The NRTI medications zidovudine and abacavir can lead to rash and skin disorders. Patients complain of hypersensitivity rash, along with patches of hyperpigmentation.

Neuropathy

[Wavy Neuron-guy](#)

Most drugs in the NRTI class can lead to peripheral neuropathy in patients.

Anemia

[Anemone](#)

As these drugs lead to marrow suppression, providers should be aware that patients can be anemic. Blood labs should be monitored in patients taking NRTIs.

Pancreatitis

[Pancreas-on-fire](#)

The NRTIs didanosine and lamivudine may cause pancreatitis, especially with concomitant alcohol ingestion.

Lactic Acidosis

Like of Acidic-lemon

NRTI medications are associated with lactic acidosis, and patients should be educated on the effects and presentations of metabolic issues while taking these drugs.