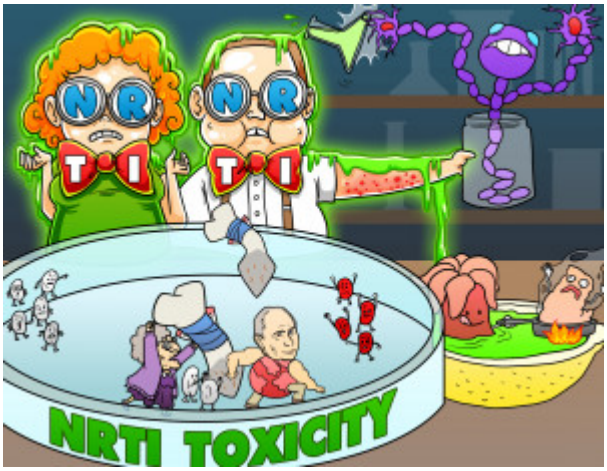
NRTI Toxicity

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

Lake 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.