

Radiation Toxicity (Acute Radiation Toxicity)



Diarrhea

Toilet

Diarrhea can occur a few hours after exposure. Death can be seen two weeks after exposure due to infection, dehydration, and electrolyte imbalance.

Nausea, Vomiting

Vomiting

Nausea and vomiting are one of the earliest signs of radiation toxicity. Symptoms of GI can appear if the radiation dose exposure is ≥ 10 Gy (≥ 1000 rads), but some can manifest as low as 6 Gy or 600 rads.

Neurovascular

Altered Mental Status

Nerve-guy with Altered-brain

Altered mental status as a part of CNS syndrome can appear in patients with a dose exposure of 50 Gy (5000 rads), but it can also be manifested as low as 20 Gy or 2000 rads.

Evaluation

Absolute Lymphocyte Count

Absolute Lime-lymphocyte Count

Repeat CBC analysis is needed by checking the absolute lymphocyte count, represented by the exact or absolute number of cells instead as a percentage. The analysis is repeated every 2 to 3 hours for the first 8 to 12 hours after exposure and every 4 to 6 hours for the following 2 or 3 days. The Andrews Lymphocyte Nomogram is used to check the sequential changes in absolute lymphocyte counts over time.

Treatment

Supportive Care

Supportive IV Bags

Supportive care is important in treating radiation toxicity because it can save lives. These may include fluid management and early detection and treatment of any infection. Patients also should be disrobed and bathed because it reduces exposure to 80%.