

Time/Dose Effects in Acute Radiation Syndrome - Acute Clinical Effects of Single-Dose Exposure of Whole-Body Irradiation

Symptoms/Signs for Dose Range 30.0 to 45.0 Gy in Free Air

Symptoms/Signs	Hours						Days							Weeks												
	4	8	12	16	20	24	2	3	4	5	6	7	2	3	4	5	6	7								
Nausea														100%												
Vomiting (retching)														100%												
Anorexia														100%												
Diarrhea (cramps)														100%												
Fatigue														100%												
Weakness														100%												
Hypotension														100%												
Dizziness														100%												
Disorientation														100%												
Bleeding																										
Fever							50-90% (a)																			
Infection														(b)												
Ulceration																										
Fluid loss/electrolyte imbalance														100%												
Headache														100%												
Fainting														100%												
Prostration														100%												
Death														100%												
<p>Severity Scale</p> <table border="0"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>unspecified or mild</td> <td>mild to moderate</td> <td>moderate to severe</td> <td>severe</td> </tr> </table> <p>Colors used to improve visualization only.</p>																							unspecified or mild	mild to moderate	moderate to severe	severe
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<p>Management and Treatment</p> <p>Performance:</p> <ul style="list-style-type: none"> DT:PD from 6 to 20 minutes; PD from 20 to 90 minutes; CI from 90 minutes to death. UT:PD from 30 minutes to 3 hours; CI from 3 hours to death. <p>Hospitalization Percentage/Duration</p> <ul style="list-style-type: none"> At 6 hours to 1-2 days medical care for 100%; 100% deaths at 2 to 4 days. Symptomatic medical care will be required within the first hour. <p>Therapy</p> <ul style="list-style-type: none"> Supportive treatment. 																										
<p>(a) Granulocyte count drops to zero. (b) Lymphocyte count drops to zero.</p> <p>CI = Combat Ineffective (less than 25% performance) PD = Performance Degraded (25-75% performance) DT = Demanding Task UT = Undemanding Task</p>																										

Adapted from NATO Handbook on the Medical Aspects of NBC Defensive Operations AMedP-6(B), Chapter 6, General Medical Effects of Nuclear Weapons: Diagnosis, Treatment, and Prognosis, 1 February, 1996.