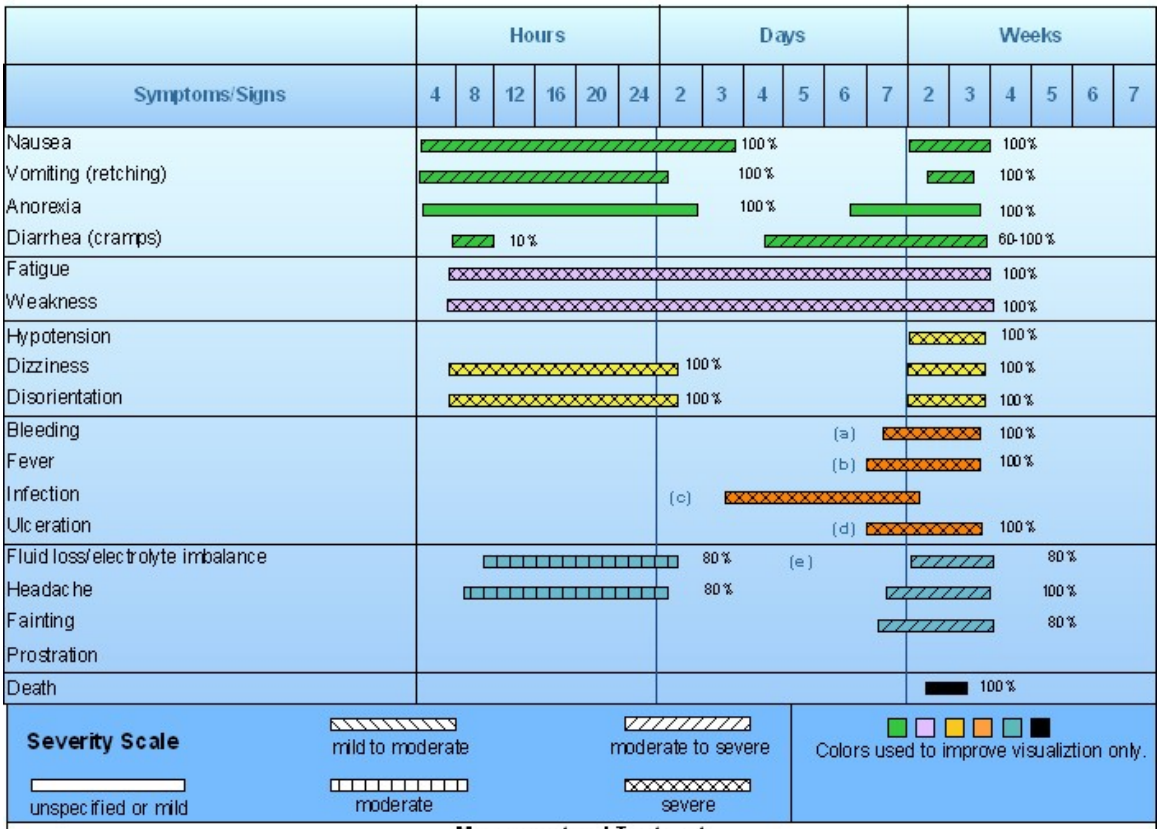
Time/Dose Effects in Acute Radiation Syndrome - Acute Clinical Effects of Single-Dose Exposure of Whole-Body Irradiation

Symptoms/Signs for Dose Range 8.3 to 11.0 Gy in Free Air



Management and Treatment

Performance:
- DT:PD from 1.5 hours to 8 hours; CI from 1 hour to 1.2 days; PD 1.2 to 10.4 days to death.
- UT:PD from 2 hours to 3 days. Combat effective 3 to 4 days; PD from 4 to 14 days; CI from 14 days to death.

Hospitalization Percentage/Duration
- 4 to 6 days medical care for 100%.
- 100% deaths at 2 to 4 weeks

Therapy
- Maintenance of electrolyte balance plus treatment recommended for lower doses.

(a) Platelet count drops nearly to zero.
(b) Granulocyte count drops nearly to zero.
(c) Lymphocyte count drops nearly to zero.
(d) Epilation.
(e) Moderate intestinal damage.

CI = Combat Ineffective (less than 25% performance)
PD = Performance Degraded (25-75% performance)
DT = Demanding Task
UT = Undemanding Task

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.