Assess "Estimated Whole Body Absorbed Dose": 2 options

"Absolute Lymphocyte Count" (x 10^9 cells/L): (1)
from CBC drawn "x" hours after exposure began

Assess Time to Vomiting

Cytokine Dosing Guideline: normal supply availability

RITN: CYTOKINE ADMINISTRATION TRIAGE GUIDELINES FOR ARS—ASSUME CONSTRAINED RESOURCES
ADULT AND PEDIATRIC RECOMMENDATIONS

(1) Note each patient’s "absolute lymphocyte count" and/or "time to vomiting" at specific "time after exposure began".

(2) Using data above, read horizontally across for "estimated whole body dose range" in units of Gray.

(3) Using "estimated whole body dose range", read horizontally across for "treatment category" recommendations.

IMPORTANT CONSIDERATIONS
- Co-morbidities may alter survival and may be considered if resources are limited.
- If cytokines are not available, consider antibiotics.
- Time zero is time exposure began and second is time when blood is drawn.
- If patient has >20y estimated rad. dose with combined injuries (>20% Total Body Surface Area) see Figure 2 in Trauma & Combined Injury by Coleman, C. N., et. al. in link below.
- Patients with H+ GY exposure should consider cytokines if there are supplies available.

COMMENTS

- FDA Inserts for additional details related to pediatric dosing and adverse event information (dosing for H-ARS determined based on the Animal Rule):
  - Filgrastim: https://www.accessdata.fda.gov/drugsatfda_docs/label/2016/103353s0186.pdf
  - Pegfilgrastim: https://www.accessdata.fda.gov/drugsatfda_docs/label/2016/125031s10064.pdf
  - Sargramostim: https://www.accessdata.fda.gov/drugsatfda_docs/label/2016/103346s5240lbl.pdf

- Dose reconstruction has many complicating factors; in particular when to start counting exposure time, calculation of handling gaps in exposure (i.e. due to sheltering in place), patient location at time of detonation and the dose rate along the patients path through contaminated areas (for more information see https://www.remm.nlm.gov/dosereconstruction.htm).
- 24, 46, 96 hours Radiation dose estimates from Medical Management of ARS by Waseilenko, J. K. et. al. see Comments.

More detailed tools for dose estimation
- REMM dose estimator from absolute lymphocyte count or time to vomiting: https://www.remm.nlm.gov/ars_wbd.htm


Adapted by REMM from RITN Version 09/2020