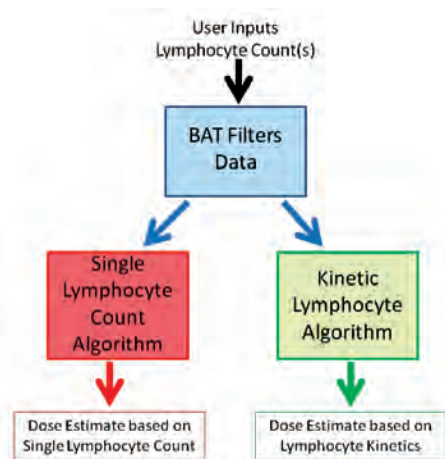


## Latest Algorithms Enhance Radiation Dose Prediction

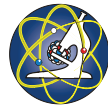
BAT version 1.04 contains the latest AFRRRI-developed, radiation dose-predicting algorithms:

- Single lymphocyte count
- Lymphocyte depletion rate
- Time from exposure to time of onset of emesis

The algorithms consider the influence of the normal range of lymphocyte counts. They are based on a combination of data sets from human radiation exposure incidents and collaboration with G.H. Anno, Veridian Systems Division; R.E. Goans, MJW Corporation and REAC/TS; and A.K. Guskova, Russian Academy of Medical Sciences. Dose assessment tools based on the BAT algorithms are available at the Radiation Event Medical Management Web site at [http://www.remm.nlm.gov/ars\\_wbd.htm](http://www.remm.nlm.gov/ars_wbd.htm), supported by Health and Human Services and the National Library of Medicine.



## Get BAT



### Request BAT online

AFRRRI Web site

<http://www.afrrri.usuhs.mil/outreach/request.htm>



### Receive BAT at the MEIR Course

AFRRRI Medical Effects of Ionizing Radiation Course

<http://www.afrrri.usuhs.mil/outreach/meir/meir.htm>

## Find Other Resources

### Medical/operational guides at

<http://www.afrrri.usuhs.mil/outreach/guidance.htm>

Medical Management of Radiological Casualties Handbook

Emergency Radiation Medicine Response, AFRRRI Pocket Guide

### Biodosimetry tools at

<http://www.afrrri.usuhs.mil/outreach/biodostools.htm>

First-responders Radiological Assessment Triage Software

AFRRRI Adult/Pediatric Field Medical Record

AFRRRI Biodosimetry Worksheet

Radiocesium RDD Patient Initial Contact Worksheet

## Contact Project Manager

Mail: AFRRRI

ATTN: BAT Project Manager  
8901 Wisconsin Ave., Bldg. 42  
Bethesda, MD 20889-5603

Phone: 301-295-0484

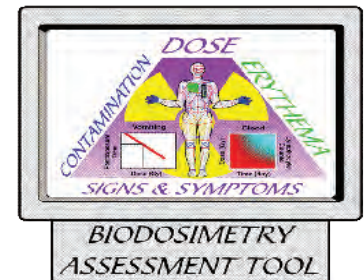
Fax: 301-295-1863

E-mail: [BATProjectManager@afrrusuh.s.mil](mailto:BATProjectManager@afrrusuh.s.mil)

Cleared for public release; distribution unlimited  
May 1, 2010

# Biodosimetry Assessment Tool

Version 1.04 for health-care providers and emergency responders managing radiation casualties



Record radiation exposure  
Estimate dose  
Archive data  
Deliver diagnostic information

# CHALLENGE



Sound medical treatment decisions for individuals who may have been exposed to radiation require the collection of relevant data. BAT provides one option for this purpose to assist first responders and medical professionals on the scene of a radiological or nuclear incident, which may involve mass casualties.

The appropriate use of medical resources will depend on timely, accurate dose information so as to differentiate between the concerned public (those who mistakenly believe they were exposed) and exposed individuals.

The most effective approach will allow for the recording, accessing, editing, and archiving of data using multiple bioassays and an integrated approach.

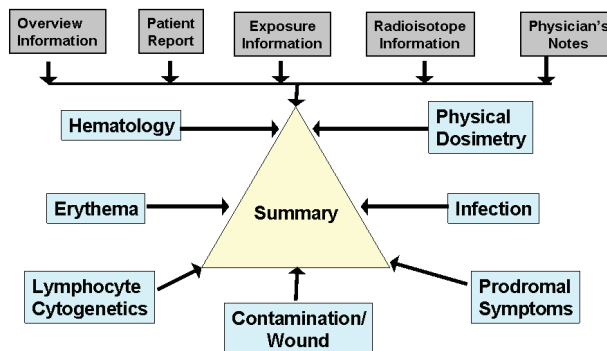
The BAT program is NOT a substitute for treatment decisions by physicians and other trained health-care professionals.

# SOLUTION

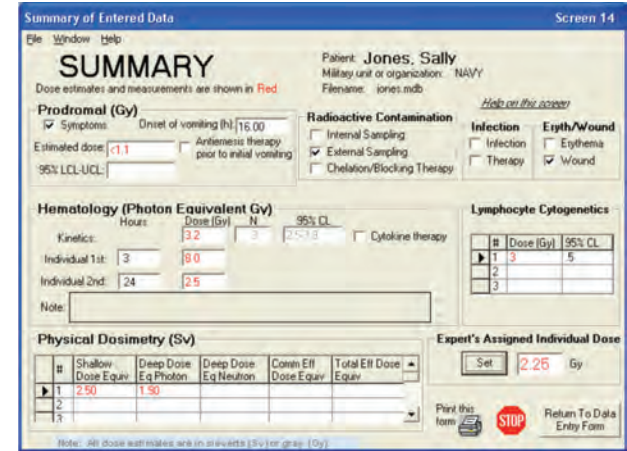
The BAT software, intended for use by licensed professionals, delivers diagnostic information to health-care providers managing radiation casualties.

Scientific explanations, background information, and program assistance are provided by the following features:

- Body Section Selector: Pick the exact location of the patient's dosimeter, external contamination, and erythema or wounds.
- Calendar: Select the date, month, year.
- Dosimetry Information: Select from among the U.S. military's 16 most common dosimeters with range and sensitivity facts.
- Temperature Entry: Either Fahrenheit or Celsius.
- Context Sensitive Help menu: Access resources from the top of every screen.



# BENEFITS



- Displays diagnostic and therapeutic information and an expert's assigned individual dose on the Summary screen.
- Promotes rapid data collection for prompt use after a radiation exposure incident.
- Provides diagnostic information using multiparameter indices for managing radiation casualties.
- Records additional related clinical information (e.g., extent of contamination, wounds, infection) necessary for proper medical care.
- Archives collected data for later use in radiation protection matters.
- Complies with NATO STANAG 2472, NBC/MED: Determination and Recording of Ionizing Radiation Exposure for Medical Purposes.
- Runs on Windows XP with at least 512MB ram.