I. PRINCIPLE

As a member of the Radiation Injury Treatment Network (RITN), the Bone Marrow Donor Program whose Donor Center and Apheresis Center are located at the Blood Center and in collaboration with the National Marrow Donor Program has agreed to participate in a response to an incident resulting in Hematopoietic toxicity on a large scale. A plan for continued operations under adverse conditions is essential for an effective response.

II. PURPOSE

The purpose of this procedure is to provide instructions for continuity of operations in the event of an emergency and coordination of operations, including arrangements for collection through bone marrow harvesting or collection of product through Apheresis, arrange processing of product, delivery to transplant centers through coordination of couriers, and temporary storage of product, under adverse conditions.

III. SCOPE/RESPONSIBILITIES

This SOP addresses coordination of operations. For use of specific emergency communication devices, refer to the appropriate job aid and manuals.

For emergency contact numbers, consult the Blood Center’s Emergency Guide and/or the RITN Contact List Job Aid.

It is the responsibility of all available qualified personnel, following the chain of command established by the Blood Center’s Emergency Operations Plan (EOP) Divisional Organizational Chart, to ensure continuity of operations.

IV. REFERENCES

RITN Treatment Guidelines
RITN Contact List Job Aid
Blood Center Emergency Operations Plan
Blood Center Emergency Guide
Blood Center Safety Practices
Bone Marrow Donor Program Standard Operating Procedures Manual

V. MATERIALS

Materials required for bone marrow harvesting or collection of product through Apheresis, arrange processing of product, delivery of bone marrow to transplant centers, and temporary storage of product are addressed in the respective procedures.

If normal communications are disrupted, the following devices may be necessary:

Government Emergency Telecommunications Service (GETS) Card
Satellite telephone
800 Mhz telephone
ARES/HAM Radio - Consult Emergency Guide for contact information of licensed users
A remotely located computer with wireless internet access
- It may be necessary to access the Blood Center electronic communications from a remote site using a PC through the Citrix server.

Mobile telephone
Text messaging

These Blood Center forms and all appropriate and newest versions of NMDP forms shall be utilized during a radiation event/disaster:

**Forms**

1. Bone Marrow Donor Program Log
2. Bone Marrow Sample Request Form
3. Bone Marrow Donation Information Session Outline
4. NMDP Stem Cell Donor Worksheet
5. Filgrastim Dose Verification Form
6. Stimulated Peripheral Blood Stem Cell (PBSC) Donation Information Session
7. NMDP Donor Post-Donation Instructions
8. Information for NMDP Donors (ID Testing and West Nile Virus)
9. External Agency Training Checklist
10. Radiation Exposure History and Release of Information
11. Notice of Contamination
12. Emergency Incident Commander
13. Liaison Officer
15. Activity Log
16. Section Personnel Time Sheet
17. Staff Inventory
18. Staff Sign In/Sign Out Log
19. Volunteer Staff Registration/Credentialing Form
20. Status/Projection Report
21. Request for Individual Testing

**VI. QUALITY CONTROLS**

All of Bone Marrow Donor Program staff will receive periodic training in emergency response procedures which includes NMDP Basic Radiation Training.

**VII. SAFETY CONTROLS**

Refer to Blood Center Safety Practices SP 1600 Series: Radiation Safety Plan
Refer to Blood Center Emergency Operations Plan SP 2001 Series: Emergency Response

**VIII. METHOD**

1. If a regional or national emergency occurs, Blood Center Bone Marrow Donor Program Supervisor, in cooperation with the Director of Clinical Services, is responsible for maintenance of Bone Marrow and Peripheral Blood Stem Cell Services.

   NOTE: Our Blood Center is located in FEMA Region V.
2. The Director of Clinical Services or designee:
   a. Determines how the nature and scope of the incident affects departmental operational capacities.

3. The Bone Marrow Donor Program Supervisor or designee:
   a. Assigns available staff as appropriate.
   b. Establishes communications with the RITN center and the National Marrow Donor Program (NMDP). If a dial tone is available, use of the GETS card will enable contact with RITN center. If no dial tone is available, use the satellite telephone.
      i. Contact information for RITN:
         612-884-8276
         ritn@nmdp.org
      ii. Provides a summary of operational capacities to the RITN center and determine how bone marrow donor operations may be useful in the response.

4. Maintains communications with RITN and provides Center Status Reports to RITN every 24 hours via the Web Emergency Operations Center EOC (WebEOC). It may be necessary to utilize a remotely located computer.

5. Maintains communications with all Blood Center satellite locations and mobile units during drive, search and workup activities.

6. If the nature of the emergency calls for increased rates of bone marrow or peripheral blood stem cell collection and processing then:
   a. The Director of Clinical Services or designee:
      i. Notifies cooperating medical institutions:
         Hospital A
         Address
         Phone number
         Hospital B
         Address
         Phone number
         Hospital C
         Address
         Phone number
      ii. Assigns qualified internal staff members required for:
         • Donor drives, search and workup activities
         • Donor blood draws and sample laboratory processing assignments
         • Donor physical examinations
         • Donor Filgrastim injections
         • Donor apheresis procedures
      iii. Contacts medical personnel at appropriate participating facilities required for:
         • Donor blood draws and sample laboratory processing
         • Donor physical examinations
• Donor Filgrastim injections
• Donor bone marrow harvesting procedures

b. In the event of an emergency, the Director of Clinical Services or designee will evaluate and determine staff work capacity and priority for:

i. Drive Activities

BMDP Specialists or designee(s):
• Coordinate with Donor and Volunteer Recruitment to establish available volunteers for drives.
• Assess supply quantities in warehouse, mobile units and satellite centers to utilize if supplies are not available to be shipped from NMDP.
• Enter drive into StarLink or, in the event that StarLink software is non-operational, fax or telephone information to NMDP.
• Prepare drive kits or oversee preparation of kits by Bone Marrow Donor Program volunteer.
• Coordinate delivery of drive kits to internal staff or external volunteers.
• Receive kit upon completion of drive or arrange for kit to be delivered via internal or external transportation methods outlined.
• Review consent forms and send for OCR scanning at NMDP or, in the event that the system is non-operational, enter information into StarLink.
• Forward buccal swabs to NMDP.

Limitations may include insufficient number of volunteers, exhaustion of supplies and/or Internet failure due to radiation disaster. If Internet, telephones, faxes, email or other means of communication is interrupted, utilize paper formats for all required forms and forward when communication is re-established or enter into StarLink when connection is re-established.

ii. Search Activities

BMDP Specialists or designee(s):
• Review donors requested for additional testing via StarLink or contact via telephone, fax, or email with Call Back Unit at NMDP
• Contact requested donors for CT, DR, HR
• Make appointments for blood draws at the Blood Center satellite centers or other providers, if available.
• Coordinate transportation to take draw kits and/or instructions to centers or available providers through couriers or runners.
• Arrange for all aspects of recording barcodes utilized for testing.
• Coordinate with the Blood Center laboratories or external available laboratories for testing of samples.
• Coordinate recording of laboratory results on internal tracking software and StarLink database.
• Provide files to Donor Coordinator or designee(s) if donor is requested for workup.
• Train and oversee volunteers or available staff in preparing blood testing tubes and paperwork as delegated by Specialists with BMDP Supervisor's oversight.

Limitations may include limitation of procedures by trained staff and equipment available, exhaustion of warehouse stocked supplies, laboratory prioritization for blood donation IDM.
testing, Internet failure due to radiation disaster. If Internet, telephones, faxes, emails or other
means of communication with NMDP is interrupted, utilize paper formats for all required forms
and forward when communication is re-established or enter into StarLink when connection is
re-established.

iii. Workup Activities

Donor Coordinator or designee(s):
• Review donors requested for either Peripheral Blood Stem Cell or Bone
  Marrow donation.
• Acknowledge workup status via StarLink or contact with Search Coordinating
  Unit via telephone, fax or email at NMDP.
• Contact donors for PBSC or Marrow harvesting.
• Arrange for group information sessions with internal physicians and BMDP
  Supervisor.
• Arrange any housing needs for donors.
• Arrange for physical examinations by internal physicians (3) or external
  physicians.
• Train and oversee volunteers or available staff in preparing blood testing tubes
  and paperwork as delegated by Donor Coordinator with BMDP Supervisor's
  oversight.
• Coordinate all blood samples/supplies/needed materials/paperwork for physical
  examinations going to and being returned from physician, either through
  internal courier or runner.
• Arrange for all aspects of recording barcodes utilized for testing.
• Log all testing samples in the Blood Center internal tracking software.
• Coordinate with the Blood Center laboratories or external available laboratories
  for testing of samples:

  Laboratory locations:

  Laboratory A
  Address
  Phone number

  Laboratory B
  Address
  Phone number

  Laboratory C
  Address
  Phone number

• Use of NMDP centralized laboratories can be coordinated if no local options
  are available.
• Coordinate recording of laboratory results on internal BBCS tracking software
  and laboratory and physical exam results in StarLink database.
• Contact NMDP Search Coordinating Unit with donor clearance in any available
  communication method.
Limitations may include limited quantity of procedures by trained staff and equipment available, lack of available physicians, surgeons and other medical personnel, laboratory prioritization for blood donation INNT testing, exhaustion of warehouse stocked supplies, Internet failure due to radiation disaster. If Internet, telephones, faxes, email or other means of communication with NMDP is interrupted, utilize paper formats for all required forms and forward when communication is re-established or enter into StarLink when connection is re-established.

iv. Collection – Apheresis:

Apheresis procedures shall take place in the Patient Services Unit at:

PBSC Collection Site
Address
Phone number

5-6 apheresis procedures can be performed in a 24-hour period.

vi. Blood Collection Services Department in the Blood Center’s central location may be utilized to collect samples for testing if prioritized by the Medical Director or designee.

vii. If radiation event is local, Director of Clinical Services or designee may cancel donor drives until it is deemed reasonable for them to resume.

d. Methods of staff notification during non-working hours:
   - Emergency Alert System
   - Staff communication emergency telephone number: 1-234-567-8901
   - Blood Center Directors, Managers and Supervisors
   - Local television and radio stations

e. Staff work shifts:
   i. Work shifts for each non-exempt, permanent Bone Marrow Donor Program staff members assigned to search activities will be modified/adjusted for each to cover 8 consecutive hours. Work shifts for one salaried non-exempt and one exempt, permanent Bone Marrow Donor Program staff members assigned to work-up activities will be modified for each to cover 12 consecutive hours.
   ii. Staff will track hours worked through personnel timesheets.

7. Concept of operations: Once notified by RITN of a Hematopoietic toxic event (HTE) the Clinical Services Director, Bone Marrow Donor Program Supervisor, and/or designee will perform the following:
   a. Notify center staff of the event and the possibility of increased activity.
   b. Notify appropriate support organizations:
      i. Contracted hotels to house donors in work-up or collection:
         Hotel A (existing account)
         Address
         Phone number
         Hotel B (existing account)
         Address
         Phone number
      ii. Transportation for donors:
         Blood Center vans and mobile units
         Cab company A (existing account)
         Address
         Phone number
         Angel Flight – West (existing account)
         3161 Donald Douglas Loop South
         Santa Monica, CA 90405
         (888) 4-AN-ANGEL
         Aviation courier Company B (existing account)
         Address
         Phone number
         Car Rental (existing account)
         Address
         Phone number
         Staff and volunteer vehicles
iii. Potential volunteers to assist will be contacted by the Donor and Volunteer Recruitment department or Bone Marrow Donor Program Specialists.

c. Review supply inventory and order additional where needed:

i. Drive activities:
   1. NMDP Recruitment Tools
   2. Kit Boxes
   3. Consent Forms
   4. Swabs
   5. Barcode Labels
   6. Eligibility Signs
   7. Vinyl Cash Envelopes
   8. Shipping Supplies

ii. Search activities:
   1. Forms
   2. Kit Boxes
   3. Plastic Bags
   4. Surgical Gloves
   5. Blood Tubes
   6. Barcode Labels
   7. Shipping supplies

iii. Workup Activities:
   1. Forms
   2. Blood Tubes
   3. Lab Coats
   4. Surgical Gloves
   5. Barcode Labels
   6. Filgrastim
   7. Product Bags and Product Labels
   8. Shipping supplies

iv. Additional supplies available through Patient Services Unit.

v. Emergency supplies available at all satellite locations.

d. Participate in periodic emergency drills and war games coordinated through the Blood Center.

e. Participate in required NMDP RITN and emergency drills.

f. Report to RITN center status every 24 hours in accordance with the Center Status Report.
   i. Center Status Report is located in the Transplant Center Manual of Operations

   ii. Through faxed status report: Fax number 612.627.5894

   iii. WebEOC interface:
   https://www.aireoc.com/NMDP7

IX. APPENDIX
1. The Blood Center BMDP RITN Emergency Activities Outline
2. Patient Services Supply Listing
3. Emergency Supply Storage Locations