Volume 3, No. 12 National Domestic Preparedness Office Newsletter September 2001

The Beacon

BY AND FOR EMERGENCY RESPONDERS

CONTINGENCY PLANNING FOR THE FORENSIC ODONTOLOGY ROLE IN A MEDICAL DISASTER PART II OF II

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Editor's Note: This piece is the second and final installment of an article that appeared in the August 2001 issue of The Beacon.

EQUIPMENT

Some expendable supplies will be readily available in the morgue operation and some equipment will be specific to the dental procedures. Dental supplies and equipment, infection control materials, radiographic equipment and supplies, photographic equipment and supplies and administrative supplies should all stand ready to go at a moment's notice (Table 2.) Supplies used in a forensic identification mission are essential and should not be available for routine access by the clinic. Once established as a "go-kit" the supplies should be only be accessed for forensic mission. Good lighting equipment is crucial to accurate postmortem dental charting and yet the lighting in the morgue is rarely equal to the standard dental unit. Headlights provide the best visibility. Goose neck lamps and flashlights are less desirable, but may be adequate. Mobile radiographic equipment and supplies should be kept stocked, calibrated and checked regularly. Radiation hygiene must be considered. Lead aprons or mobile lead screens may be needed to safely operate radiographic equipment in the morgue facility. Radiographic developing equipment is key to a timely and accurate mission and must be carefully coordinated. Coordination between the morgue location and the developing equipment is crucial. Discrete transport of radiographs between the morgue and the clinic may be necessary. Personnel must understand the importance of avoiding commingling of postmortem radiographs, particularly at the developing and mounting station. Some adjustment of radiographic technique may be needed to insure diagnostic quality radiographic records of postmortem remains.[10]

Infection control procedures must be followed in accordance with the Centers for Disease Control and Prevention (CDC) recommendations for dentistry and the necessary supplies included in the "go-kit". The practice of universal precautions and barrier protection applies to morgue procedures. Equipment that is shared between the morgue and the clinic must be disinfected or sterilized according to CDC recommendations. Personnel operating in both the clinic and the morgue must be particularly careful to avoid carrying contaminated equipment or supplies into clean areas.

The protection of health and safety of the dental team must be assured. Chemicals must be utilized in a safe manner according to the guidelines of the Occupational Safety and Health Administration (OSHA.) Radiation protection must be monitored and maintained.

TRAINING

Mass casualty exercises are trained throughout the AMEDD system, but what happens when a "casualty" dies? Usually, the casualty-player is finished with the exercise at that point. Too often, mass casualty exercises fail to include fatality management. Further, even if the medical team includes fatality management in the exercise, the dental team may not be included. Yet training for forensic dental identification is a crucial aspect of

preparedness for response to a medical disaster. Participation in hands-on exercises and the groundwork that precedes an exercise provide a very effective means of training. On the job training or apprenticeship is also important as discussed by Brannon and Kessler.[7] In addition to the technical skills, training exercises may identify weak areas in disaster plans. For example, the planned workspace may be too small for the team, or the work area may not maintain the quiet and privacy that is needed for charting and comparison of dental findings. Training is the foundation of excellent performance under difficult circumstances.

Formal training courses are offered at various sites throughout the year (Table 4.) Weeklong courses are offered by both military and civilian centers that provide the fundamental information and are often augmented by a laboratory "hands on" scenario. Current policy supports formal training in forensic identification methods. U. S. Army Dental Command (DENCOM) Policy Letter 99-22, Training in Wartime Emergency Medical Treatment includes one hour training in forensic dental identification as part of the curriculum. DENCOM Policy Letter 99-12 advocates short course training for the appointed forensic dental officer, such as is offered by the Armed Forces Institute of Pathology Department of Oral and Maxillofacial Pathology.

Training for forensic identification includes both individual education and team exercise experience. Informal training and practice during mass casualty training as implemented by the hospital offers an opportunity to improve skills and identify areas of weakness. Priority training should be give to the dentist locally appointed as responsible for forensic dental identification missions. That person is then able to return to the unit and provide annual required training for others. Smaller forensic missions, involving one or two casualties, offer an opportunity to include personnel without prior experience working alongside those with more experience. Consideration must be given to this mentoring for both dental and auxiliary staff as team building and as educational experience.

Training as part of preparedness for a medical disaster is an ongoing process. Coordination with the medical mass casualty exercises affords a realistic scenario in which to critically assess performance, equipment and coordination of the dental team forensic identification plans. Personnel changes necessitate continued updating and practice of procedures. Equipment and maintenance checks must be on a periodic cycle. After action analysis of an exercise offers opportunity for improvements. Formal training should be periodic within the unit for all personnel.

SUMMARY

Prior planning and training can facilitate smooth operation of a dental forensic team under the difficult circumstance of a medical disaster. Advance coordination of personnel and the establishment of positive liaison with all departments will significantly reduce the confusion that accompanies a medical disaster. Organization and identification of equipment, supplies, and spaces for use for use by the dental team will contribute toward a smooth team operation. Training of personnel and exercising to maintain expertise will insure the accidental does not become the unplanned. Contingency planning and preparation are the keys to an efficient, effective and professional response to a medical disaster situation.

Please see the end of this issue of The Beacon for the accompanying tables and references mentioned in this article.

COAST GUARD WMD ROLES

By Lieutenant Eric Runnels
United States Coast Guard

The United States Coast Guard, as a result of the National Contingency Plan (NCP), and several other federal laws, regulations and interagency agreements, prepares for and responds to spills of oil, hazardous substances, pollutants, or contaminants in the coastal zone that may present an imminent or substantial threat to public health or welfare and the environment. The NCP designates the Coast Guard as the Federal On-Scene Coordinator (OSC or FOSC) for emergency response in the coastal zone and these responsibilities remain with the Coast Guard whether or not the spill is intentional. The EPA fills this role for spills in the inland zone, as do certain other Federal agencies for spills on their own properties.

For a chemical WMD incident, Strike Teams will be the Coast Guard assets providing Level A response capabilities. There are three Strike Teams and these teams are located at Fort Dix New Jersey, Mobile Alabama, and Novato California. These teams are under the operational control of the National Strike

Force Coordination Center in Elizabeth City North Carolina. Strike Teams are comprised of highly skilled HAZMAT responders, each consisting of 35 active duty personnel and up to 50 reserve personnel, and respond to over 200 chemical releases per year. These teams are experts in chemical agent identification, site safety plans, decontamination procedures and mitigation techniques and procedures. An advantage Strike Teams posses is extensive familiarity with State and local responders gleaned from many years of joint operations in HAZMAT spill mitigation. Most agencies have subscribed to using common terminology and management principles by organizing under the Incident Command System (ICS).

Additionally, the Coast Guard holds a title under the Ports and Waterways Safety Act referred to as "Captain of the Port (COTP)." This Act provides the Coast Guard wide-ranging authority to protect U.S. ports, including closing of ports and waterways for the purpose of safety and security. In the event of a WMD incident in or around the coastal zone, Coast Guard COTP authorities will be central in controlling port activities.

Major responses, notably those responding to consequences of terrorist acts, may be declared disasters by the President, thereby invoking the Federal Response Plan (FRP) under the direction of the Federal Emergency Management Agency (FEMA). The Coast Guard supports both crisis and consequence management efforts to prevent or resolve a threat or act of terrorism but specifically will lead Emergency Support Function 10 (ESF 10) when impacts are limited to the coastal zone. Coast Guard ESF 10 roles and authorities during a disaster are similar to those under the NCP.

NEW STATE AND LOCAL DOMESTIC PREPAREDNESS SUPPORT HELPLINE: 1-800-368-6498

By Ms. Gabrielle Meszaros-Parada
Program Manager, Technical Assistance Program
Office of Justice Programs

The OSLDPS is the program office within the Office of Justice Programs (OJP), Department of Justice (DOJ), responsible for enhancing the capacity and preparedness of state and local jurisdictions to respond to domestic terrorism incidents involving Weapons of Mass Destruction (WMD). As part of this support, in June 2001 OSLDPS activated a "Helpline" for emergency and first responders across the United States.

The Helpline offers technical assistance in **non-emergency** cases to state and local emergency responders and public officials. It covers WMD response subjects such as: detection equipment; personal protective equipment; decontamination systems and methods; physical properties of WMD materials; signs and symptoms of WMD exposure; treatment of exposure to WMD materials; toxicology information; federal response assets; applicable laws and regulations. Also, information is available on the following services through the Helpline: WMD Training; Centralized Scheduling Capability; WMD Exercises; Equipment Grants; Nunn, Lugar, Dominici (NLD) Domestic Preparedness Program; Technical Assistance; Domestic Preparedness Equipment Technical Assistance Program; and the Domestic Preparedness Support Information Clearinghouse.

The Helpline is staffed weekdays from 9:00 a.m. to 6:00 p.m. eastern standard time. On weekends, holidays and after business hours, callers can leave a voice mail message. **Helpline: 1-800-368-6498**

LIVE RESPONSE BROADCAST: "WMD INCIDENT RECOVERY - CREATING ORDER OUT OF CHAOS"

September 26, 2001
2:00 p.m. to 3:00 p.m. ET

Sponsors: The National Terrorism Preparedness Training department of St. Petersburg College, the Department of Justice/Office of Justice Programs/ Office for State and Local Domestic Preparedness Support, the Federal Emergency Management Agency, and the Combating Terrorism Technology Support Office, Technical Support Working Group

AVAILABILITY

This free, public domain program will be available on C/KU analog satellite downlinks (those 1st generation 5-8 foot mesh or solid, steerable dishes)

still working well over 10,000 schools, community colleges, extension centers and many other locations around the country. The broadcast will also be available at selected sites on the Military/Federal CDVGETN/Convergent digital satellite networks. GETN/Convergent satellite downlinks are found at selected federal and military installations to include over 200+ Air National Guard locations at STARC HQs and Army National Guard bases. This program may also be available to a limited number of non-satellite capable sites via VTC terrestrial relay. Local site use coordination of satellite downlinks and videoconferencing rooms will be required. This program will also be webcast. Contact Ed Kronholm at 877-820-0305 with connectivity questions.

REGISTRATION

All sites are asked to register to receive satellite coordinates or illumination authentication and site support materials. Please register online at: http://www.dlnets.com/ComNet1st.htm.

PROGRAM DESCRIPTION

The Live Response program is an hour-long, live, interactive program in which a panel of experts explores topics related to WMD consequence management and engaes in question and answer sessions with the program audience through call-ins and message boards. In this broadcast, a panel of experts will explore the local, state, and federal perspectives on issues related to recovery from a WMD incident.

PROGRAM OBJECTIVES

After any disaster, a community depends on its responders to help restore a sense of order and security. Tools that responders can use to do this work include resource allocation plans, mutual aid agreements, public warning and information systems, as well as damage assessments and cost recovery operations. Learn how to improve your community's recovery plan as Live Response panelists discuss strategies for planning, coordinating, and carrying out recovery operations after a WMD incident.

WEB SITE DESCRIPTIONS

http://www.dlnets.com/ntpt_26Sept01.htm
http://terrorism.spjc.edu
Keep reading The Beacon for more information on these future CoMNEt and Live Response Programs:

October 24th - CoMNet
November 28th - Live Response - "Planning & Executing Exercises"
December 12th - CoMNET

"NATIONAL ALERT" FREE FEMA TELECONFERENCE

Date: September 13, 2001, 2 p.m. - 3 p.m. ET

Sponsors: FEMA and the Army National Guard Distributive Learning Branch

The "National Alert" FEMA teleconference is scheduled to be broadcast on the Military/Federal CDV GETN Convergent digital satellite networks. There will be no webstreaming or videocasting scheduled for this program. This taped program will not be interactive. GETN/Convergent satellite downlinks can be found at USA and USAF installations and at over 200+ Army National Guard locations at STARC HQs and Army National Guard bases. The program may also be available to a limited number of non-satellite capable sites via VTC terrestrial relay. Local site use coordination of satellite downlinks will be required.

REGISTRATION

All military and Federal sites must register for this program to receive illumination authentication and site support materials. Please register online at: www.dlnets.com/telereg.htm.

TARGET AUDIENCE

Local, State, and Federal Emergency Management personnel, National Guard POMSOs, and other interested audiences

PROGRAM DESCRIPTION

Training Feature - "Hurricane Floyd: The Floods of 1999" - This segment from the North Carolina Redevelopment Center looks at the damage from Hurricane Floyd in September of 1999 and their response and recovery efforts. While this storm did not cause significant wind damage, it dropped a record breaking amount of rain, causing the worst floods in the state's history.

Training Feature - "Nevada National Guard" - This story shows the types of assistance the National Guard provides and illustrates how they train for duty.

Training Feature - "National Fire/Emergency Services Exploring Conference" - During the week of July 4, the National Fire Academy hosted a camp for 150 Explorer Scouts from across the country. The campers competed in CPR, search and rescue, and bucket brigades.

Training Feature - "Winter Olympic Terrorism Planning" - The U.S. Department of Justice produced this tape to show how the agency is helping officials in Utah prepare to respond to a terrorist incident.

Web Site Descriptions
www.dlnets.com/fema_13Sep01.htm
www.fema.gov/emi/2001sched_a.txt

Additional Satellite Program Listings
www.dlnets.com/itv.htm#current
http://getn.govdl.org/schedule_page.htm

THE BEACON STAFF WELCOMES YOUR CONTRIBUTIONS

Do you have an idea for an article on domestic preparedness? Is your community working on a new WMD preparedness project? Why not share your thoughts and experiences with the rest of the emergency response community? *The Beacon* staff is dedicated to publishing useful and relevant information for the public safety sector. We welcome articles relating to all facets of WMD preparedness, including training, planning, exercises, equipment, health and medical, and information sharing. We also welcome suggestions on improving the newsletter.

If you wish to contribute to *The Beacon*, please contact a member of the staff at 202-324-9025, or e-mail us at ndpo@leo.gov.

CHEMICAL CORPS BULLETIN ONLINE

The Army Chemical Corps recently published *The Professional Bulletin of the Chemical Corps*, their semi-annual bulletin. This issue can be found on the Internet at http://www.wood.army.mil/CHBULLETIN/Aug01/augtoc.htm.

***The Beacon* is published monthly for members of the emergency response community. Please send articles, comments, feedback, and letters to the Information Sharing Team at the address listed below.**

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NDPO ONLINE RESOURCES:

- Helpline – ndpo@leo.gov
- Law Enforcement Online Newsgroups
- Common Communication Link
- List Serve for monthly e-mailings

For more information about these resources, e-mail us at ndpo@leo.gov.

Table 1 The dental team as part of the overall identification effort

ADMINISTRATIVE	MEDICAL	DENTAL
Inprocess	Radiology	Dental Radiology
Photography	Pathology	Dental Examination
Fingerprints	Anthropology	Antemortem Dental Charting
Mortuary	Laboratory	Dental Charting Comparison
Storage/Shipping		

Note: Antemortem dental charting and dental charting comparisons are best accomplished in a quiet area and may be separate from the postmortem examination room.

TABLE 2 Guidelines for forensic identification

Forensic dental identification guidelines **Adapted from the ABFO Body Identification Guidelines[6]**
1. Examination and documentation of dental findings of postmortem remains under the direction of the medical examiner and in compliance with OSHA guidelines. 2. Examination and documentation of antemortem dental findings. 3. Comparison of antemortem and postmortem findings. 4. Reconcile the comparison results and provide a written summary report to the ME.

TABLE 3 Supply and Equipment Checklist for Forensic “Go -kit”

DENTAL EXAMINATION	**NEED**	**HAVE**
Dental mirror		
Dental explorer		
Mouth prop		
Toothbrush		
Tissue scissors		
Irrigation bulb		
Tissue forceps		
Surgical handle		
Surgical blade		
Tongue depressor		
Cotton sponge		
INFECTION CONTROL		
Hydrogen peroxide		
Bleach		
Gloves		
Flashlight or headlight		
Batteries		
Safety glasses		
Face mask		
Scrub suit		
Shoe cover		
Overgarment		
RADIOGRAPHIC **PHOTOGRAPHIC**		

Portable Xray unit		
Xray developer		
Periapical film (double pack)		
Bitewing film (double pack)		
Film mounts		
Film envelopes		
View boxes		
Aiming devices		
Modeling clay		
Camera and flash		
Slide or print film		
Batteries		
Ruler (plain or ABFO #2)		
ADMINISTRATIVE		
Pencils, pens		
Clipboards		
Manila folders		
Large envelopes		
Antemortem forms		
Postmortem forms		
Summary report forms		
References		
Personnel roster		
Telephone numbers		

Note: Most items will fit in a carrying case or tool or tackle box. Number of items required will vary with size of mission

TABLE 4 Formal Training

Selected Training Resources for Forensic Odontology	**Web Site**
Armed Forces Institute of Pathology	www.afip.org
American Academy of Forensic Sciences, Odontology Section	www.aafs.org
American Society of Forensic Odontology	www.asfo.org

TABLE 5 Key elements of contingency planning

KEY AREAS OF PREPARATION FOR FORENSIC ODONTOLOGY MISSIONS	
LIAISION	DENTAL OFFICERS DENTAL XRAY TECHNICIANS MEDICAL PATHOLOGIST MORGUE PERSONNEL PSYCHOLOGIST
SUPPLY	PREPARE “GO KIT” IDENTIFY PORTABLE XRAY UNIT IDENTIFY XRAY DEVELOPER IDENTIFY VIEW BOXES
SPACE	IDENTIFY AREA FOR ANTEMORTEM CHARTING AND COMPARISON
TRAINING	ADVANCED TRAINING PERIODIC TRAINING EXERCISE TRAINING

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3. Moody GH, Busuttil A. Identification in the Lockerbie air disaster. Am.J Forensic Med. Pathol. 1994;15(1):63-9.

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