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19 MAR 2004

From: Executive Secretary, Navy Epidemiology Board
To: Commanding Officer, Navy Environmental Health Center
Via: President, Navy Epidemiology Board

Subj: MINUTES OF THE NAVY EPIDEMIOLOGY BOARD (NEB) MEETING OF
05-07 NOVEMBER, 2003

Ref: (a) NAVENVIRHLTHCENINST 6220.1F

Encl: (1) List of Attendees
(2) Navy Epidemiology Board Meeting Agenda
(3) EPI-RAP 03-001 Strategy Session for the Navy Preventive Medicine Community
(4) EPI-RAP 03-002 Change in Medical Event Report Data Flow
(5) EPI-RAP 03-003 Turnover of SERT Responsibilities to the NEPMUs
(6) EPI-RAP 03-004 Thermal Injury Reporting in the Navy and Marine Corps

1. The subject meeting was held at the Navy Environmental Health Center, 05-07 November, 2003, in accordance with reference (a). CDR Sherman welcomed the attendees (listed in enclosure (1)); the Minutes from the previous meeting were reviewed. CAPT Hiland, NEHC Commanding Officer, addressed the NEB members, and discussed the current opportunities to promote Preventive Medicine, given the real desire for health and wellness in Navy personnel. With current Integrated Planning Teams (IPTs) on Fitness and Wellness, Population Health, and Naval Medicine as a Defensive Weapons System, we should step forward and lead the way in Preventive Medicine (PM) program implementation.

2. **Old Business** (Previous EPI-RAPs still pending).

a. EPI-RAP 02-008: Unplanned Pregnancy Survey

NEB Recommendation: That CAPT Hayashi take the suggestion for a survey to the office of Women's Health at BUMED, and if further NEB action is needed it can be presented again to the Board.

Action required: CAPT Hayashi to discuss with office of Women's Health, BUMED.

Status: Closed

b. EPI-RAP 02-011: Review/Revise Metrics Used at NEHC BOD Meetings

NEB Recommendation: There does not seem to be much support for these prior metrics in the NEHC Front Office anymore. Directors can ask for input/review regarding future revised metrics when they are composed, and members should forward their suggestions regarding

Subj: MINUTES OF THE NEB MEETING OF 05-07 NOVEMBER, 2003

metrics to the Directors of Population Health and Occupational Medicine.

Action required: The NEB is not required to take any action regarding the metrics.

Status: Closed

3. New Business

a. EPI-RAP 03-001: Strategy Session for the Navy Preventive Medicine Community

NEB Recommendation: The NEB endorsed the concept of having a Preventive Medicine Officer (PMO) onboard Hospital Ships when they deploy; of moving a PMO billet to PACOM in Hawaii; and keeping at least 4 research billets. The Specialty Leader will conduct a survey of the PMO community, and results will be used to help develop a plan for the future of the Navy General Preventive Medicine community.

Action required: CAPT Hooker will conduct a survey of the PM community and disseminate the results.

Status: Closed

b. EPI-RAP 03-002: Change in Medical Event Report Data Flow

NEB Recommendation: Because the NEPMUs vary regarding manning available to work on MERs, there is great variation in the number of reports that reach NEHC from each NEPMU. This problem would be easily solved if reporting medical departments send their MERs to both the cognizant NEPMU and to NEHC concurrently. As NEPMUs are the responders, they should not be bypassed in the reporting chain.

Action required: NEPMUs should contact all units in their AORs and ask them to add NEHC as an email addressee on their MER electronic messages.

Status: Closed

c. EPI-RAP 03-003: Turnover of SERT Responsibilities to the NEPMUs

NEB Recommendation: Some of the Smallpox Emergency Response Team responsibilities overlap with the Chem-Bio response mission of the NEPMUs, but the NEPMUs do not have the breadth of personnel and specialties that the major MTFs do. Further clarification of the mission of the SERT is required before any recommendations can be made.

Action required: CAPT Kilbane, BUMED M3F4, will take for further study, and report information back to the NEB.

Status: Open

Subj: MINUTES OF THE NEB MEETING OF 05-07 NOVEMBER, 2003

d. EPI-RAP 03-004: Thermal Injury Reporting in the Navy and Marine Corps

NEB Recommendation: Endorsed the recommendation to clarify reporting method requirements – the Safety Center will always continue to collect their data, but NEHC should not expect reporting of heat injuries to both the Occ Med and Prev Med directorates by different methods.

Action required: Recommend to CO NEHC that he direct the Occupational and Environmental Medicine (OEM) directorate to stop using/requiring the paper form for heat injury reports, and refer all units to report electronically according to the Medical Event Report Instruction, BUMED Instr 6220.12A

Status: Closed.

4. Administrative Business

a. Presentations to the Board.

1) CAPT Kilbane, MC, USN, briefed BUMED M3F issues. There is increased interest at ASD-HA in Deployment Health issues, where Colonel John Gardner, United States Army, heads the Deployment Health office. There is emphasis on “Jointness”, meaning more uniformity, to encourage the services to do things the same way. Individual Medical Readiness, originally conceived to give a Commander insight into his personnel’s readiness, has now become a metric at Department of Defense (DOD) level, with quarterly reports required. M3F hopes to get the Immunization Note released by December, 2003. Post Deployment Health Assessments (PDHA) are important, and DOD is now requiring a PDHA quality assurance program to be followed and tracked. BUMED is considering recommending that HIV testing be done every two years for Navy personnel.

2) CDR McMillan, MC, USN, briefed Headquarters-United States Marine Corps issues. The malaria outbreak in Liberia and lessons learned remains an important concern. Deploying medical departments would benefit from having malaria rapid test kits (e.g. Binex) available. The prevention message to MEU commanders needs to be stressed, as well as a policy statement from Commanding Generals requiring malaria prevention activities. Sports Medicine and Injury Prevention is ongoing at Marine Corps Recruiting Depots Parris Island and San Diego, and Camp Lejeune and Quantico bases.

3) CAPT Rudolph, MC, USN, director of NEHC OEM, described some changes desired for the Asbestos surveillance program, that is currently still doing about 12,000 chest radiographs annually. They are also working on Occupational Medicine issues in CHCS-II, heat stress reporting methods, and injury prevention to reduce lost workdays in conjunction with the NEHC Population Health Directorate.

4) CAPT Bohnker, MC, USN, director of NEHC Population Health will soon brief the Surgeon General on progress of the Fitness and Wellness IPT, a milestone-two decision brief. There is talk of desire for environmental sampling to be done all over the world, anywhere DOD

Subj: MINUTES OF THE NEB MEETING OF 05-07 NOVEMBER, 2003

personnel deploy, which he believes is unrealistic with current resources.

5) CAPT Hooker, MC, USN, the PM Specialty Leader, briefed that he would like input for collaborative decisions regarding the future direction of Navy preventive medicine. He discussed the plans for increasing the number of Navy ships, reductions in personnel, Sea Power 21, Base Realignment and Closure, and THCSRR. Current priority must-fill billets for PM include the NEPMUs, MEFs, BUMED and Great Lakes. He plans to conduct a yearly survey of PM Officers to assess opinions, accomplishments, morale, and seek comments and recommendations. He recommended visiting the PM website for tips on how to improve writing of fitness reports. He stressed that writing a letter to the Board if passed over previously is necessary for any chance of promotion, and can include letters from current and former COs, OICs, and flag officers if possible. CAPT Yerkes at BUMED recommends sending a letter the first time considered for promotion also, to explain why the work PM Officers do for the Navy is important and requires us to be in the billets that don't allow us to be ranked against other officers.

6) NEPMU presentations:

CDR LaMar, NEPMU2: Very busy with Forward Deployable-Preventive Medicine Unit (FDPMU) issues and Chemical-Biological-Radiological (CBR) training. During the recent deployment to Kuwait and Iraq of NEPMU2's FDPMU, no Chem-bio work, but lots of traditional PM issues. Parris Island MRSA support continues.

CDR Neely, NEPMU5: Suggested that NHRC be invited to brief the NEB on their surveillance work. After a recruit death found positive for adenovirus and meningococcus in the lungs, MCRD is giving azithromycin prophylaxis to all recruits once weekly for 5 weeks, and are seeing a decrease in the total number of pneumonias diagnosed.

CAPT Hayashi, NEPMU6: NEPMU6 has a large CBRE training burden; and is sponsoring a SARS working group. Lots of diarrhea seen after OIF, some units with 30-40% attack rates, and CAPT Hayashi raises the question of whether pressure to report data is taking away from attention to basic PM responsibilities.

CDR Clagett, NEPMU7: NEPMU7 is performing many environmental and threat assessments. Deployed Medical officer for the Humanitarian Assistance Survey Team to Liberia, and subsequent malaria outbreak. NEPMU7 is performing a motor vehicle accident study on Sicily, per base CO request. 5th Fleet DNBI analysis is ongoing.

7) CDR Sherman, MC, USN, discussed medical data being collected during OIF; there were over 160 medical event reports from FDPMU-5 that were never sent in to NEHC/NEPMU. The Forward Resuscitative Surgical teams have large amounts of detailed data. The PDHAs are a big issue, completing and sending in the forms and tracking their receipt by AMSA, and completing the blood tests required.

8) Ms. Asha Riegodedios, MSPH, discussed the medical event reporting validation study. Results show that we should not rely solely on SADR reports or lab data, but we need to use lab/SADR/SIDR data and field input to develop an automated system for reportable medical events. There is good progress on "NDRSi", a web-based tool for Medical Event Reports that will solve many of the current challenges for compliance with reporting.

Subj: MINUTES OF THE NEB MEETING OF 05-07 NOVEMBER, 2003

9) Ms. Evie Wall, COMLANFLT Credentials Coordinator, gave an update on medical officer credentialing requirements, and emphasized the need for all PM Officers to get a performance appraisal report (PAR) completed by any military medical facility where they do any work. They should have a PAR filled out from their old command prior to transfer to their next command.

10) COL Cox, MC, USAF, from Air Force Institute for Environment, Safety and Health Risk Analysis (AFIERA) gave an update on Air Force epidemiology. He reviewed last year's Influenza, SARS and other surveillance issues. Adenovirus causes greater than 90% of all recruit febrile surveillance illnesses. They are preparing AFRESS2, a web-based reportable events system for planned roll-out in 2004 .

11) CAPT Kilbane, MC, USN, was asked to discuss the issue of malaria post-exposure primaquine prophylaxis. The AFEB has endorsed the 30 milligram increased dose that the CDC recommends, but it is not FDA approved or labeled as such. Therefore individual physicians can prescribe that dose, but it cannot be official policy.

12) CDR Sherman, MC, USN, discussed the microbiological testing/diagnostic capabilities of the FDPUMs. During OIF the FDPUMs were often the only facilities able to do micro testing as the Fleet hospital labs were not able to do clinical testing requested by their physicians. In addition, the FDPUMs had advance chemical-biological warfare agent testing capability. But there is a great range in the capability and interest of the microbiology personnel assigned to the FDPUMs, and no current policy that determines what their capabilities should be. CDR Sherman recommends that NEHC support the FDPMU labs in taking advanced microbiology capability to the field with the expectation that it will be used for clinical diagnostic and outbreak investigation purposes, as well as biological warfare agent detection. NEHC should develop minimal competencies for the FDPUMs, so that expectations for microbiology capabilities are clear to all, and personnel understand and offer their full complement of capabilities and services.

b. Selection of new NEB Officers.

Nominations were made and votes cast by members for the offices of President and Vice-President. CDR James LaMar, MC, USN, (FS) was voted the new President of the NEB, and CDR Mark Malakooti, MC, USN, the new Vice President.

Per NAVENVIRHLTHCENINST 6220.1F, it was recommended that the CO, NEHC, appoint a new Executive Secretary to replace the outgoing one.

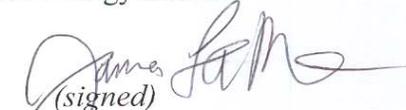
5. Next Meeting. The next meeting is tentatively scheduled for 12-14 May, 2004.

 (signed)
M. A. MALAKOOTI
CDR, MC, USN
Executive Secretary

Subj: MINUTES OF THE NEB MEETING OF 05-07 NOVEMBER, 2003

Minutes reviewed and approved by President, Navy Epidemiology Board.

Date: March 17, 2004


(signed)
J.E. LAMAR
CDR, MC, USN

Minutes reviewed by Commanding Officer, NAVENVIRHLTHCEN.

Comments:

Approved Disapproved

Date: 19 Mar 04


D. A. HILAND

**NAVY EPIDEMIOLOGY BOARD
NAVY ENVIRONMENTAL HEALTH CENTER
NORFOLK, VA**

LIST OF ATTENDEES FOR NAVY EPIDEMIOLOGY BOARD
MEETING OF 05-07 NOVEMBER, 2003

MEMBERS PRESENT

CDR S. Sherman, MC, USN (**President**)
CAPT B. Bohnker, MC, USN (NEHC PH)
CAPT E. Kilbane, MC, USN (BUMED M3F4)
CAPT K. Hayashi, MC, USN (NEPMU-6)
CAPT G. Rudolph (NEHC OEM)
CDR D. McMillan, MC, USN (HQUSMC)
CDR J. LaMar, MC, USN (NEPMU-2)
CDR T. Robinson (I MEF)
CDR McCannon (II MEF)
CDR J. Neely (NEPMU-5)
CDR C. Clagett (NEPMU-7)
CDR M. Malakooti, MC, USN (**Executive Secretary**/NEHC)
LT B. Killenbeck (NEHC EH)

GUESTS

CAPT Hooker (PM Specialty Leader)
CAPT Brawley (NMCP Clin Epi)
COL Cox, MC, USAF (AFIERA)
CDR B. Hendrick (AFMIC)
CDR Philippi (NEHC OEM)
CDR Martschinske (AMSA)
LCDR Litow (NEHC OEM)
Ms. Danielle Dell (NEHC)
Ms. Asha Riegodedios (NEHC)
Ms. Wendi Suesz (NEHC)

MEMBERS ABSENT

CDR M. McCarthy, MC, USN (NMRC)

Enclosure (1)

**NAVY EPIDEMIOLOGY BOARD MEETING
05-07 NOVEMBER 2003**

Wednesday, 05 November 2003

0800-0810 Welcome & Opening Remarks - CDR Sherman
0810-0830 Commanding Officer Remarks - CAPT Hiland
0830-0930 BUMED M3F4 / JPMPG – CAPT Kilbane
Break
0930-1030 HQ USMC PM - CDR McMillan
1030-1045 NEHC OEM Directorate- CAPT Rudolph
1045-1130 M11/NEHC Population Health Directorate - CAPT Bohnker

1130 - 1300 Lunch

1300-1430 NEPMUs 15-?min Briefs
Break
1430-1530 Specialty Leader Brief- CAPT Hooker
1530-1630 Who's collecting what data post-OIF? – CDR Sherman

1830: Supper at CAPT Bohnker's

Thursday, 06 November 2003

0800-0805 Presidential Remarks – CDR Sherman
0805-0820 Automated Lab Medical Surveillance Update – Ms. Riegodedios
0820-0850 'NDRS 2' – Ms. Riegodedios
Break
0900-0930 Credentials Update, Ms. Evelyn Wall, COMLANTFLT Credentials Coordinator
0930-1015 AFMIC PM Update – CDR Hendrick
1015-1100 USAF Epi update - COL Cox

1100-1130 Old Business (Review Previous Open EPI-RAPS)

EPI-RAP 02-008 Unplanned Pregnancy Survey - CAPT Hayashi
EPI-RAP 02-011 Review/Revise Metrics Used at NEHC BOD Meetings - CAPT Hayashi

1130-1300 Lunch

1300-1600 New EPI-RAPS

EPI-RAP 03-001 Strategy for the Navy General Preventive Medicine Community – CAPT Hooker
EPI-RAP 03-002 Change in Medical Event Report Data Flow – LCDR Kasowski
EPI-RAP 03-003 Turnover of SERT Responsibilities to the NEPMUs – CAPT Allen
EPI-RAP 03-004 Thermal Injury Reporting in the Navy and Marine Corps - Mr. Gant

Friday, 07 November 2003

0800-0805 Opening Remarks - CDR Sherman
0805-0900 Evidence-Based Healthcare Advisory Board – CDR Ken Yew
0900-0910 Break
0910-0945 Post-exposure Primaquine Prophylaxis - CAPT Kilbane
0945-1015 Fleet Hospital and FDPMU Microbiology Capabilities – CDR Sherman
1015-1030 NEB Membership Issues
1030-1100 Selection of New NEB President and officers
1100-1130 Selection of Date for Next Meeting / Unfinished Business and Closing Remarks
1130 **Adjourn**

Enclosure (2)

**NAVY EPIDEMIOLOGY BOARD
REQUEST FOR ACTION PAPER (EPI-RAP)**

DATE: 15 Oct 03
EPI-RAP# 03-001

TITLE

Strategy Session for the Navy General Preventive Medicine Community

ISSUE/PROBLEM STATEMENT

The NEB is the representative body for the Navy General Preventive Medicine community. In collaboration with the Preventive Medicine Specialty Leader, the NEB should annually review the status of Navy General Preventive Medicine and develop a working plan for developing, guiding, and promoting the community.

PRIORITY

Routine

BACKGROUND

It is essential for any community to plan for their future. This provides vision and direction to guide efforts to promote and improve services to the members of the community and to those the community serves.

ACTION NEEDED

Collaborate with the specialty leader to develop an annual plan for the future of the Navy General Preventive Medicine community. This strategy should be written and disseminated to every member of the community.

ISSUE ORIGINATOR

Stephen G. Hooker
CAPT MC USN
Preventive Medicine Specialty Leader
Naval Hospital Pensacola
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Pensacola, FL 32512
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PERTINENT REFERENCES

PERTINENT PERSONNEL

Enclosure (3)

**NAVY EPIDEMIOLOGY BOARD
REQUEST FOR ACTION PAPER (EPI-RAP)**

DATE: 1 OCT 03
EPI-RAP# 03-002

TITLE

Proposed Change in Medical Event Report Data Flow

ISSUE/PROBLEM STATEMENT

Currently, most medical event reports (MERs) are submitted by the originating unit to the cognizant Navy Environmental and Preventive Medicine Unit (NEPMU) which then forwards them to NEHC. Some MERs are submitted directly to NEHC, bypassing the NEPMU altogether. A large degree of redundant data management must occur both at NEHC and at the NEPMUs to reconcile NDRS MER records. If MERs were sent directly to NEHC there would be no need to reconcile reports between NEHC and the NEPMUs which would reduce redundant work for both the NEPMUs and NEHC.

PRIORITY

Routine

BACKGROUND

Medical Event Reports are submitted by reporting sites through cognizant NEPMUs to NEHC. This procedure has served the purpose of providing the NEPMUs with timely information regarding reportable medical events occurring within their respective AORs, as well as allowing them ready access to data for analysis and feedback. It has, however, also had the unintended consequence of providing another opportunity for data loss as MER data are passed from the reporting site to the NEPMU to NEHC. In addition to loss of data due to manual handling at the NEPMU, data loss has occurred due to the mismatch of IT security procedures between reporting sites, the NEPMUs, and NEHC.

Data loss from all means has been combated in the past by allowing reporting sites to send reports directly to NEHC. Currently, some sites report to NEHC while others continue to report to the NEPMUs, resulting in neither having fully up-to-date files at any given time.

One of the system benefits of reporting directly to NEHC is that data integrity is enhanced by eliminating one opportunity for data loss (in the case of those units reporting directly to NEHC). This process has, however, added the extra burden of reconciling NDRS reports between the NEPMUs and NEHC. This added work effort at both the NEHC and NEPMU levels, combined with the necessity to troubleshoot NDRS reports at the NEPMU level requires avoidable resource expenditure at all levels.

In order for the MER reporting system to regain maximum efficiency and accuracy, the following recommendations are proposed:

All reporting sites should report directly to NEHC. This

Enclosure (4)

would alleviate the current practices of reconciling reports between the NEPMUs and NEHC, of manual handling of data at the NEPMU level, and reduce the risk of data loss at the NEPMU level.

2. The NEPMUs should continue to be held responsible for data analysis and feedback to reporting units within their AORs. MERs of an urgent nature should be promptly forwarded from NEHC to the cognizant NEPMU for appropriate public health action. (The NEPMU should continue to be informed of urgent or time sensitive issues via telephone or e-mail from the reporting site.) Routine reports should be compiled at NEHC and forwarded to NEPMUs monthly for analysis and feedback. These processes should be automated to reduce the burden on personnel. In addition, automated, monthly aggregate reports could be generated and sent to the NEPMUs.

3. NEPMUs should be provided access to the raw data relevant to their respective AORs. This would allow them to download MER data for analysis at any time.

ACTION NEEDED

Recommend to CO NEHC that all MERs be submitted directly to NEHC, and that the necessary infrastructure be provided to allow individual NEPMUs access to NDRS data relevant to their areas of responsibility.

ISSUE ORIGINATOR

LCDR Eric Kasowski
NEPMU-6
1215 North Rd.
Pearl Harbor, HI 96860-4477

PERTINENT REFERENCES

BUMEDINST 6220.12A

**NAVY EPIDEMIOLOGY BOARD
REQUEST FOR ACTION PAPER (EPI-RAP)**

DATE: October 23, 2003
EPI-RAP# 03-003

TITLE: Turnover for SERT Responsibilities to the EPMUs

ISSUE/PROBLEM STATEMENT:

The mission of the SERT is strictly limited to responding to an outbreak or suspected outbreak of smallpox. Though there are strong sensitivities and political issues regarding smallpox, in many respects, the management of an outbreak is very much like other infectious diseases, for which EPMUs already provide a robust capability for response and control.

BACKGROUND

In October 2002, the Navy responded to DOD direction by establishing two Smallpox Epidemiologic Response Teams (SERTs). Both teams, one collocated with EPMU-6 at Pearl Harbor, Hawaii, and the second at NNMC, Bethesda, included approximately nine individuals each, from specialty areas of Epidemiology, Laboratory Medicine, Community Health Nursing, Infectious Disease, Epidemiology, and Preventive Medicine. Since its inception, the NNMC SERT has continued to meet regularly, pursue training, liaise with the Army SERTs, and maintain a high level of deployment readiness. Team members have also assisted NNMC in the smallpox vaccination effort for its personnel and others.

Since Team formation and the initial DoD-sponsored smallpox training last fall, the SERT has received no guidance, direction, support, or resources from BUMED or DoD. We have held teleconferences with the SERTs from the other Services in an effort to coordinate potential global regional response responsibilities and to share concerns.

Over the past several months, subsequent world events and other factors have led to a significantly decrease in the perceived threat of a smallpox release as well as a greatly diminished vaccination effort in civil and public health vaccination efforts. Further, other global disease threats have surfaced capturing the attention of the world, requiring the preventive medicine/public health expertise of national and global authorities, as well as those of the military.

As an infectious disease, smallpox can be characterized by epidemiologic and clinical features and laboratory studies, as with any other infectious disease. Though the hospital-based SERT does have a measure of expertise and capability to respond to a smallpox outbreak, it is not funded, equipped, or exercised

Enclosure (5)

to deploy to a forward location and sustain a preventive medicine operation. However, the EPMUs have the mission, resources, and experience to provide a robust response to a host of disease and environmental threats, both domestically and globally. Providing a response to an outbreak of smallpox should fall within the realm of EPMU oversight, as any other infectious disease.

Lastly, one of the reasons the SERTs were initially formed was to provide a multi-disciplinary asset to respond to a smallpox threat or outbreak, that was *not* part of a deployable platform or would otherwise be encumbered by a competing deployment requirement (such as with the EPMUs). This was particularly important at that time as the military was embarking on an armed conflict with Iraq and the likelihood of EPMU assets being deployed was almost certain. However, over the past several months, these considerations are much less compelling. Coupled with the diminished threat of a smallpox attack and the existing mission and far greater response capability of the EPMUs, maintaining a competing, less robust and non-resourced asset is not practical or advised.

ACTION NEEDED

The NEB should endorse the disestablishment of the Navy SERTs with responsibilities for smallpox response, including identification, control, and prevention, assigned to the EPMUs.

ISSUE ORIGINATOR

CAPT Wayne Z. McBride, MC, USN - Team Leader, Bethesda SERT
CAPT James W. Allen, MC, USN - Epidemiologist, Bethesda SERT

PERTINENT REFERENCES:

DoD Smallpox Response Plan, 29 Sep 2002, version 3.1
NNMC ltr 6320/0090 of 26 Mar 2003.

PERMANENT PERSONNEL:

Capt. Edward M. Kilbane, MC, USN
BUMED M3F4 Preventive Medicine

**NAVY EPIDEMIOLOGY BOARD
REQUEST FOR ACTION PAPER (EPI-RAP)**

DATE: October 28, 2003

EPI-RAP# 03-004

TITLE: Thermal Stress Reporting for Navy and Marine Corps Personnel

ISSUE/PROBLEM STATEMENT

Three data systems are currently used in thermal stress injury surveillance: Navy Disease Reporting System (NDRS), Occupational Environmental Medicine (OEM), and Naval Safety Center (NSC). The problems with these current systems are as follows:

- Duplicate reporting efforts.
- Confusion among field activities as to where to report (because of multiple reporting sites).
- Lack of accessibility between repositories to share data.
- Incomplete data capture within each system.
- Insufficient focus on injuries among Marines.

PRIORITY

Routine

BACKGROUND

NDRS is the Navy's electronic surveillance system for all Medical Event Reports (MER's). OEM was tasked by BUMED to look at shipboard thermal stress injuries, and report them to NAVSEA for their intervention by new shipbuilding and redesign initiatives. NSC tracks all accident and injuries that result in lessons learned, lost workdays, and significant monetary loss to the Navy.

An MPH student as a skills development project in real-time epidemiology problem solving conducted a descriptive analysis of three surveillance systems for reporting thermal stress injuries. The overall model dataset was comprised of OEM and NDRS data. NSC did not submit data within the specified time limit for the analysis. NDRS and OEM reported a total of 1,427 heat/cold injuries between January 1998 and April 2002 with a reporting overlap of 80 records. Data analysis revealed the following:

- Thermal injury rates for Navy personnel (between 3.63 and 21.98 injuries per 100,00 members) were significantly lower than injury rates for Marines (between 86.73 and 218.72 injuries per 100,000 members) over the reporting periods.
- 57% of thermal injuries were reported to OEM, and 43% of the injuries were reported to NDRS.
- 89.4% of total injuries occurred among Marines.
- There was a decrease in total injuries reported to OEM over time, and an increase in injuries reported to NDRS.
- 84% of the reported injuries were due to heat exhaustion.

ACTION NEEDED

- Centralize heat/cold injury reporting to the NDRS repository:
 1. NDRS has the necessary system to capture the data electronically.

Enclosure (6)

2. NDRS has epidemiologists to properly analyze and interpret the data collected.
 3. An interim system has been developed to successfully input OEM data into the NDRS repository
- Continue to monitor shipboard injuries.
 - Shift injury prevention focus from shipboard to Marine Corps personnel.
 - Pursue access to NSC data to provide a complete picture of thermal stress injuries.

ISSUE ORIGINATOR

Director OEM NEHC

PERTINENT REFERENCES:

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<http://neds.nebt.daps.mil/dwerectives/5102/three.pdf>
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 Military Medicine 2003 Apr: 168 (4): 298-303
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 Oxford University Press, New York (1994)