Report on Medical Seminar—Exercise Bogorodsk 2002

1. As part of the NATO/Russia/PFP Exercise Bogorodsk 2002 in Noginsk, Russia, a series of seminars were held. These were on topical areas of concern to the exercise organizers.

2. One, sponsored by the NATO Joint Medical Committee, was on the subject of Disaster Medical Management. This seminar consisted of three presentations, followed by a discussion period. The three presentations were by:

A. Doctor David Lam, NATO High Level Medical Expert, from the U.S. Army's Telemedicine and Advanced Technology Research Center;

B. Mister Mike Austin, from the United States Mission to NATO and the U.S. Federal Emergency Management Agency; and

C. Lieutenant Colonel Doctor Corneel Bellanger, from the Medical Component of the Belgian Ministry of Defense.

3. Dr. Lam presented a general overview of the entire field of Disaster Medical Management. He reviewed the epidemiology of disaster and the medical responses required. He presented a short overview of the literature, with emphasis on the fact that historically medical personnel have not performed well in planning for disaster operations. In reviewing the reasons for such problems, he discussed many of the commonly-accepted myths of disaster medicine and proposed solutions to many of them. As an aside, he discussed the issues of the use of Telemedicine systems in disaster relief and the concept of trans-national border air evacuation of casualties. Throughout his presentation, the emphasis was on the need for improved training of medical personnel in the requirements of disaster management, and for a formal disaster medicine planning concept based on cooperation among all relevant disaster response agencies.

4. Mr. Austin next discussed the basic principles of Disaster Medicine and its planning requirements. His talk was in much more detail regarding the actual mechanisms of carrying out disaster planning. During his presentation, he focused on specific issues involved in the development of a medical disaster response plan, including Organization and Readiness, Affordability and Sustainability, and Protection of Medical Teams. Further, based on long experience, he was able to discuss many of the pressures which potentially can impact on medical disaster planning. He ably discussed practical, political, and publicity-related constraints on medical planning, and emphasized the fact that medical planning cannot be done in a vacuum, but must be fully integrated with other aspects of disaster planning. He also ably made the point that medical disaster relief must be based on the use of pre-organized and pre-planned teams, rather than individuals—disaster response must be based on organizations which are not dependent upon a few dominant personalities. Protection of medical responders was another area he emphasized, and he noted that it cannot be forgotten that medics can be targets too, for

example of secondary explosions. In discussion of the vital importance of adequate training, he pointed out that poorly prepared training not only wastes time but can hurt your response capability.

5. The final presentation in the series was made by Doctor Bellanger. Since the exercise scenario involved the liberation of toxic industrial chemicals, Doctor Bellanger called upon his expertise in this arena to concentrate on an excellent presentation giving detailed recommendations for medical support in a chemically-contaminated environment. He discussed the importance of understanding the actual toxic effects of potential chemical exposures, in leading into a discussion of detailed medical planning. He provided prescriptions for Decontamination, Triage of Casualties, Stabilization of casualties, and the establishment of containment zones in the amelioration of the effects of such chemical exposure. He especially emphasized the importance of cooperation among agencies, risk analysis requirements before a disaster occurs, and the modeling which may support risk analyses and planning. The importance of qualified information dissemination was emphasized. Based on his long experience, he presented a proposed structure and agenda for on-site medical intervention in such a scenario. In summary, he noted that medical disasters in a chemical environment are similar to those in a non-chemical environment, but are much more complex. He pointed out that the only successful response must be based on a multidisciplinary approach, and that it must not be attempted on an ad-hoc basis, but must rely on preparation, training, and pre-planning. Several important points he made included the fact that in planning, we must not lose sight of the fact that the most credible accident is not necessarily the most spectacular. Additionally, he reminded the audience that even in a chemical environment, it may be a major error to focus solely on toxic effects, since combination injuries are the norm.

6. Following the presentations, a lively discussion took place. Numerous questions about the presentations were raised, and other participants presented their own views, based on their own experiences. Many of the participants had extensive experience, in both military-based and civil-based organizations, so the discussion rapidly became very practical rather than theoretical. Several specific issues were raised, which may provide the basis for future such seminars:

A. Some discussion occurred regarding the differences between military-based, top-down, planning and civil-based bottom-up planning. It was noted that even many civil agencies (such as the U.S. FEMA) use planning programs which are seen as military-based. Other agencies see their role not as providing top-down guidance, but of providing coordination for plans previously developed at the local levels. No conclusion was reached by the participants, though it appears there is probably room for both approaches, depending on national and local situations and on organizational capabilities.

B. The need for improved training for medical personnel in both disaster planning and disaster response was noted. No participant expressed the opinion that current training is adequate. Doctor Bellanger discussed briefly the development of the Belgian Course on Disaster Medicine and the European Master's Program in Disaster Management, which will assist in meeting this need.

C. Much discussion took place concerning he role of NATO in such activities as disaster relief. There was general agreement that NATO may very well be able to play a useful coordinating role, particularly in the coordination of multinational military support to disaster relief operations. Other participants expressed the view that it would be useful if NATO could turn its long-standing expertise in military standardization toward the development of civil guidelines and agreed doctrinal documents for use in disaster relief operations. Along this line, it was mentioned that many of NATO's current military standardization documents could be easily adapted for civil use. Further, it was recommended that NATO could identify current handbooks and guidelines in current use and adopt or publish them as NATO documents for the assistance of all Alliance and Partner members. The resurrection of the now-obsolete Joint Medical Committee "Technical Compendium on Emergency Medical Operations" and the widespread publication of the COMEDS WG-Emergency Medicine handbook on Emergency Field Medicine were both recommended in conversations after the seminar by several participants. Several participants also were of the opinion that an excellent role for the Joint Medical Committee would be a formal development of "lessons learned" from disaster responses, especially those involving both military and civil agencies.

D. The use of Telemedicine in disasters was discussed, and it was generally felt that the only role for TMED systems in the early stages of disasters would be that of providing general communications support. Telemedicine per se was felt to be of potential use in the post-acute or recovery phases rather than in the acute phase of a disaster.

E. The use of Forward Medical/Triage posts was discussed in detail, and the agreement was that generally they are only effective if they are located outside of a chemically "hot" zone, and that generally stabilization and triage will be more effective if done after decontamination of casualties.

F. The critical nature of public relations/information flow was noted by several participants. It was specifically seen that often medical personnel or organizations are not very effective at presenting information in such a way as to allay fears or misgivings of the affected populace. Again, it was recommended that more training of medical personnel on the issues of dealing with the press during disasters was needed.

G. The whole issue of mass population decontamination, and its practical aspects was discussed at length. On the one hand, some participants felt that we must restrict decontamination to those determined to be actually contaminated, while others felt that decontamination on a mass basis may actually help alleviate public concerns. No conclusion was reached, and it is proposed that this issue may be a suitable topic for another seminar.

7. The general consensus was that this was a most useful seminar. Many participants stated they wished it could have been allotted more time, some recommending a full day. Inclusion of such a seminar in the next such exercise was strongly recommended.

Submitted by:
David M. Lam, M.D., M.P.H.
NATO High Level Medical Expert
For the Joint Medical Committee