Journal of Medical Systems, Vol. 19 No. 2, 1995

Telemedicine for National and International Disaster Response

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INTRODUCTION

Telemedicine has become an integral component of national and locally coordinated medical and public health responses to emergencies and disasters in most developed countries. The levels of this response are highly variable, ranging from telemetry of individual patient care data, such as electrocardiograms, and supervision of medical care given by medical and paramedical personnel to coordination of information for disaster assessment and response, including coordination of medical logistics and general public health measures. The telecommunications support for this response is also equally variable, ranging from telephone lines (voice, data, fax) to ground-based radio and microwave networks to integrated networks combining both ground and satellite communications.

Telemedicine in many less developed countries is either non-existent or very rudimentary, as are capabilities to respond to large scale emergencies and disaster situations. Less developed countries often have neither the telecommunications infrastructure, nor the medical resources necessary to effectively employ telemedicine as part of their national disaster response strategy. Considering that provision of medical care and disaster response is a national responsibility, development of effective local response capabilities will require (1) the development of reliable national telecommunications capabilities that can be used for telemedicine, (2) the development of national medical and public health response capabilities, and/or (3) development of an international telemedicine and disaster response capability that is either prepositioned or can be rapidly deployed to assist less developed countries.

The utility of telemedicine in national and international disaster response has been demonstrated. However, the use of international telemedicine in the earlier phases of disaster response has been limited by the lack of an established international telemedicine

This position paper was presented at a panel discussion on the first day of the Second NASA/USUHS International Conference on Telemedicine ("Remote Health Care and Disaster Response"), and was revised based on comments from and discussion with conferees in an open session on the last day of the conference.

0148-5598/95/0400-0121$07.50/0