

Use of Digital Wireless Communications System for Rapid and Efficient Communication between Croatian Medical Centers in War

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Aim. To establish a special digital wireless communications system (packet radio) for rapid and efficient communication in the network of 32 major Croatian medical centers during the 1991/92 aggression on the Republic of Croatia by the Yugoslav Federal Army and Serbian paramilitary forces. **Methods.** The system, based on an AX25-communication protocol, comprised a stationary radio station, a personal computer, and a digital signal repeater (digipeater) as its basic elements. **Results.** The system had several major advantages: electronic equipment was relatively cheap, as well as easily installed, serviced and handled; radio enabled safe transmission of confidential information; a large amount of data was transmitted rapidly and precisely; and one could quickly learn how to use all parts of the stationary radio station. In this way, more than 110,000 files were exchanged between Croatian medical institutions during the war, containing vital information on casualties, forcibly displaced, detained or missing persons, grave breaches of Geneva conventions and war crimes committed by enemy soldiers, on-site epidemiological and toxicological reports, and the changing needs for medical supplies and drugs in endangered and besieged cities and villages. **Conclusion.** The system was directly applicable in solving various kinds of crisis management problems. With minor technical and organizational modifications, the system could be rapidly adapted for the exchange of scientific and health-related information between medical institutions in peace time.

Key words: communication; computer communication networks; databases, distributed; distributed systems; medical informatics; network communication protocols; radio; telecommunication networks