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Health Resources and Services Administration
Rockville MD 20857

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The Honorable William E. Kennard
Chairman
Federal Communications Commission
445 12th Street, SW
Room 8-B201
Washington, D.C. 20024

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Dear Chairman Kennard:

This letter is in response to the Federal Communication Commission's (FCC) Notice of Proposed Rulemaking (NPRM): ET Docket 99-255, regarding the amendments of Parts 2 and 95 of the Commission's Rules to create a Wireless Medical Telemetry Service.

General Comments:

The Office for the Advancement of Telehealth (OAT), Health Resources and Services Administration strongly supports the FCC's conclusion that "it is necessary to find additional spectrum for telemetry equipment." We also strongly support the FCC's conclusion that wireless medical telemetry should be allocated "primary status"... "to ensure that medical telemetry equipment is able to function without interference from other sources."

Last March, incidences of digital TV interference with wireless medical telemetry occurred at two hospitals in Dallas. These incidences highlight the dangers of electromagnetic interference with the operation of critical medical equipment and underline the need for additional spectrum with primary status. Moreover, the uses of wireless technology for critical medical equipment is growing rapidly as discussed below.

Service Eligibility

Under this NPRM's Service Eligibility section, the FCC states that it "would not include an ambulance or other moving vehicles" in its definition of health facility. OAT strongly disagrees with this conclusion and urges the Commission's to define emergency medical transport such as ambulances as an eligible health facility.

- **Emergency Medical Service and Emergency Medical Transport:** Many EMS/EMT companies are or will be important users of telemetry and other wireless technology. As discussed below, some EMT companies already have begun to use wireless telemetry or more advanced wireless technology such as wireless interactive video in their communications with emergency physicians. This equipment enables a paramedic to communicate with an emergency physician for an early assessment, well before the patient's arrival at the hospital. Wireless technology is also useful in the emergency care hospital setting because emergency physicians do not have to leave their patients while consulting a hand-held wireless device.

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The FCC also requests comments about in-home medical uses. OAT believes that that the Commission should expand its eligibility definition to cover in-home medical uses of telemetry because medical home care may become one of the fastest growing segments of the health care industry in the future.

- **Home Health Care:** According to recent studies and workshops¹, home care medical devices were the fastest growing segment of the medical device industry throughout the 1990s. A report from the Workshop on Home Care Technologies for the 21st Century suggests: *“Consumer demand for home health and home health care is not new. When patients have a choice, and if they have a reasonably stable and caring home environment, they choose to go home, almost without exception. If they have a severe, chronic, difficult condition it is difficult to permit them to go home, unless the home is fitted with the appropriate technology and care giver. We have the opportunity today to help enable this choice by developing technology that is easy to use, suitable for the patients' particular needs, and allows access to trained, off-site professionals who can work with the patient on educational/problem areas of concern.”*² Given the strong movement toward home health care, tele-homecare will be an important associated trend.
- Tele-homecare can be defined as providing monitoring (telemetry) and home health care services at a distance, using advanced telecommunications and information technology. Our grantees have found that tele-home health care has been largely successful, and can allow greater access to care, particularly in rural settings where a nurse may have to travel 200 miles one-way to see a patient at home face-to-face. With tele-home care, a rural nurse can “visit” 6 patients in one day, using interactive video instead of traveling 200-300 miles to visit one patient face-to-face for 20 minutes.

Permissible communications

OAT believes that all types of information should be permissible in the service, including voice, data, video and telecommand, unidirectional and bi-directional basis. We suggest that the telemetry equipment user, a health care practitioner, determine the best use of the equipment be it voice or video transmission –not the FCC.

Revisiting Spectrum Needs

In addition to this NPRM, OAT urges the Commission to revisit earlier Inquiries on Public Safety needs for spectrum. In particular, we ask that the FCC examine the need for spectrum to accommodate advanced critical wireless medical applications such as interactive video services on emergency medical transport/ services (EMT/ EMS) or telemedicine consultations, which may require greater spectrum bandwidth than telemetry.

Telemedicine is the use of telecommunications and information technology to provide clinical care at a distance. The availability of telemedicine services in far-flung rural areas can sometimes mean the difference between life and death for patients who must travel hundreds of miles to see a nurse or doctor. In states such as Alaska, Montana, North and South Dakota or the Pacific Basin area, these distances can be great. Wireless technologies can be particularly beneficial in these areas because developing wireless networks may be faster and cheaper than building a wireline infrastructure, particularly over mountainous or rugged terrain.

¹ “Future Trends in Medical Device Technology: Results of an Expert Survey,” FDA, April 1998 and Workshop on Home Care Technologies for the 21st Century, Catholic University, April 1999.

² Personal Status Monitoring in the Home, Report Topic B, Workshop on Home Care Technologies for the 21st Century, Catholic University, April 1999.

Some emergency medical transport companies have already begun to outfit their ambulances with wireless telemedicine equipment. This equipment enables a paramedic to communicate with the emergency physician for an early assessment, well before the patient's arrival at the hospital. The telemedicine equipment can be as simple as a laptop computer with desktop video conferencing capabilities that provide simultaneous two-way video, two-way voice, vital signs, cardiac and other data to a trauma center. Given the rapid growth in the number of wireless telehealth and telemedicine applications at this time, we recommend that the Commission revisit its earlier findings about Public Safety needs for spectrum.

Background

In September 1996, The Public Safety Wireless Advisory Committee presented a comprehensive Final Report to the FCC and the National Telecommunications and Information Administration, which highlighted the Public Safety community's need for communications resources and the spectrum through the year 2010. The focus of this Report was on spectrum congestion for public safety uses; interoperability between Public Safety agencies and the ability to implement advanced features.

At the time the report was released, digital mobile communications or PCS had not yet been introduced into the market and the use of video or still imaging for emergency medical service was still in the development stage. However, since PSWAC submitted its report, digital land mobile voice services have been introduced and rolled out regionally and nationally. In just one year, December 1996 to December 1997, the number of mobile telephone subscribers, including analog cellular and digital jumped from 44 million to 55.3 million and the national penetration rate rose from 16.6% to 20.7%.

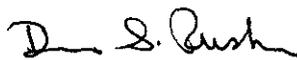
Today, wireless products such as hand-held computers with Internet capabilities are becoming common place. In the Netherlands, Nokia has already introduced its Communicator that can link to a digital camera; store images, and then emails them.³ Nokia's Communicator will be available in the United States within the next year.

Given the dramatic changes in the wireless industry over the past few years, we suggest that the FCC revisit the issue of implementing advanced features for Public Safety purposes and initiate a separate Notice of Inquiry regarding the spectrum need's for critical medical users of the spectrum such as:

- EMT/ EMS
- Wireless telemedicine applications
- Wireless computer applications for medical purposes

We appreciate the opportunity to comment on this FCC Notice of Proposed Rulemaking. The Commission plays an important role in the deployment of advanced technologies that have become increasingly important in the delivery of health care. We look forward to continuing our working relationship with you in the future.

Sincerely,



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³ Source: Time Magazine, August 23, 1999, p.40