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The Heart Center, P.C.

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August 17, 2000

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

RE: Ultra-Wideband
ET Docket 98-153

Dear Ms. Salas:

I wanted to contact you and express my interest in the FCC's recent Notice of Proposed Rulemaking on ultra-wideband radio transmission. As a cardiologist in a very busy practice, I can foresee this technology dramatically improving our ability to care for our patients, both in the hospital and in the community.

I am sure you are well aware that ultra-wideband technology would allow the transmission of large amounts of data over short to moderate distances using wireless techniques. This will have far-reaching implications in our ability to monitor patients for various cardiac conditions. I would like to give you several examples of applications of this technology which would be tremendous advances over the currently available devices.

First, various types of heart monitors could be equipped to continuously transmit heart rhythm information, which could then be monitored at a central station at a heart center. This would result in intensive care unit quality heart monitoring capabilities for outpatients. If a serious heart rhythm did occur, it could be instantly recognized and rescue services dispatched to the patient's exact location. This could tremendously expedite delivery of needed emergency cardiac care.

A second example is continuously transmitting pacemakers. The current pacemakers have to be interrogated and programmed in a physician's office using a computerized, magnetized device. Future pacemakers employing this technology could continuously transmit heart rhythm information, allowing remote interpretation and reprogramming of the pacemaker's functions.

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Exercise stress testing could be performed remotely, with data transmitted to a heart center for monitoring as a patient exercises at an outpatient cardiac rehabilitation facility. Another example could be application of this technology to imaging cardiac structures which is currently restricted to x-ray and ultrasound. The possibilities are limitless.

A final example would be improved monitoring of patients in the hospital. Currently patients are required to wear monitors and remain on a particular floor or wing of the hospital in order to maintain contact with the central receiving system. Furthermore, transmission of these signals can be interrupted by the use of cell phones within the hospital building. Loss of a signal or interference by cell phones has serious consequences. Ultra-wideband technology would eliminate this conflict, as well as allowing the transmission of a far greater amount of cardiac data. These examples are only a few of the potential applications for this technology.

I would like to encourage you and the FCC to proceed expeditiously in your decision-making process. Specifically, I feel that your rule-making should allow this technology to be applied to its fullest extent, allowing maximum development and exploitation of its tremendous potential. Certainly you can see that increasing its power and range would enhance its application and our ability to care for heart patients. Of course, I would not expect this technology to be approved unless it had no unintended impairment of current radiofrequency communications and safety systems. However, current evidence suggests that this would not be the case.

I thank you for your brief moment of time to review this letter of my support for the medical applications of ultra-wideband technology. I hope you have a greater appreciation for its tremendous potential for improving many aspects of our ability to care for our patients.

Sincerely,

D H. Drenning MD

David H. Drenning, M.D.
DHD/me

d: 9/5/00 r: 9/5/00 t: 9/6/00