

for determining the lifesaving steps that should be taken in an emergency that occurs, let us say, in the middle of the night.

Immediate indication of a patient's condition is highly important. If the doctor is at his home or office, precious time may be lost while he is driving to the hospital to prescribe the proper treatment. With the system as Salem Memorial is going to use it, when a patient's heart function either exceeds or falls below predetermined limits, an alarm system notifies the nurse. The nurse will call the doctor whose cardiac patient is experiencing difficulty, give oral details of the patient's condition, and then transmit the patient's EKG via a Data-Phone arrangement.

With this information, the doctor is able to determine what steps need to be taken immediately in treating the patient before he leaves for the hospital.

We do not have anyone from Salem Memorial Hospital to participate here today, but Dr. Meyer has indicated that if you have any questions about the application of this kind of a system, he would be glad to discuss them with you.

Senator HATFIELD. I would like to comment that this has created a great deal of excitement out in my hometown. This hospital to which you refer has not only been pioneering in this field, but I think is the first in our State, at least, to offer full helicopter ambulance service, with a heliport on top of the hospital.

When I was talking to Mr. Sukalak at Salem Memorial Hospital last time I was home, he indicated to me there was work well along on the heartline system about the development of a fully portable system, usable wherever telephone service would be available. Could you tell me a little bit about how far along this particular development is?

Mr. CALLAHAN. Yes, sir. What he was referring to, of course, was a portable data-receiving set. The set which we have been demonstrating here is one which is used for the transmission and sending. Work is being undertaken now to look at adapting the EKG Data-Phone receiving set for portable use. I cannot give you any indication at this time as to just exactly how far along that work has proceeded or what the possible availability might be.

Senator HATFIELD. He also mentioned about the possibility of using the Data-Phone service to eliminate inventory or vastly reduce inventory problems as a service to hospitals. Would you care to comment on that, please?

Mr. CALLAHAN. I am not sure, Senator, I understand what he has in mind.

Senator HATFIELD. Well, areas of labor saving that would be involved would be as it relates to the operation of hospital delays and back-order delays due to mistakes, eliminates the need for extensive warehouse services, and things of this type.

Mr. CALLAHAN. Oh, yes. He was referring to administrative applications of data transmission. For instance, in the ordering of supplies, there are a number of systems in operation around the United States now wherein the hospital supply company has installed Data-Phone service so that the hospitals which they service can send their orders directly and be received on a business machine for prompt processing. By doing it in this way, they eliminate the always-present danger of error being inserted by human beings copying and recopying ma-