**Telehealth and Telemedicine**

Telemedicine is a way of providing medical and health services using telecommunications technology. Telemedicine and telehealth have grown widely in the past years because of its significant benefits in the provision of better healthcare services. There are several ways of collecting data from the patient. The biomedical data that relates to the human body is the most necessary in telemedicine. The data and information collected include blood pressure, heart rate, body temperature, respiration rate, and blood oxygen saturation.

A heart rate that ranges from 60 to 100 *bpm* is considered normal*.* Heart rate is useful information since its measurement and analysis can indicate life-threatening conditions in a human being like heart failure. The heart rate varies with time, and the activities carried out. During the day, the heart rate usually is higher as compared to the heart rate at night when the body is at rest. The number of beats measures the heart rate within a unit time. In most cases, measurement of the heart rate is taken at the radial and carotid artery that is at wrist and neck. The measure of the heart rate through an automated system is used to help monitor the patient all time. A small pulse counter is typically placed at the wristwatch of the patients, which would monitor his or her heart rate any time it is won (Nelson, 2017). At the time when the reading falls outside the patient's normal range, the monitor will send a signal to the responding unit and hence alerts the medical service Centre using telemedicine network. The patient will hence be able to get immediate treatment.

A healthy human being should have a breathing rate of between 12 and 24 breathes per minute. However, the rate varies with age. Breathing is easy to count since it is rhythmical and slow and hence counting the number of times of contraction and expansion of thorax measures respiratory rate. Telemedicine aims at providing medical service remotely, and because of that, data must be transferred from patient's accident scene to the hospital. For instance, for the case of heart rate, an automated system is used to help monitor the patient all time. A small pulse counter is usually placed at the wristwatch of the patients, which would monitor his or her heart rate any time it is won. In case the reading falls outside the patient’s normal range, the monitor will send a signal to the responding unit and hence alerts the medical service center using the telemedicine network; hence, the patient will be able to get immediate treatment (Levin & Philips, 2018). Patients with hypertension require frequent monitoring of their blood pressure. In this case, the patients are made to have a wearable device that acquires blood pressure readings from the patient and transmits the data to the responding unit.

In conclusion, telemedicine aims at providing medical service remotely; therefore, data must be transferred from the patient to the hospital directly. Telemedicine has increased the efficiency of the healthcare through the management of diseases such as hypertension. The improved technology has significantly influenced the health care system. Telemedicine has become a solution to most challenging problems in our current healthcare system such as the distribution of limited providers, access to care, and cost reduction in delivery.

**References**

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