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遠距生理監測系統應用於居家照護之研究

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摘要

本文主要目的為研製一個不受時間、地點所限制的，可遠距與即時監控的健康照護系統，由心電圖與體溫量測裝置，透過通用串列匯流排 (Universal Serial Bus, USB) 與非同步式串列介面 (Universal Asynchronous Receiver Transmitter, UART)，即時將量測到受監控端 (病患)的生理訊號資料與電腦連線，透過網際網路與無線傳輸媒介，與監控端(照護人員)的電腦做連線，便於照護端與病患端建立起可信賴的橋樑，能夠使照護端充分掌握病患的情況，並於緊急狀況發生時，發送通知予照護端或家屬，可在最短時間內提供受監控端必要的協助。

關鍵字：通用串列匯流排;單通道心電圖;網際網路;

生理訊號量測;無線通訊

The Application of Remote Physiological Monitoring and Measurement System to Homecare

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Abstract

The main purpose of the research is to develop a remote monitoring and real-time healthcare system without the constraints of time and place. It bases on electrocardiogram and the device of body temperature. The physiological information of monitored patients' can be connected with the computer via Universal Serial Bus (USB) and Universal Asynchronous Receiver Transmitter (UART). These data can also be connected with the computers of health takers by means of Internet and wireless transmission system. This system establishes a reliable communication between patients and health takers. Health takers can control the condition of patients effectively, and messages can be sent immediately to health takers or dependents while a state of emergency occurs. They can provide assistance as soon as possible for those monitored patients.

Key words : Universal Serial Bus (USB);Single-Channel

Electrocardiogram (ECG);Internet;Biosignal measurement