TICUM: An Approach to Tele-Medicine for Rural ICUs in Developing Countries

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Abstract— Highly trained medical staff in the Intensive Care Unit (ICU) need to interpret the high volumes of noisy data generated from the monitors attached to their patients. However, in rural ICUs there is shortage of specialist critical care staff to manage the highly complex patients safely and efficiently. One solution is to use tele-monitoring to allow medical staff in another location to receive ICU data over the internet to enable them to provide remote assistance to rural ICUs. In this paper we propose an architecture for tele-monitoring to provide enhanced decision support to rural ICUs in order to improve the quality of patient care by giving accurate summaries.

Keywords: Telemedicine, tele-monitoring, tele-ICU, MVC