Real-time Post-discharge Cardiac Rhythm Monitoring Following Heart Surgery

Background

Disturbances in cardiac rhythm occur in approximately a third of patients during the two weeks following open-heart surgery. In today's streamlined healthcare environment, these patients are increasingly likely to be home during this vulnerable period. This study seeks to determine the applicability of recently developed trans-telephonic cardiac rhythm monitors to patients leaving the hospital after cardiac surgery.

It is hypothesized that deployment of this technology will show potential for eventually yielding a positive return on investment by enabling timely deliberate medical interventions to preclude symptomatic escalation that would otherwise mandate more costly acute measures such as emergency room visits and/or re-hospitalization.

If early detection of electrocardiograph abnormalities in this study materially reduces morbidity or precludes escalation of care, then a larger study may be warranted, perhaps in cooperation with a civilian institution that functions within different economic constraints.

Mission Statement

To determine the feasibility of the use of a telephonic cardiac rhythm monitoring system to be applied to patients having had open-heart surgery at the time of their hospital discharge.

Strategic Direction

To promptly identify potential complications following open-heart surgery from post-cardiac patients, so that timely medical service can be introduced.

Goals and Objectives

1. To determine the frequency and type of interventions that arise in response to findings on transmitted cardiac rhythms, both those routinely scheduled, and those initiated by patients due to perceived symptoms. Such interventions may range from telephoned reassurance, or medical dosage alteration, to arranging a next-day clinic visit, to prompt emergency room evaluation and/or hospitalization.

2. To collect data sufficient to provide the foundation for analysis of the economic impact of the utilization of an outpatient cardiac rhythm monitoring program.

3. To determine the level of patient response to the feasibility of use of the telephonic cardiac rhythm monitoring system.