

CS 420 Problem #3: Health Care For The Elderly

Learning/Content Goals

- learning
- data mining
- probabilistic reasoning and analysis

Description

Walgreens has developed a new accessory that looks like a watch and is strapped on the wrist. With the new technology, the device can record temperature, heart rate, blood pressure and sugar levels. The intent is to deploy these to older clients who are at risk of developing diabetes, arrhythmia, high blood pressure and other ailments that will affect clients as they age.

Walgreens has contracted with you to develop a program to monitor the health of the clients so that they can proactively deal with problems before they become a major health issue.

Some Issues To Ponder/Consider

This program is not intended to handle health emergencies (e.g., heart attacks) but more as (1) a way to better inform the patient, physicians and family members, (2) gather data about the best times to administer medication to patients (e.g., when to administer blood pressure medication (morning, evening)), (3) gather data about possible long term changes (e.g., early onset of diabetes), (4) gather data about the efficacy of medications (e.g., how long does the effect of insulin persist, multiple small doses or a single large daily dose, are the medications adversely affecting each other), (5) monitor the ability of the patient to ingest medications (e.g., how often do they forget to take the medication).