**CLS 4361 Research Project Title and Description**

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PROJECT TITLE:

Comparison Study of Cardiac Troponin Using the Dimension and Stratus Analyzers

DESCRIPTION OF PROBLEM:

This research project involves a comparison study of cardiac Troponin using the Dade Behring Dimension and Dade Stratus Analyzers. 30 herparinized serum samples were obtained from patients that visited the Emergency department at Christus Santa Rosa Hospital in New Braunfels. Troponin tests are usually performed on patients that come to the emergency room complaining of chest pain.

Before beginning this research project and utilizing the analyzers, I received permission from the CSRH lab director, Dr. Skelley. I performed the daily QC and maintenance on both the Dimension and Stratus. After ensuring the controls were effective, I ran the samples first on the Dimension. The Dimension uses special cuvettes which allow for several samples to be processed at a time. I made two runs using 15 samples for each run. The Dimension takes 15 min to process and test the sample for one run. After testing with the Dimension was completed, I began preparing the samples for the Stratus. I placed the serum in a rotor and performed the set up for the Stratus. The Stratus processes only one sample at a time. The run time is 15 min for each specimen. After the quantification of Troponin, both analyzers present a print out of the sample results. The data from the results will be analyzed using SPSS. SPSS will illustrate the better performing analyzer or if the performance is equal.