

Abstract

Working at Logan Regional Laboratory gives students numerous opportunities to expand their learning in areas that include: chemistry, hematology, and microbiology. For this internship, I worked on researching an analyzer that Logan Regional uses in its microbiology laboratory.

The BioFire analyzer is used for varying specimens but provides vital information for diagnostic purposes. I learned a lot about how this one machine has improved treatment plans and created cheaper hospital interactions for patients.

Figure 1 – The BioFire



The BioFire analyzer allows Logan Regional lab to test samples varying from blood, respiratory, and gastrointestinal specimens in approximately one hour. This decreases testing time from days to just one hour.

Information Learned

The BioFire has given clinical labs the upper hand to diagnosing patients and creating treatment plans. The BioFire allows doctors to obtain more accurate and specific testing results sooner than compared to traditional methods while giving patients cheaper hospital interactions. This includes cheaper testing, reduced numbers of tests done, and shorter hospital stays.

Figure 2 – The pouch used for the BioFire



Each pouch differs for each panel (Blood panel, gastrointestinal panel, respiratory panel, etc.). The red container will contain the sample and buffer (in the tube to the right of the red container). The blue container is to hydrate the pouch. The clear container towards the bottom is the cartridge inserted into the BioFire. The red and blue containers have a needle that will be used to puncture the cartridge so that the sample can be transferred from the red and blue containers to the cartridge.

Internship Activities

My internship activities mainly dealt with researching the BioFire. But working in Logan Regional's microbiology laboratory, as a clinical lab assistant (CLA), I perform duties that include:

- Setting up specimen culture plates
 - Types of specimens: urine, blood, sputum, wounds, tissue, etc.
- Running STAT testing from the ER and floor patients
 - Rapid streps
 - Respiratory Film Array Panel
 - Gastrointestinal PCR testing
 - Flu/RSV PCR testing

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