Return on Investment, Administrative and Financial Considerations

COPAN

A RETURN ON INVESTMENT (ROI) exercise will differ for each lab, depending on the volume and type of samples the lab processes, operating and peak hours, goals for future growth and more. Some of the data that you may need to gather to determine your lab's return on investment is summarized here.

Total specimen volume for bacteriology samples that are manually plated

How many full-time equivalent (FTE's) are needed to process the specimens arriving into the lab

What times during the day do the specimens arrive in the lab

Planting protocols (# and types of plates inoculated per specimen type; bi-plate versus whole plate; incubation parameters (O2 or CO2 etc)

Staffing schedules

Beyond the ROI: Additional Automation Considerations

FTE Reallocation

Is there potential to expand the scope of the lab testing by automating the upfront processing? For example, can trained lab technicians perform more molecular testing or can the lab increase volume of routine testing etc.?

Recruiting and Retention

Could automation allow the lab to recruit employees more readily or retain employees in this competitive market? Consider employee engagement, removal of the repetitive non-value added tasks like manual planting and streaking?

Cost of Quality

How much rework must happen in your lab, can savings be realized by having more consistent and reproducible specimen preparation?

New Business

Can the lab receive more business from outreach clients if they adopt state-of-the art technology such as automation, digital Microbiology, and automatic plate reading?

Turnaround Time

It not uncommon for laboratories to experience significant improvement in TAT when adopting full lab automation due to added efficiencies of incubation, reading, set-up and reporting with automation. Plates can now be read sooner due automatic segregation and alerts to technologists when plates are ready to be analyzed and worked up.

Can faster turnaround time help to shorten hospital stays and improve antibiotic stewardship?