

Customer Snapshot

University of Alabama-Birmingham Hospital



Even the most organized anatomic pathology (AP) lab can take steps to improve workflow processes and protect patients from unnecessary risks. University of Alabama-Birmingham Hospital (UAB), well known for its highly efficient health care delivery system, recently took steps to implement new safeguards in the AP lab to prevent two of the leading risks: patient specimen misidentification and stainer bath contamination.

Background

The UAB AP lab processes 40,000 cases annually, with a diverse range of specimen types and case complexity. The lab operates 24 hours a day, 5 days a week. With a heavy workload and increasing demands to do more with less, department leaders turned their focus to increasing efficiency, decreasing turnaround times,

and improving patient safety. The Ventana Medical Systems, Inc. (Ventana) patient focused solution offered UAB an opportunity to achieve these goals by implementing three complementary components: smarter staining with the VENTANA SYMPHONY platform, smarter workflow with the VENTANA VANTAGE system, and improved processes with VENTANA Workflow Consulting solutions.

Workflow improvements streamline operations

As a first step, UAB enlisted the support

“VANTAGE is the beginning of a huge change in the histology lab, setting the benchmark for other companies to follow.”

— Christie Gowan, Lab Supervisor

UAB MEDICINE

Medicine that touches the world.

Located: Birmingham, AL

- 908 beds
- 709+ multi-specialty physician practice
- 32 centers of excellence

Histology Volume

- 99,000 blocks and slides per year
- 40,000 surgical pathology cases/year

AP Staff

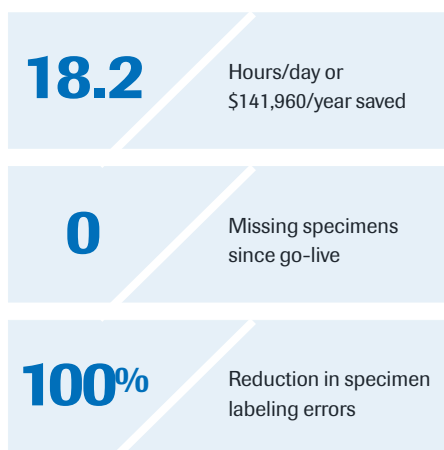
- 13 histotechnologists
- 1 lab assistant
- 30 pathologists

VENTANA solution

- 1 SYMPHONY H&E stainer
- 1 VANTAGE workflow solution
- 1 BenchMark XT stainer
- 1 BenchMark ULTRA stainer
- Lean Operations from Workflow Consulting Solutions

“We increased slide volume, reduced staff and improved our turnaround times with SYMPHONY and VANTAGE. Today, our histotechs are performing new tasks. It is hard to miss the improvements in this lab.”

— Lea Novak, MD, Director of Anatomic Pathology



of the Workflow Consulting solutions to streamline and optimize lab operations. The workflow consulting team broke down processes in each work cell to identify opportunities for increased efficiencies and time savings. By recognizing and eliminating waste, UAB eliminated one FTE and reassigned two FTEs to other parts of the lab.

The workflow consulting project also dramatically smoothed the implementation of the VANTAGE and SYMPHONY systems by removing unnecessary steps at each workstation prior to the introduction of new automation.

Ventana products improve efficiency & reduce risk

The VANTAGE workflow solution significantly decreased opportunities for human error and established single-piece flow throughout the lab. Automation, beginning with accessioning and cassette marking, eliminated the manual entry of case identification numbers and patient information. In the grossing cell, the VANTAGE system reduced misidentification events through automated specimen to cassette verification. A process redesign at embedding allowed UAB to reduce staff from 3 FTEs to 1.5. At microtomy, the VANTAGE system improved case integrity through just-in-time slide labeling, single-piece flow, and a one-time label approach to slide identification. In addition, having the ability to monitor cases throughout the process, with visibility of slide location at all times simplified case assembly and resulted in more rapid slide distribution to pathologists.

The combination of lean process improvements and the Symphony staining platform noticeably streamlined the H&E staining process and helped protect UAB from tissue cross-contamination that can occur in older “dip-and-dunk” staining baths. The fully-automated Symphony system resulted in a five percent increase in slide volume, with a staff reduction of 1 FTE.

With the implementation of the Symphony and VANTAGE systems, overall operations have improved and opportunities for error have decreased throughout the AP laboratory. Pathologists now receive and review slides sooner, accelerating patient notification of pathology results.

Results

Lean changes in UAB’s workflow processes eliminated a total of 2,184 steps per day in the lab, resulting in a daily time savings of 18.2 hours. Across the histology lab, the VANTAGE and SYMPHONY systems allowed UAB to:

- Reduce histotech staff by 1 FTE
- Reallocate 1.5 FTE from embedding to microtomy
- Reallocate 1 FTE from IHC to microtomy
- Shift direct immunofluorescence testing to histology without an increase in staff

Lab Supervisor Christie Gowan called the VANTAGE system, “the best comprehensive tool ever produced for the histology lab.” The VANTAGE solution improved the visibility of quality issues in the laboratory, allowed UAB to meet turnaround time goals for routine work “for the first time ever,” and significantly improved patient chain of custody by dropping the occurrence of sample mix-ups or missing specimens to zero.

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