

LOWERING COSTS AND SIMPLIFYING WORKFLOW WITH THE *AutoMate* 2550 SYSTEM



Hacettepe University Faculty of Medicine Hospital is one of the leading university hospitals in Turkey. The university is well known for its geographical location and adoption of ground breaking technologies. While the reference site is preferred by a large number of patients, it is of particular interest to specific patient populations seeking test results from a variety of panels. With many different systems performing hundreds of standard and specialized tests, the hospital's laboratories are driven to ensure the delivery of results without error, while containing costs and managing workload burden.

For more than 16 years, the facility—which has been held up as an example of excellence in its own region, as well as all over the country—has been using a standalone automation system with an aliquoter feature. With this technology, it has enhanced patient satisfaction, simplified workflow and provided a solution that helps prevent operator confusion and mistakes.

Optimizing operations with the *AutoMate* 2550 solution

The *AutoMate* 2550 system with aliquoting feature streamlines pre- and post-analytical processes through automated solutions that can help to:

- › Reduce potential for biological risks by decapping test tubes automatically
- › Read serum levels through labels and aliquots according to user-defined priorities
- › Aliquot a primary test to up to seven different tubes, and label every aliquoted tube in a different format; for example, names of the test, technician, laboratory and/or date and time
- › Place samples into racks for analyzers
- › Process different test tube types simultaneously
- › Recap and archive processed test tubes
- › Pipette samples to microplates
- › Accommodate installation of input and output areas according to needs

Laboratory profile

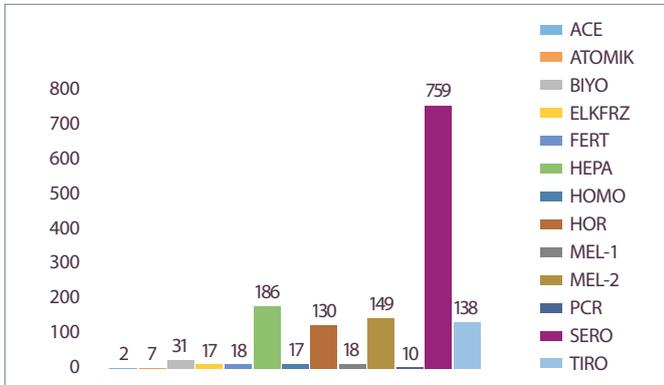
- › 1,040-bed hospital located in Ankara, Turkey
- › Provides uninterrupted 24/7 inpatient, outpatient and emergency services
- › Employs 6 professors, 6 associate professors and 130 operators
- › Performs up to 6.5 million biochemistry and hormone tests annually
- › Processes up to 2 million tests on instruments in more than 20 different units
- › Operates a Beckman Coulter standalone *AutoMate* 2550 pre- and post-analytical automation system in the biochemistry laboratory, along with a Power Processor system with two centrifuges, two UniCel DxI 800 Access immunoassay systems, one standalone AU5821 biochemistry system, one standalone AU680 system and a 10K Stockyard
- › Uses two standalone AU680 clinical biochemistry systems and two Access 2 immunoassay systems in the emergency laboratory



Adding value with the AutoMate 2550 system: an observational study

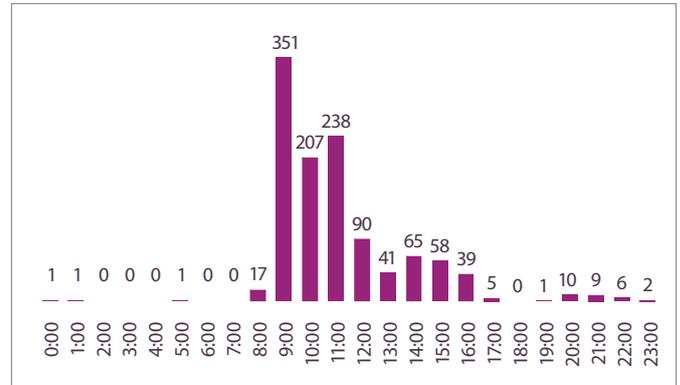
To better understand the contribution of the AutoMate 2550 system to the hospital's processes and productivity, Hacettepe University laboratory researchers conducted a one-day observational study of the system's performance. The purpose of the study was to determine the cost- and time-savings, and the value added to operations by the system's aliquoting feature for this specific laboratory.

Figure 1



Data collected from LIS and Sorting Drive (AutoMate data-management solution) showed that the AutoMate 2550 sorted serums from 13 different workplaces out of 15 identified for inclusion in the study.

Figure 2



In the 24-hour study period, 1,142 test tubes were accepted by laboratory reception. Of test tubes arriving between 8 and 17:00, the highest volume occurred between 9 and 11.

Number of aliquots	Primary tubes	Secondary tubes	% aliquots
2	197	394	65.67
3	50	150	25.00
4	10	40	6.67
5	2	10	1.67
6	1	6	1.00

The processed test tubes were aliquoted at least 1:1. The secondary test tubes were arranged in the racks of predefined workplaces by the AutoMate 2550 system. All primary test tubes were archived.

Observation

Even in times of high peak volume and with test tubes coming from more than a dozen different locations, the AutoMate 2550 system's aliquoting feature was able to perform all required tasks, helping to ensure delivery of accurate results within targeted timeframes. Moreover, this laboratory saw value added in the areas of personnel expenses, time management and workflow, early detection of barcode and operator errors, and blood-drawing steps.



"I cannot imagine—even don't want to think about—this laboratory without stand-alone automation system."

Asst. Prof. ASLI AKHUN PINAR

For more information, visit beckmancoulter.com/automate