



Elisabeth-Tweesteden Ziekenhuis,  
Netherlands

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Bob Wieggers, Head of the laboratory, Haematology and Chemistry

## Targeted initiative to optimise the transport of blood samples

In 2015, the famous Dutch Hospital Elisabeth-Tweesteden Ziekenhuis (ETZ), Tilburg, considered introducing full laboratory automation in the hospital laboratory. Bob Wieggers, Head of the laboratory at the Haematology and Clinical Chemistry Department, studied the Tempus600 system and found it very attractive because of its time saving factor. The laboratory subsequently recommended the system to the hospital management as a solution for streamlining the transport of blood samples.

The hospital needed to improve patient treatment by making the transport of blood samples more efficient and, the recommended system successfully met that requirement and is now in use.

“Tempus600 meets our expectations and we are very happy with the system. It is easy to use, and you only need to touch the samples once. Implementing Tempus600 streamlined sample flow in the laboratory, reduced manual handling of samples and freed up resources. Furthermore, the quality of the samples is better because compared to transporting the samples in the traditional way, there is less hemolysis in the samples when they are transported by Tempus600,” says Bob Wieggers.

### Reduced TAT and fast patient treatment

When the analyses have been ordered by the phlebotomy and the emergency department, the blood samples are dispatched in the sending station, transported through the pipeline over long distances (350 m and

450 m), directly to the laboratory rather than being carried manually by staff. The samples land in a Sysmex/GLP track System in the fully automated laboratory and are automatically transferred to the track for analysis.

“Today, the transport time for blood samples from the blood drawing and the emergency department is significantly reduced, and the combination of fast, dedicated sample transport and total laboratory automation has dramatically improved the total turnaround time by 30%. Especially on urgent blood samples from the Emergency Department, where the total turnaround time is reduced from 57 minutes to 40 minutes, resulting in faster treatment of ambulatory patients,” explains Bob Wieggers.

“Previously the departments expected to get the test results within 1.5 hours. Now, they get worried and start calling, if they haven’t received the test results in 50 minutes,” says Bob Wieggers.

Every year at ETZ, 380,000–460,000 samples are sent from the Phlebotomy Department and 109,500–146,000 samples are sent from the Emergency Department. Fast and predictable response time is crucial, in order to speed up ambulatory treatment and efficient patient discharge.



### The challenge

Improve patient treatment by making the transport of blood samples more efficient.

### The solution

Streamlined transport of blood samples by installing Tempus600, point-to-point lines dedicated to the transport of blood samples.

### The benefits

Turn-around-time improved by 30%. Optimised sample flow in the laboratory and freed-up resources. Less hemolysis in blood samples.