



SS. Trinità Hospital *Borgomanero, Italy*

Dr. Anna Tinivella, Director of Diagnostics Department



Consolidating laboratory services at three regional hospitals in Italy seemed like an almost impossible task, but this was the challenge facing Dr. Anna Tinivella and her team. Now, thanks to their partnership with Roche, they have revolutionized the central laboratory at the SS. Trinità Hospital to deliver improved turnaround rates, cost savings and consistently high quality results. The transformation has been so successful that they are now making plans to process even more samples from around the region.

SS. Trinità Hospital, Borgomanero, Italy

- Public hospital central laboratory
-
- 300 beds
-
- 3.3 Mio results per year



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The value of long-term planning

Dr. Anna Tinivella is Director of the Diagnostics Department at the SS. Trinità Hospital in Italy. In combination with a smaller point of care unit in Arona, Lake Maggiore, her central laboratory plays a key role in helping the hospital respond to the needs of 330,000 people across four districts.

But this hasn't always been the case. Twelve years ago Dr. Tinivella was managing three separate laboratories – one in the SS. Trinità, one in Arona and another in a small hospital near Navarra. At the time, while all of her teams were working as hard as possible to deliver a high quality service, it was clear that something would have to change.

“I was coming under increased pressure to think about future efficiencies and to plan for a possible reduction in the number of staff I'd have available. So I decided to invest in consolidation.”



A fresh start

One of the biggest barriers to consolidation at the SS. Trinità had been the space in which the original laboratory was housed. There were huge columns in the center of the room that made it impossible to install larger instruments.

Thankfully, Dr. Tinivella was told that a new area had been created at the hospital in which to build the central laboratory. She also had the foresight to ensure that existing tenders for instruments and technology would all expire at the same time. This meant that she had the perfect opportunity to start again with processes, layout and instrumentation.



Because the single unit would need to analyze an increased number of samples, Dr. Tinivella took the chance to harness the processing power of the **cobas**[®] 8000 analyzer series – the first time this solution had ever been installed in Italy.

To ensure that there was no disruption to the service at the hospital, the **cobas**[®] 8000 analyzer series was set up to run in tandem with the existing laboratories. Once the team was up to speed with the new equipment, the old machinery was switched off and the central laboratory came into being.



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Flexibility in action



One of the first benefits that became apparent to Dr. Tinivella and her team was the modular nature of the **cobas**[®] platform. One **cobas**[®] 8000 analyzer series configuration consists of up to four analytical modules. Alongside the core unit there are three additional modules that process a wide range of clinical and immunochemistry tests. With more than 19 possible combinations, it was easy to tailor the setup of the **cobas**[®] 8000 analyzer series to meet the SS.

Innovative technology that delivers real clinical benefits

Perhaps the best people to explain the difference that the **cobas**[®] 8000 analyzer series has made are those that work with the instruments every day. Cristina Bagnardi is a laboratory technician at the SS. Trinità Hospital and, as she points out, consolidation is just the beginning.

“It was really satisfying to be able to consolidate our testing but the cobas[®] analyzer helps us in a variety of ways. It is quicker than what we had before, the reagent cassettes are much more stable, we have a better grasp of quality control and the machines are so reliable – maintenance isn’t even an issue. It has completely changed the way we work and the service we can offer.”



Unique reagent concept

One of the major benefits of the **cobas**[®] analyzers is the speed and ease of preparation needed before running tests. Previously Ms Bagnardi would spend valuable time charging the reagent machine. Because of small reagent pack sizes, she would also have to calculate the number of tests for each parameter to avoid refilling during a routine operation. Now, thanks to the **cobas**[®] solution, she can simply take the new reagent cassettes from the refrigerator, load them into the instrument and be ready to go. This can be done at any point too – without having to stop the machine and interrupt the workflow process. Even the most frequently used tests are catered for thanks to large pack sizes and long-term on-board stability.



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Intelligent workflow solutions



Once the **cobas**[®] 8000 analyzer series was in position, Dr. Tinivella was able to turn her attention to workflow and think about how to take advantage of its ability to connect with pre-analytical modules.

As well as relocating the blood collection center nearer to the laboratory, she decided to integrate the **MODULAR**[®] **ANALYTICS** EVO (MPA) system with the **cobas**[®] 8000 analyzer series. This transformed sample management. Now there is one dedicated person who can collect all samples and feed them into the MPA, which then automates all pre-analytical steps before transporting the samples to connected clinical and immunochemistry analyzers.

While this has increased both the speed and accuracy of results, the MPA has been able to improve efficiency in another way, as Dr. Tinivella explains:

“Originally our laboratory team needed one tube for clinical chemistry and one tube for immunochemistry but, by harnessing the MPA’s intelligent aliquoting capability, we can now use one primary tube for everything. This has allowed us to reduce the number of tubes we are using by up to 500 per day.”



Sample handling was improved still further with the introduction of Roche’s RSA Pro system which checks and sorts the samples into dedicated racks once they have been analyzed. It automatically decaps and archives completed tests in line with rules that have been set up by Dr. Tinivella’s team, indicating any samples which may need to be tested again.



By automating these processes as much as possible, Dr. Tinivella has been able to minimize the risk of human-error, reduce the number of repetitive and bio-hazardous work steps as well as introduce a platform that is flexible and scalable in line with the laboratory’s future needs.

Dr. Tinivella believes that the future of her laboratory isn’t based around scientific research but is more about providing a reliable, accurate and high volume facility. She is focused on increasing capacity and building on the number of tests her team can process so that, one day, the central laboratory can start accepting samples from other hospitals too.

In Roche, she knows she has a partner that understands the pressures she is under, appreciates the challenges she faces and is working hard to provide effective, flexible solutions for an ever-changing clinical landscape.

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A true partnership

To deliver this continuous development, Dr. Tinivella needed to build a close working relationship with whichever company was successful in the original tender process. In Roche, she found an organization that was there whenever she needed them:

“It’s never easy introducing a new system into a country for the first time but I’m very happy with the technical support we have received. No matter what time of day – whether it was Saturday, Sunday or even during the middle of the night – the Roche technician was always happy to help. The commercial and scientific support has been excellent too – we have a very good relationship with Roche.”

This will be important for the coming years too.



SS. Trinità Hospital

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