

## Video Transcript:

# Global success stories in automated pre-analytics

Before-and-after story Vall d'Hebron,  
Barcelona, Spain



*“Now it’s a completely open environment where people and processes can pass through freely. We’re beyond happy. It’s fantastic”*

**- Francisco Rodriguez Frias,**  
Molecular Area Head, Vall d'Hebron

The Vall d'Hebron clinical laboratories are a merger of the three laboratories in Barcelona city, making us one of the largest and complex labs in Europe.

At the moment, we are attending to around 6,000 patients a day and we make 20 million determinations a year.

83% are within core, but 70% of our catalogue is outside of core. So, at the beginning we had a traditional core. And slowly we developed something we considered very important, which was the transversalization of the laboratory.

On an average day I would process about 200 samples, which would take between four and five hours. The process that would take me the longest would be aliquoting the samples, as they have to be opened and transferred to the secondary tube.

The current process is a bit slow because there's a lot of manual work.

The pre-analytical part is very time-consuming, so our response time is slower and the time in which we can give the pathologists the sample is delayed, so we see a lot of manual work. All these processes are very manual.

That can lead to errors, and so this element is perhaps the one which we'd be most interested in changing and automating in order to reduce errors and to have greater traceability of the samples we process.

My ideal process would be to eliminate the whole manual part, which could generate errors, and to dedicate myself to a more accurate interpretation of results.

Obviously, I would change the complex and risky process in the pre-analytical phase, incorporating it as much as possible.

Besides, we're in an environment where all the analytical systems are together. There is a clear risk of contamination. We have to avoid as much as possible manipulating the samples outside the automated systems.

And if I had a magic wand, I would immediately implement a system that would allow me to eliminate all of these steps.

We had been thinking for a long time that we needed a molecular core, similar to how we have a biochemistry or haematology core. And since we had been searching for this for years, and Roche was the first to provide it, we decided for Roche's solution, which isn't just prime. It's the robotisation or complete automation of PCRs with the 8000 series and with the prime series.

The pre-analytical process is the most complex stage, and the most relevant, perhaps, for in-vitro diagnoses, particularly when you're working with molecular samples like we do here.



Since the installation of **cobas® prime**, the way in which I work has changed noticeably.

It has eliminated many of the sub-processes and it's a much simpler process now.

I receive the samples, place them in their assigned racks, introduce them in prime, and it takes care of the aliquoting, from removing the

tops to placing them in the **cobas® 6800** so that the samples can then be processed.

The integration of **cobas® prime** into our molecular platform has, firstly, allowed us to keep all of the equipment in one space, which reduces times, not only with processing but for our technicians, who don't have to go from one place to another.



and you avoid the risks  
associated with handling the results.

Another great advantage of the **cobas® prime** system is that many of the processes that were previously manual, like aliquoting in secondary tubes or saving samples in order to check for errors at a later date, all of these steps are done automatically.

This reduces greatly the risk of a manual error because, since the equipment is closed, we can control the risk of contamination between samples as well as contamination from the environment.

In addition, in this set-up, the prime is connected automatically via robotic lines to the analytics systems. This has an additional advantage, which is that it has allowed us to fulfil the original vision for the space.

This space was designed to be as it currently is, in a completely open environment, where people and resources can pass through freely and you avoid the risks associated with handling the results.

In terms of the savings or the financial considerations of the cores, which are sometimes viewed apprehensively, because, certainly, the cores are expensive to build, but if one does a proper study of flows and techniques and has a sufficient volume of samples, the return on investment is very quick.

We're beyond happy. It's fantastic.

[Find out more](#)

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