PHILIPS

IntelliSpace Portal 9.0

Customer story

Department of Radiology, University Hospital of Cologne

Who?
Dr Bettina Baessler, MD
Research Group Leader, Multi-Parametric Imaging

Where?
University Hospital of Cologne, Germany
- 6800 employees
- 59 department and institutions
- One of Germany's largest hospitals
- Center of excellence for research, teaching and clinical practice

Challenge?
Support excellent clinical care and leading research with advanced visualization tools for cardiology

Solution?
Philips IntelliSpace Portal 9.0

All your advanced analysis needs, one comprehensive solution

With rising caseloads and ever-more complex cases in cardiology, informed decisions and confident diagnoses are key. Today, more and more cardiovascular examinations are being performed using MR. Advanced visualization can streamline diagnosis, and enhance treatment and follow-up – in MR and across multiple imaging modalities.

Dr Bettina Baessler from the University Hospital of Cologne specializes in cardiovascular imaging in both research and clinical practice. The facility is a leading site in Germany, as well as a worldwide luminary site, and a major teaching hospital. To assist her work and enhance workflows, Dr Baessler leverages applications from the cardiovascular suite of IntelliSpace Portal 9.0.

Everything in **one place**

Speed and efficiency

As a major imaging institute, every week, the radiology department at the University Hospital of Cologne performs 10 to 20 MR scans which require functional analysis and around the same number again requiring quantitative cardiac mapping. Add to this an average of 30 scans performed for research purposes plus CT exams, and you have a high volume of procedures.

In light of this, it is important for Dr Baessler to use her time as efficiently as possible: "I need tools to be able to read and evaluate quickly. Fast loading of images and rapid analysis with the latest advanced visualization techniques are essential to my work," she explains.

Against this background, Dr Baessler has been using Philips IntelliSpace Portal for a number of years: "I began using version 6 several years back and have upgraded to benefit from the latest functionality. I also test beta versions and deliver my feedback to Philips – something that proves very valuable. It is a successful and fruitful collaboration."

One comprehensive overview

Dr Baessler values IntelliSpace Portal for a number of reasons: "Not only does it provide rich clinical insights, but it also delivers time-saving advantages," she says. IntelliSpace Portal 9.0 offers wide range of specialist clinical applications across multiple modalities designed to assist radiologists and cardiovascular experts in diagnosis, treatment planning and follow-up. The tools are based around an efficient, patient-centric workflow and support viewing, analysis, post-processing, reporting and surgical planning.

"When you use IntelliSpace Portal, you have one interface for everything and all tools in the same place. It's a one-stop shop and integration with PACS makes it simple to use. The algorithms for post-processing and functional analysis in clinical routine are excellent and I can perform many tasks," says Dr Baessler.

During the course of her research, Dr Baessler has encountered a range of software tools for advanced visualization. "But I am sticking with IntelliSpace Portal because, in my opinion, it's the best," she says.

MR Cardiac: richer insight, shorter time

Before Dr Baessler began using MR Cardiac for functional analysis, she would perform this task manually. "Because it was so time-consuming, we had to leave out phases, therefore skipping some vital information. There simply wasn't enough time in clinical routine to analyze the data in the phases. Even without segmenting any phase, analysis of one dataset takes just a few minutes. Since we've been using MR Cardiac on IntelliSpace Portal 9.0, the whole process including all phases takes just a few minutes. So we get richer clinical data in a much shorter time."

Dr Baessler also particularly values the bookmarking feature of MR Cardiac. This frames any view of the data that is relevant for saving for use by other clinicians or to discuss at a later date. "This is useful for us as a teaching hospital, as it lets us go back into the data and review or correct what a resident or less experienced colleague has done. In the past, mistakes or inconsistencies might have been overlooked. But with bookmarking, we have greater consistency in our reporting and analysis."

By using MR Functional Analysis in MR Cardiac, Dr Baessler experiences time savings of up to 80% in her workflow.

MR Cardiac
Manual procedures

* Results are specific to the institution they were obtained and may not reflect the results achievable at other institutions

Partnering with customers to bring **innovation to life**

Expanding in quantitative mapping
Dr Baessler has tested a number of features of IntelliSpace Portal 9.0 as well as in previous versions to optimize the workflow version by version. She works closely with Philips to provide feedback and close the R&D/clinical deployment loop. "We have a really good relationship and it's great to see my suggestions for improvements being implemented. Philips listens to customer needs and strives to meet them," explains Dr Baessler.

One new feature added to IntelliSpace Portal 9.0 is motion correction functionality in MR Cardiac Quantitative Mapping that may enhance map calculations. "I have noticed a major improvement in this area since the previous release," says Dr Baessler. "The high quality of the algorithms has allowed me to consolidate all my research work in cardiac mapping to the IntelliSpace Portal."

For Dr Baessler, quantitative mapping is an exciting growth field for the future and an area that is likely to become more and more relevant in research but also in clinical practice. "IntelliSpace Portal 9.0 supports these developments by providing effective tools for mapping," she says.

Robust TAVI planning
Dr Baessler and her colleagues also leverage a number of CT tools from the IntelliSpace Portal 9.0 cardiovascular suite, including CT TAVI Planning, CT Comprehensive Cardiac Analysis (CCA) and Multi Modality Advanced Vessel Analysis (AVA).

Doctors at the University Hospital of Cologne's Heart Center perform around 400 TAVI procedures every year. "We have a high volume of cases and CT TAVI Planning can save us valuable time," explains Dr Baessler. The application provides assessment and measurements of relevant heart structures for TAVI device sizing. "In the past, this was all done manually, but by using CT TAVI Planning, we can shorten the time it takes for each case by around four or five minutes – which is a huge saving when you consider how many procedures we perform here. Moreover, there is rarely a need to correct anything manually as the algorithms calculate so reliably," says Dr. Baessler.

In addition to TAVI planning, Dr Baessler also uses Multi Modality AVA: "I found this to be a robust application that delivered the results I expect. I have compared the software against the tools I use today and found the AVA functionality in IntelliSpace Portal 9.0 to be quick, easy and effective relative to previous versions of the software even."

User friendly and intuitive
Dr Baessler rates the cardiovascular suite on IntelliSpace Portal 9.0 very highly. "It is user friendly and simple to learn," she says. "Even if you are a complete novice with no experience of advanced visualization, you can sit down at a Portal workstation and you know what to do. So many things are automated or guide you through step by step."

According to Dr Baessler, another key advantage, particularly in the research field is being able to integrate datasets from other vendors[1]: "Having the ability to load data from third-party sources is very useful for multi-vendor clinical trials." [1]

Moreover, IntelliSpace Portal is now equipped with adaptive machine learning functionality which learns clinicians' preprocessing patterns and adjusts configurations accordingly. This means the solution is responsive to real needs and automatically adapts to each new case opened.

Dr Bettina Baessler, MD

> "IntelliSpace Portal is evolving all the time and in step with our needs. Short development cycles and fast adoption of new features give me confidence."
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> **Dr Bettina Baessler, MD**
> Research Group Leader, Multi-Parametric Imaging at the University Hospital of Cologne, Germany

[1] Please contact your local Philips representative for details on multi-vendor coverage

“**All our AV needs** are covered.”

Dr Baessler and her teams at the University Hospital of Cologne use advanced visualization for CT and MR datasets for almost every examination they perform. “I like to combine the raw data, the information I get from our PACS and the insight from IntelliSpace Portal 9.0 to achieve the best possible insight,” she explains. “We’re introducing our next generations of clinicians to the system early on to make sure everyone is aware of the full extent of its capabilities. The University Hospital of Cologne is utilizing advanced visualization tools more and more – and IntelliSpace Portal 9.0 is playing a big role in this development.”

> “The propagation of contours in MR Cardiac is superb compared with other tools I have experienced. This means different users can accommodate different workflows and get more clinical data in much shorter time”

Dr Bettina Baessler, MD
Research Group Leader, Multi-Parametric Imaging at the University Hospital of Cologne, Germany

Ready to explore IntelliSpace Portal 9.0 and the cardiovascular suite of applications for yourself?
Please contact your local Philips representative for more information.

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