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CENTRE
CARDIO THORACIQUE

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Cardiology



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Cardiothoracic Center of Monaco

Siemens European Reference Center Cardiovascular Medicine

Two strong

Cardiothoracic Center of Monaco (C.C.M.)

The Cardiothoracic Center of Monaco (C.C.M.) opened in 1987 with the vision to have an international center where medical surgical teams from around the globe would treat patients from the Mediterranean region as well as other European countries.

Patients receive the highest quality of treatment due to the clinical expertise, access to the latest technologies, advanced procedures, and the uniquely integrated and value-based healthcare delivery model.

Some of the advanced interventions include the percutaneous treatment of congenital malformations, transarterial valve replacement, and endovascular aortic therapies. In addition, the center specializes in several surgical procedures, including left ventricular reconstruction in severe cases of ischemic cardiomyopathy and hybrid aortic surgery, which are carried out in a dedicated hybrid OR.

“ Our establishment as Siemens Reference Center is a major step in our goal to advance the complete medical and surgical treatment of all thoracic and cardiovascular disorders. ”

Prof. Vincent Dor,
CEO Cardiothoracic Center of Monaco

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one

partners

Siemens Healthcare

Siemens Healthcare is one of the world's largest suppliers to the healthcare industry and a trendsetter in medical imaging, laboratory diagnostics, and medical information technology. Siemens Healthcare offers its customers products and solutions for the entire range of patient care from a single source – from prevention and early detection to diagnosis, treatment, and aftercare. By optimizing clinical workflows for the most common diseases, Siemens Healthcare also makes healthcare faster, better, and more cost-effective.

As a solution provider, Siemens Healthcare is in continuous interaction with expert cardiologists, cardiac surgeons and healthcare management worldwide, which has provided us with a deep understanding of the clinical and economic requirements of cardiovascular care. In the field of cardiology, Siemens Healthcare drives the development and optimization of clinical processes for specific diseases. It is our aim to develop workflows and solutions, utilizing the most advanced technologies, that will provide the best possible outcome for each individual patient along the entire continuum of diagnosis and therapy.

The cardiology experts at Siemens Healthcare are dedicated to advancing these concepts and developments in partnering closely with leading healthcare providers.

“Bringing two strong partners together to enable people, services, and technology to deliver better clinical value and improving operational outcomes in cardiovascular care.”

Dr. Bernd Montag
CEO Siemens Healthcare

shared vision





Siemens European Reference Center Cardiovascular Medicine

Based on a long history of a successful partnership, the Cardiothoracic Center of Monaco (C.C.M.) and Siemens Healthcare have combined strengths to establish a cardiovascular reference site. The scope of the partnership is to share knowledge in multi-modality clinical trainings and fellowships, exchange experience by hosting visitors to discuss clinical workflows and best practices and to further support development by conducting collaboration projects that validate new diagnostic and therapeutic applications in a multimodality setting for specific clinical conditions. At the Reference Center, multimodality clinical trainings and fellowships as well as clinical workflow visits enable knowledge sharing and exchanging experience. In various projects, the two partners are developing and validating new diagnostic and therapeutic concepts that concentrate on multimodality clinical workflows in individual disease patterns.



Exchanging Experience

during customer visits demonstrating the use of multiple modalities

**What clinical opportunities arise by setting up a Hybrid OR?
What should be considered during the procedural planning?
How do you implement new clinical pathways?
How do you ensure the efficient management with an increasing number of cardiovascular disease (CVD) patients?**

Experience the impact that state-of-the-art medical technology and IT can make on the quality and efficiency of cardiovascular care: take part in a site visit that will offer you a demonstration of the integrated use of multiple modalities in your clinical routines. Our visitor program emphasizes the use of information technology for reporting and evaluating multi-modality cardiovascular cases. In order to provide relevant insights of clinical activities, the visits focus on disease-driven clinical workflows, and offer a combination of live cases, demonstrations of archived cases, and lectures.

The visit program at C.C.M. will be tailored to the individual objectives of our guests and guided by our experienced professionals focussing on selected topic areas such as:

Advanced interventions in the cathlab and Hybrid OR

This topic includes but is not limited to the latest procedures for the treatment of thoracic aortic

aneurysm using the hybrid technique, transfemoral and transapical aortic valve replacement, and the treatment of congenital heart diseases these visits will focus on the role of imaging in the pre/peri/post interventional phase.

The role of advanced imaging in cardiovascular surgery and interventions

Including live cases in or from the OR, these visits highlight appropriate advanced imaging modalities for mitral and aortic valve surgery, abdominal vascular surgery, and left ventricular reconstruction.

Noninvasive diagnostic imaging

These visits focus on the diagnostic evaluation of myocardial ischemia, perfusion, and viability as well as the planning and guidance of therapeutic interventions – integrating clinical cases and IT solutions that support the clinical workflow.



“With this unique structure, everyone from children to the elderly gets top treatment, precisely tailored to their case, using the latest technology.”

Prof. Gilles Dreyfus,
Medical Director

“Expertise, application, and the continual development of technologies and workflows are fundamental to provide value-based healthcare and thus attract patients.”

Guy Nervo,
Manager C.C.M.

MAGNETOM Skyra



Sharing Knowledge

in multimodality clinical trainings and fellowships

**How does advanced imaging contribute to evaluate myocardial ischemia, perfusion, and viability?
How does multimodality imaging improve the planning and conducting of advanced interventional and surgical procedures?
How does image integration improve procedures by helping to determine, guide and confirm the right therapy for the right patient at the right point of care?**

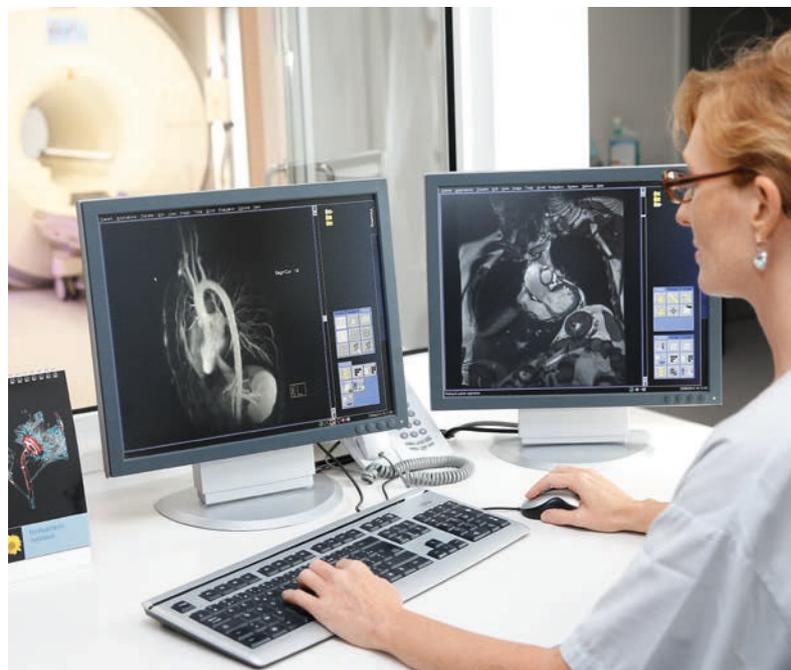
Developing and sharing in-depth expertise is essential to answer the questions that arise in the challenging diagnostic and therapeutic processes in patients with cardiovascular disease. In addition, as the healthcare economic climate changes, clinical practice evolves, it is essential to learn from healthcare providers that have successfully streamlined processes to obtain the most from their investments.

The full power of medical technologies can only unfold if clinicians know how to best make use of them – and this requires ongoing training efforts to keep pace with the latest emerging technologies. To enhance knowledge-sharing between internationally renowned cardiologists, radiologists, and cardiac surgeons, the Siemens European Reference Center Cardiovascular Medicine conducts fellowships and clinical trainings. The events cover a wide variety of multimodality and workflow topics, which are

offered by the clinical experts, using the most advanced imaging systems of C.C.M. The subject areas include:

- Noninvasive cardiovascular imaging and advanced image post-processing
- Peri-interventional imaging in the Hybrid OR
- Comprehensive assessment of acute and chronic myocardial ischemia
- Comparative evaluation of cardiovascular imaging modalities
- Dedicated Cardiac CT and Cardiac MRI trainings and fellowships

The trainings will be conducted at the Cardiothoracic Center of Monaco and will be customized to meet the individual objectives.



Driving the development of new solutions

through multimodality collaborations and advisory meetings

Bringing together knowledge, experience and innovation at the Siemens European Reference Center Cardiovascular Medicine provides support for the research and development of Siemens Healthcare by consulting on scientific trends, applications, and state-of-the-art modalities. Going beyond the state-of-the-art modalities and applications at C.C.M. will support the investigation of new, disease specific cross-modality analyses and thereby drive the development of the diagnostic investigations and pathways of the future.

This support includes clinical advisory panels, workshops with international key opinion leaders and presentations at scientific symposiums by C.C.M.'s team of doctors, as well as interdisciplinary meetings with industry and clinical partners to review the latest developments in cardiovascular medicine.

Furthermore, the Siemens European Reference Center Cardiovascular Medicine and Siemens Healthcare will focus on the analysis of existing clinical structures and processes in cardiovascular medicine. The aim of these analyses is to evaluate key factors to enhance processes and thereby to define models of mature clinical organizations of the future. This approach aims not only to support the development of new clinical solutions by Siemens, but also to assist other clinics in the implementation of efficient, reliable clinical processes and structures.

“Optimizing clinical workflows through the integrated, cross-modality use of IT and all relevant modalities is the crucial factor in an efficient treatment.”

Stéphane Rusek, PhD,
Head of IT Department C.C.M.

Medical Technology at the Reference Center

Dual Source CT – SOMATOM Force

- 4D imaging at half the regular dose
- Preoperative planning for hybrid and conventional surgery

Hybrid OR/Cathlab – Artis zee and syngo DynaCT

- Hybrid endoprosthesis procedures
- Percutaneous Interventions and hybrid aortic therapies
- Minimally invasive treatment of congenital malformations

MAGNETOM Skyra

- Comprehensive evaluation of cardiovascular status
- Workflow support for cardiac assessment

Imaging IT – syngo.via

- Integrated multimodality workspace
- Assessment of multimodality images
- Automated 3D reconstruction, processing, and reporting

Echocardiography – ACUSON SC2000 Prime

- Fully automated 3D LV
- Automated flow quantification for advanced preoperative and follow-up cardiac assessment
- Mitral and aortic valve reconstruction and assessment



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The statements by the Siemens' customer described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.



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