



**Govern
de les Illes Balears**

Hospital Son Llàtzer

Hospital Son Llàtzer, Palma de Mallorca



Multi-Media PACS networks healthcare service
on the Balearic Islands

Digital patient data
and images for all
public hospitals with
Centricity® RIS/PACS

eHealth project on the Balearic Islands sets new standards with Centricity® RIS/PACS



Hospital Son Llàtzer, Palma de Mallorca, sets new standards in networked health environment with a GE Healthcare IT-solution.

All public hospitals and about 80 connected Primary Health Centers in the region “Islas Baleares” are building the foundation of a health service network which is – with its scope and depth of integration – unique in Europe. Using a master patient index, Balearic doctors can access patient data and medical findings anytime. Via a Web-Viewer solution they are able to retrieve digital data, films and radiological images wherever they are located. The centralised multi media archive solution in the Son Llàtzer Hospital at Palma de Mallorca offers radiology images, extracts of endoscopy treatments, dermatology patient images or data out of ophthalmology exams to all clinicians. This is all based on GE’s Centricity PACS with an advanced infrastructure and excellent DICOM capabilities. Effective processes not only cut down on costs but also can reduce a patient’s stay in the hospital.

The success story of the Balearic Islands eHealth project began in 2001 with the building of the Son Llàtzer Hospital and a Centricity RIS/PACS solution by GE Healthcare. From the start, the planning projected a digital operation throughout the site.

To lead innovative ideas to success requires more than just state-of-the-art products. With Luis Alegre Latorre, Director Asistencial IB-Salut and Miguel Cabrer, eHealth Advisor, the project found the support of two visionaries who are able to recognise trends and implement them successfully. Together, they developed the RIS/PACS project of Son Llàtzer within five years to a regional eHealth solution with referrer’s portal and a central multi-media archive. Luis Alegre Latorre: “The success of this project demonstrates that you can streamline processes and save costs in healthcare with the help of modern IT solutions.” The realization of this vision is thanks to a good cooperation between all parties involved and a professional project implementation by GE Healthcare.



Luis Alegre Latorre: „The advantages of an eHealth environment are obvious: Less personnel costs, shorter processes and an effective workflow. Before we had one assistant for three doctors. Now we have less than ten for all.“

From PACS to eHealth



Miguel Cabrer: „The value of integrated IT-solutions is very high. With the help of RIS and KIS integration orders from all special departments arrive automatically.“

Right after the implementation of GE Healthcare’s Centricity solution in radiology, the chief medical officers and the hospital management of Son Llàtzer recognised the enormous advantages of an enterprise wide digital image and data distribution in radiology. “Nobody needs to wait a long time anymore for radiological data. Via intranet, all images are available on demand, immediately, and no matter where you are in the building. The wish for a similar solution in dermatology came up fast,” remembers Miguel Cabrer.

Just at that moment the general conditions in healthcare service changed in Spain. In 2002, the central administration of public hospitals was delegated to the regions by the government in the capital of Madrid. The region “Islas Baleares” – as all other regions in Spain did – founded IB-Salut, their own healthcare enterprise,

which directly reports to the regional Ministry of Health and Consumer Service. All regional health services received a budget to ease the start into a new autonomy. For Luis Alegre Latorre, this meant the expansion of Centricity RIS/PACS into a regional eHealth project. Based on the positive experiences with this solution in the hospital of Son Llàtzer he was convinced it would be successful.

“In the meantime, the University Hospital Son Dureta, the Manacor Hospital as well as the Can Misses Clinics in Ibiza and one hospital in Menorca are endowed with a standardised Centricity RIS/PACS solution. Moreover, a total of about 80 Primary Health Centers (PHCs) are connected to the network”, says Luis Alegre Latorre, who is excited to share the success of this investment. The remaining hospitals are about to be equipped.

One central databank for all patient images



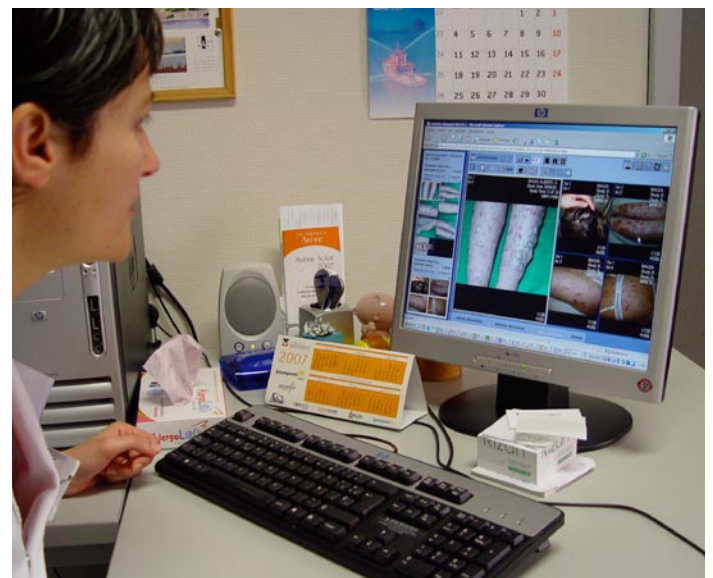
Doctor Carmen Martinez: „With our modern worklist management any clinician or GP can send an examination request to the RIS.“

The total healthcare network on the islands achieved a depth of integration, which is unique across Europe. Usually ambulatory exams in Spain are provided in so called Primary Health Centers (PHCs), where various medical specialists take care of the population. Via an online portal, doctors of PHCs have direct access to the electronic documents of their patients. The Balears already use a master patient index, which allows physicians in any PHC to retrieve electronic records of any

registered patient. In reality this means that an inhabitant of Menorca who unfortunately has an accident for example in Mallorca or Ibiza, easily releases all personal, relevant medical data in all PHCs and clinics at the push of a button.

In the radiology department of MD Carmen Martinez, Cap d'Unitat de Radiologia conventional films and images never existed. "Here in Son Llàtzer, the radiologists work on integrated RIS/PACS workstations. The speech recognition system assures that a medical report can be dictated rapidly and finished without major involvement by a secretary.

During a stroke every second counts. The University Hospital Son Dureta is the only medical center of the region with a special department for stroke patients. Thanks to the centralised image archive the "stroke unit" specialist can already prepare an exam for the suffering person while he/she is still in transit to Son Dureta.



Retrieving images within a second makes the work of Doctor Rosa Taberner Ferrer, Dermatologist, much more efficient.



Once a report is done it is accessible within a minute for all departments in the network – in- and outside the hospital.

The Dermatology Institute in Son Llàtzer established a teledermatology project with a selected Primary Health Center. For example, the PHC's dermatologist photographs an eczema, converts the data into a DICOM (Digital Imaging and Communication in Medicine) compatible format, sends it digitally to the PACS and finally transfers the image to Dermatologist MD Rosa Teberner Ferrer at the Son Llàtzer Hospital. "From this image we can immediately decide if the patient needs to visit us or can be further examined by his private practitioner,"

concludes Rosa Teberner Ferrer, from her first and very positive results of the study. The main advantage she derives from this network is the digital image archive by GE Healthcare. Previously, when slides were still produced, she rarely had the possibility to compare images of older skin diseases during an exam. Today the dermatologist is able to not only compare different images with a few clicks on her screen, but is also able to consult a huge dermatology images archive. This tremendously improves her daily work routine.

Telemedicine reduces costs



Dr. Carlos Dolz: „For me ubiquity is key for the success of digital networked eHealth solutions. Information is available whenever and wherever needed.“

Her colleague Dr. Carlos Dolz from the Endoscopy department also greatly appreciates the advantages of the digital image archive. From any of the 550 computers in the hospital, he can easily retrieve digital images and videos of endoscopy sequences via GE Healthcare's Web-Viewer. Moreover, he can easily compare endoscopy with radiology images. This increases the safety of diagnoses. In commenting, Dr. Carlos Dolz says, "Thanks to the multi-media PACS, images and medical records are available ubiquitous. This is the decisive advantage of a digital workflow."

An intelligent image data management beyond radiology and cardiology is still a future wish in many other European countries. In Mallorca, Menorca and Ibiza this is already reality. Doctors archive the different images of dermatology or endoscopy findings by means of a so called "DICOMizer" in a DICOM format, a standard protocol for medical applications. The "Medical Images Organiser" (MIO™) by C2C helps, to allocate the specific patient information to the appropriate image.

A notebook is all Dr. Bernardino Comas needs to show the patient his radiological, dermatological or endoscopy images.





J. M. Campuzano Casasayas: „IT became a key functionality for hospitals. It saves time, costs and improves the quality of clinical workflow. There is a clear payback of the investment.“

The digital workflow in Son Llàtzer drives efficiency and profitability. J.M. Campuzano Casasayas, Managing Director says, “Modern IT solutions are a key factor for the success of a healthcare enterprise. IT improves the whole cycle of care a patient goes through during his stay in the hospital and thus significantly helps to save costs and time.” The investment truly pays off according to the hospital manager. This is especially the case when all clinical work steps are following the digital workflow as in Son Llazer. In other European hospitals ward physicians still show radiological films to their patients. Thanks to Web-Viewer, in Son Llàtzer, a doctor is able to bring his small laptop directly to the patient’s bedside where he explains the medical findings.

Luis Alegre Latorre: “With the regional solution on the Balearic Islands IB-Salut demonstrates that eHealth does not only function but pays off.” ‘Do today what others think of only tomorrow’, could be a business slogan of IB-Salut, Luis Alegre Latorre and Miguel Cabrer used to position the ‘Islas Baleares’ as a leader of European eHealth projects.



Centricity RIS/PACS- Postprocessing

GE Centricity® RIS/PACS integrated solutions drive and optimise the complete radiology workflow from order entry to image report and distribution, thanks to high performance and advanced functionalities which are perfectly adapted to all users needs:

- Ultra-fast image display and storage of all data
- More than just 3D: Colonography, vessel analysis, CAD and much more ...
- Voice-control for faster reporting
- Always free choice between digital dictation, offline recognition and online recognition
- Intuitive and highly customisable user interface for easy and effective daily use
- online monitoring of performance via business dashboards to optimise workflow and reduce waiting times
- True enterprise PACS for Radiology, Cardiology and all other kind of images

www.gehealthcare.com



GE imagination at work

© 2007 General Electric Company,
doing business as GE Healthcare

Hospital Son Llàtzer
Carretera manacor, km 4
71980 Palma De Mallorca
+34 871202000
www.hssl.es

095-0907 CB-IIS-RP-EN-1007-V01