



## Serendipia: Castilla-La Mancha telepathology network

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### Abstract

**Aims:** The main aims of SERENDIPIA project are:

- Providing all the necessary image acquiring devices and computer equipment needed in a digital Pathology Department.
- Developing an Information System that allows Pathology Departments to storage and manage the reports and its images.
- Developing a WEB application that allows the communication between the different Pathology Departments, sharing reports and images.

**Methods:** The scope of the first phase of the SERENDIPIA project includes seven hospitals of Castilla-La Mancha region. Three of these hospitals are small hospitals dependent on a reference hospitals. Therefore, the project has to provide all the mechanisms and tools for do the collaborative work between hospitals. With this purpose, Pathology Department is provided with:

- Digital cameras with WIFI technology for autopsy room.
- Digital imaging systems for the grossing room with touch screen and camera remote control.
- High resolution digital cameras adapted to optical microscopes.
- Digital Scanners for creating virtual slide images.

**Results:** SERENDIPIA project provides all the necessary image acquiring devices needed to cover all kind of images that can be generated in a Pathology Department. In addition, in the SERENDIPIA project an Information System was developed that allows, on the one hand, covering the daily workflow of a Pathology Department (including the storage and managing pathology reports and its images). And on the other hand, the Information System provides a WEB telepathology portal with collaborative tools like second opinion.

**Discussion/Conclusion:** Castilla-La Mancha has implemented a standard-based solution for acquiring, archiving and communication of Pathology digital images. In addition, Pathology Information System (LIS) has been able to manage the relationship between the reports generated by the pathologist and its corresponding images.

This solution is allowing other specialists, like dermatologist or haematologist, to have access to this kind of images. As well as improving the training of students and medical residents.

By using the teleconsultation and the distance diagnostics through digital imaging will offset the shortage of specialist in Castilla-La Mancha region.

Finally, by using the medical standard in the development of the SERENDIPIA project will provide, in the future, an interconnection with others telepathology networks for access, exchange, and upgrade electronic medical records through the Internet.