Remote Follow-up of Liver Transplant Patients: a Telemedicine Implementation Project in Latin America

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HOSPITAL ITALIANO de Buenos Aires

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Introduction

- The Hospital Italiano de Buenos Aires is internationally recognized among health care organizations as a care giving leader, and a referring educational and research center in Latin America.

- 625 liver transplants have been performed, transforming this hospital into a national and international center of reference.

Introduction

- Follow-up care of the patients with liver transplant by a multidisciplinary team is a complex task.
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- Complexity increases considerably if the patient does not live in the city where the procedure was performed.
- This project aims to improve the quality of the care of our patients, through the interaction between our transplant team and follow-up professionals in charge, allowing referring doctors, during the monitoring, to access medical data of their patients.

Materials and Methods

The multidisciplinary team provides comprehensive care to each patient, from the evaluation visit through the transplant procedure and postoperative period.

Network of teams conformed by physicians located outside the area of Buenos Aires which refer us the patients.

These associated providers continue monitoring the evolution when the patients return to their home places.

Health Information System (HIS)

Electronic Health Record "Itálica"

allows the centralization of all the health care information of the patients

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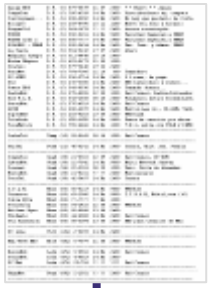
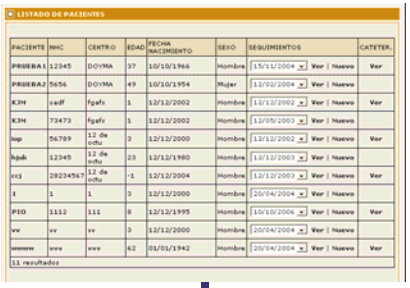
Liver Transplant Program Processes





1 Patient Enrolling

2 Aptitude Evaluation

3 Pre-Transplant Waiting List

4 Transplant

5 Post-Transplant Follow-up List

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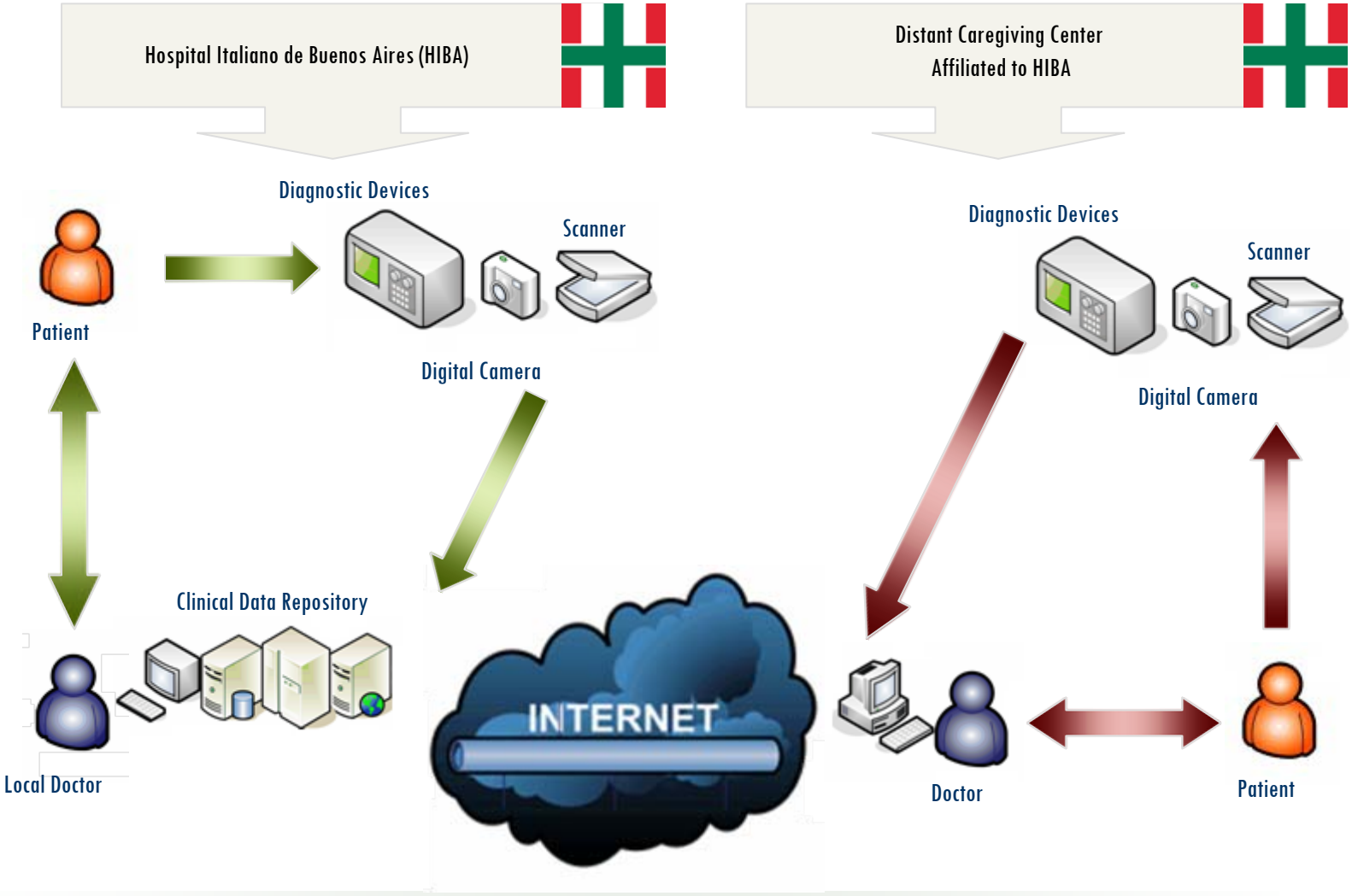
Local Data Registry System



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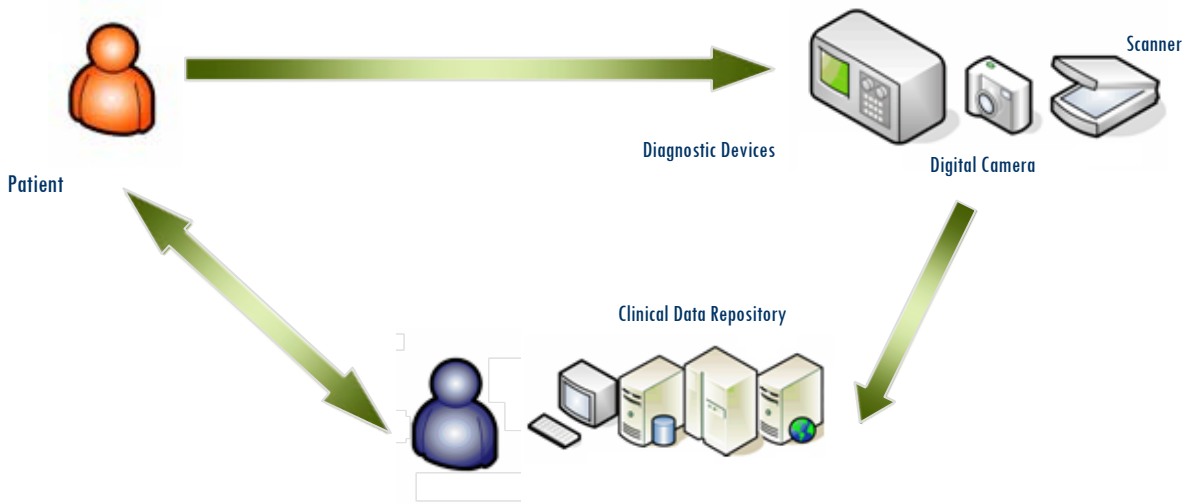
Local Data Registry System

- Enrollment of patients refers to the capture of certain administrative data (for example the allocation of the medical team that will continue with the monitoring) and medical data (diagnosis pre-evaluation, etc.).



- All data is enter by physicians of our institution, registered in our HIS, and then, associated with other patient's medical data in the Electronic Health Record (EHR).

Remote visualization and data registry system

- Once data is generated, referring doctors may visualize this information along with the rest of the patient's EHR data, from their offices via Internet. They access the system through a connection established on a VPN (Virtual Private Network).

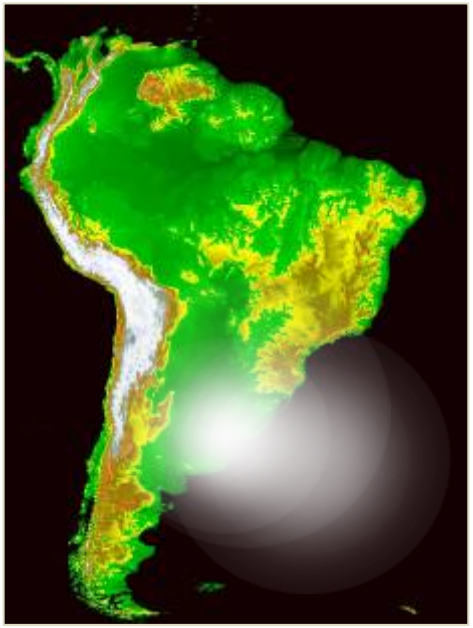
- The remote data entry module is used by the referring physicians, and allows them to record any medical events during the period between Hospital Visits. They may also enter results of complementary studies.
- An archive storage system (text documents, images, videos, etc.) that includes a viewer of JPEG images and DICOM files, which allows us to reproduce a CT scan or MRI console in practically any PC used as Workstation.

Technological requirements

- Software: Windows XP SP2
- Hardware: Pentium IV with 512 Mb RAM.
- Broadband connection: 256 Kbps.

Results and Discussion

- Two distant monitoring medical teams
  - →Buenos Aires (República Argentina)
  - →Montevideo (República Oriental del Uruguay)
    - 78 patients



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Results and Discussion

- There is no way to believe that the system will replace contact between the referring doctors and our local transplant team, but is a complement for the daily transdisciplinary work.

- We expect to generate an academic and clinical community, which allows care givers access the patient´s medical records with this remote data entry module.

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