ULTRASOUND TELE-ASSISTANCE FOR THE SCREENING AND SURVEILLANCE OF HEPATOCellular CARCINOMA

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MAIN OBJECTIVE
Describe the development and implementation of a Web application that allows efficient communication between general practitioners and ultrasound specialists, in order to support a telescreening programme for patients with HCC (Hepatocellular carcinoma):

- screening process
- protocols and methods for telescreening
- patient’s inclusion criteria into the telescreening program
- electronic medical record and diagnostic
INTRODUCTION

Strong arguments to sustained Screening for HCC:
- the risk for developing HCC in these patients is 1-6%/year
- target population is easy to identify using clinical, biochemical, serological and imaging criteria
- screening tests using US and alpha-fetoprotein (AFP) have a good sensitivity and specificity values
- HCC diagnosis is confirmed by numerous imaging techniques, which characterize the vascularisation pattern of the focal liver lesion
- *side effects of screening tests are minor, the overall cost is acceptable and efficient therapeutic options are available*
SYSTEM SOLUTIONS

- Hepatocellular carcinoma telescreening system definition
- Electronic patient records
- Sistem examination protocols and methods for telescreening
Sistem Examination Protocols and Methods for Telescreening

- Patient’s inclusion criteria into the telescreening
- Patient’s electronic medical record
- Specialist’s structured answer form
HEPATOCELLULAR CARCINOMA TELESCREENING SYSTEM

Ultrasound Tele-Assistance for the Screening and Surveillance of Hepatocellular Carcinoma
ULTRASOUND TELE-ASSISTANCE FOR THE SCREENING AND SURVEILLANCE OF HEPATOCELLULAR CARCINOMA

Telehepascan Web Application
Ultrasound Tele-Assistance for the Screening and Surveillance of Hepatocellular Carcinoma
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THE DEVELOPMENT ENVIRONMENT

- ASP.NET 2.0
- ADO.NET
- SQL Server 2005
- Fiability
- Flexibility
- Open
CONCLUSIONS

- allows early detection of the hepatocarcinoma to patients presenting risk factors for this disease and which has to be monitored during months, perhaps years
- possible to detect early the HCC and evaluate it by an expert center that will establish the optimum method to solve each case, indicating the phases that will be followed after the diagnosis
- electronic patient records allow development of a optimum structured medical database that will facilitate an thorough analysis of the complex multimodal medical information, facilitating development of various studies in the HCC field