

[www.uslsudest.toscana.it](http://www.uslsudest.toscana.it)  
#salutetoscanasudest

# LA MEDICINA DI LABORATORIO NEL TERRITORIO



## AREZZO

Via Curtatone 54, 52100  
Centralino 0575 2551  
P.I e C.F 02236310518

## SIENA

Piazza Rosselli 26, 53100  
Centralino 0577535111

## GROSSETO

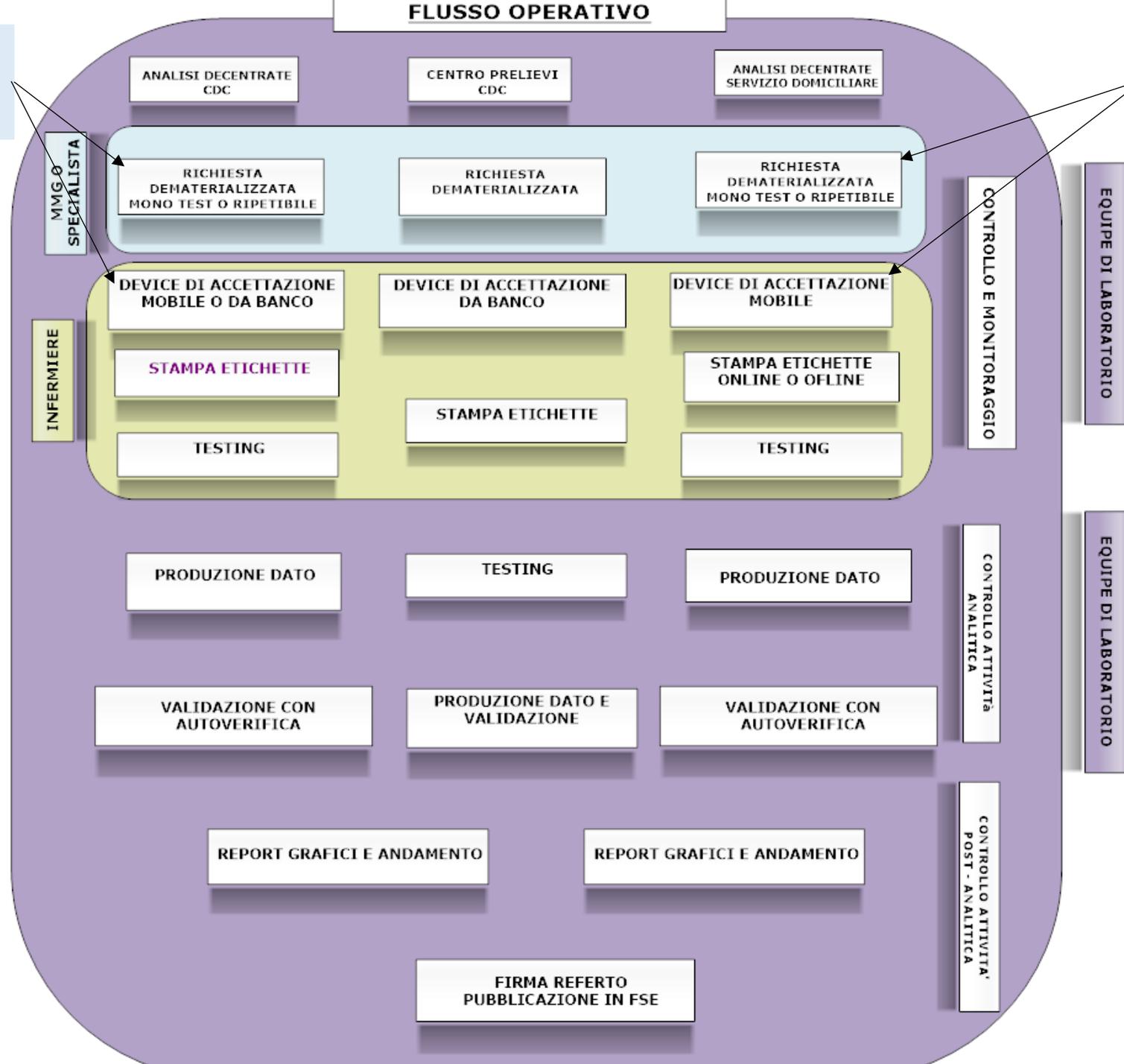
Via Cimabue 109, 50100  
Centralino 0564485111



Servizio Sanitario della Toscana

ONIT – SISTEMI DI ACCETTAZIONE E PRENOTAZIONE RT

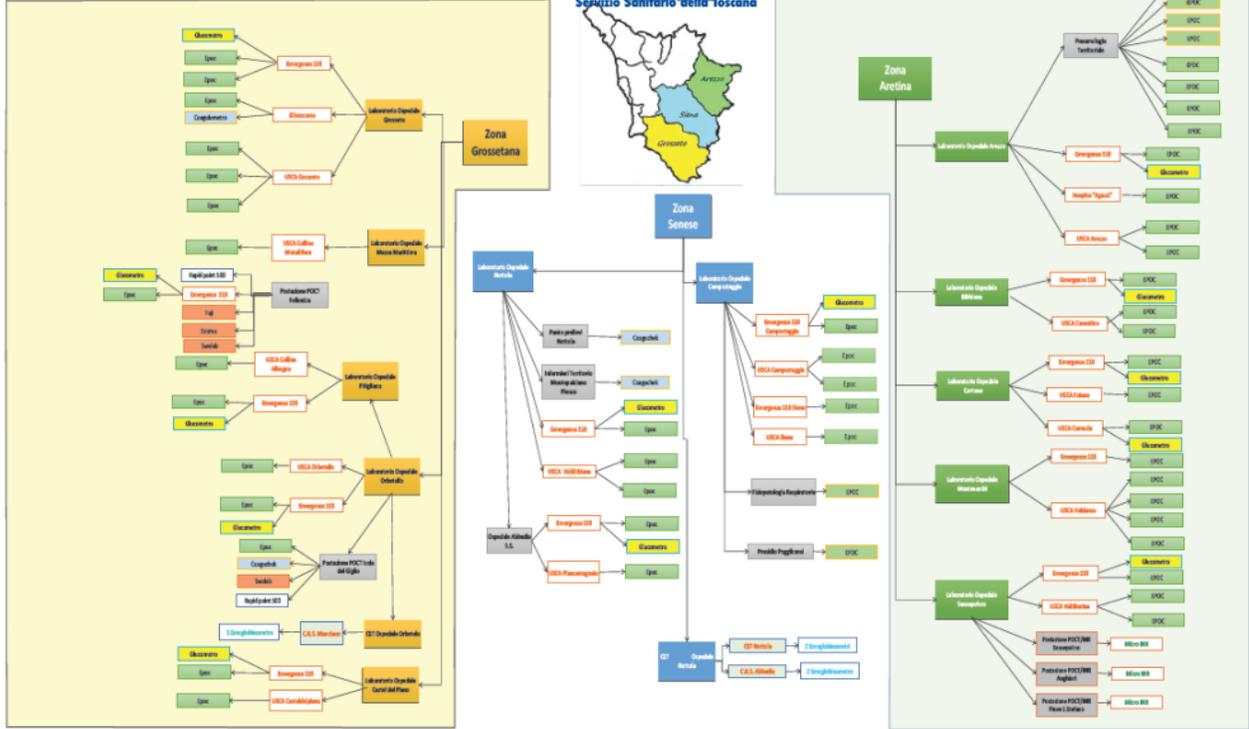
ONIT – SISTEMI DI ACCETTAZIONE E PRENOTAZIONE RT



FIRMA REFERTO  
PUBBLICAZIONE IN FSE

# SISTEMI DA INTEGRARE

## RETE POCT



## SISTEMA PRELIEVO CAMPIONE BIOLOGICO E REFERTAZIONE

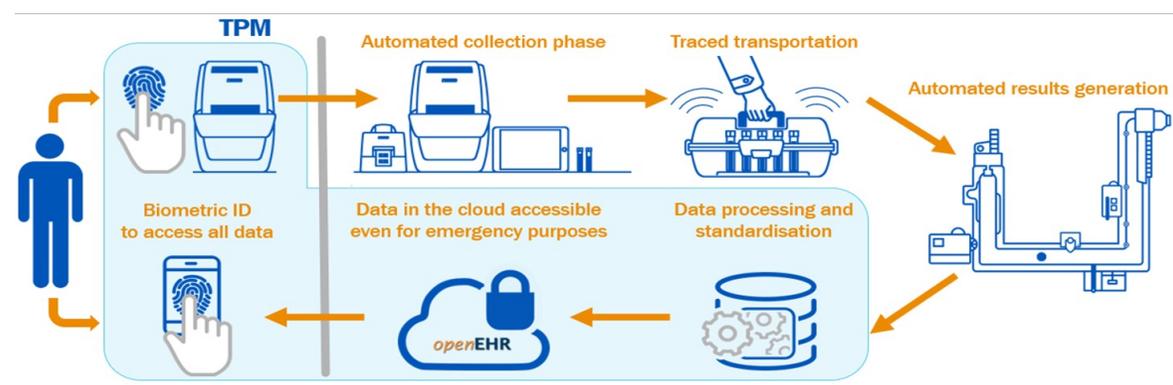


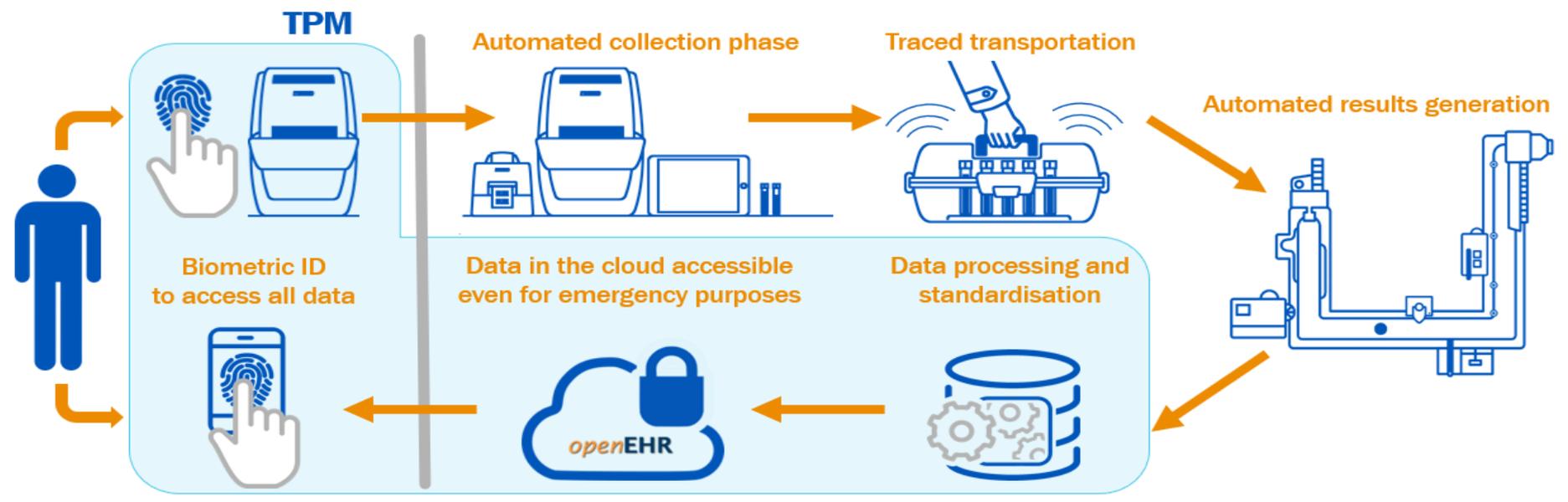
**Identificazione**  
Essere certi dell'identità del paziente

**Ricezione**  
Avere accesso ai dati per i quali si è prestato il consenso

**Immagazzinamento**  
Registrare i dati in un formato aperto

**Condivisione**  
Consentire l'accesso ai dati ai clinici di riferimento



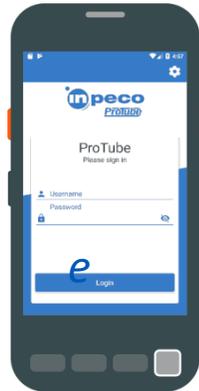


# LA TECNOLOGIA

Componenti HW/SW

Hardware\*

Dispositivo Portatile



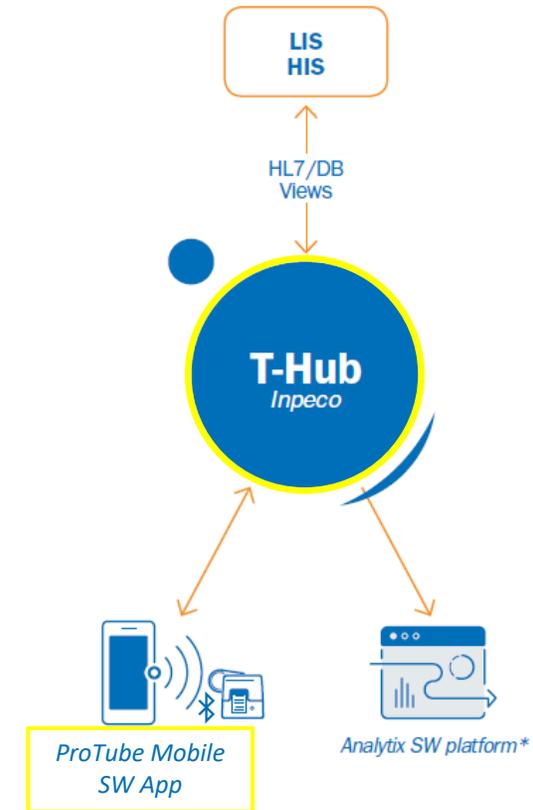
Stampante Bluetooth



Software

T-Hub

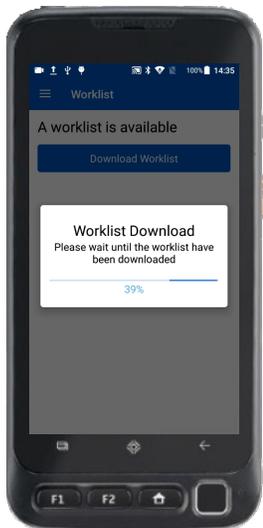
ProTube Mobile  
Applicazione  
Software



\*Non è prodotto da Inpeco.  
Inpeco distribuisce solamente questo dispositivo

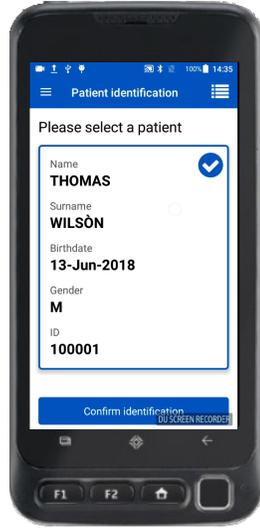
# LA TECNOLOGIA DISPONIBILE

Flusso di lavoro dell'applicazione software disponibile nei device esistenti



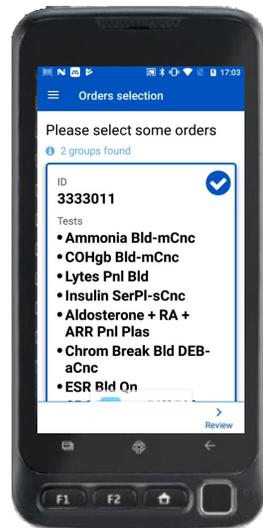
01

Download della lista dei pazienti



02

Identificazione del paziente



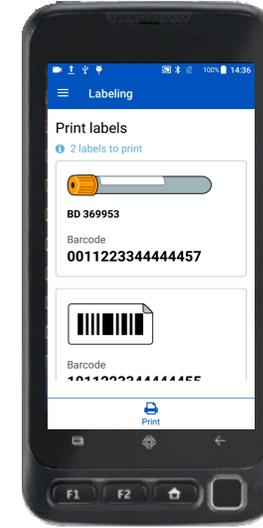
03

Selezione di uno o più ordini



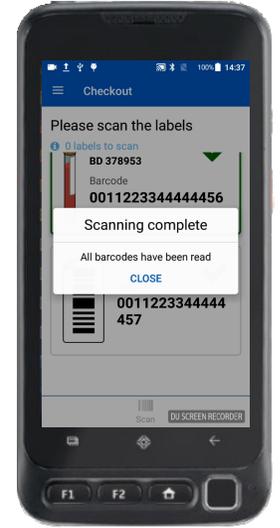
04

Revisione degli ordini



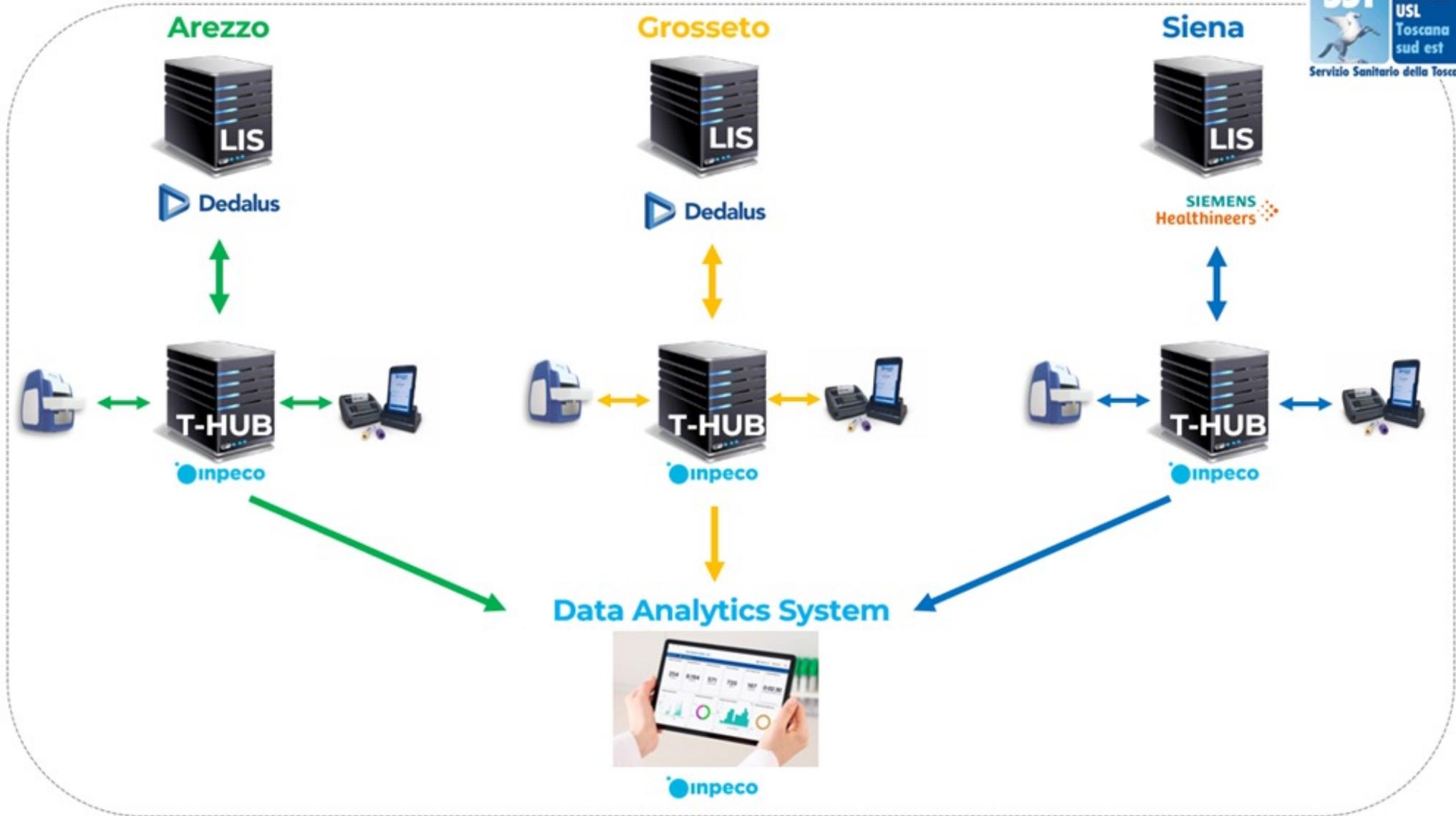
05

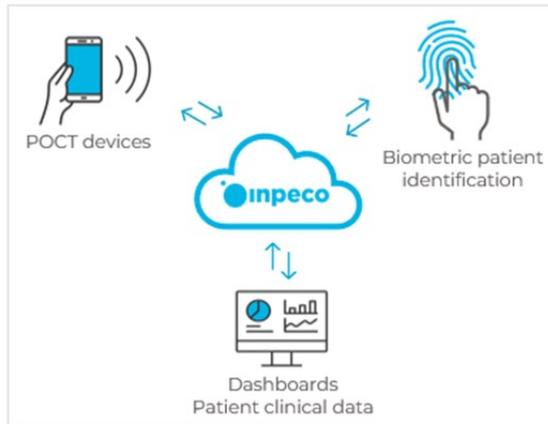
Etichettatura



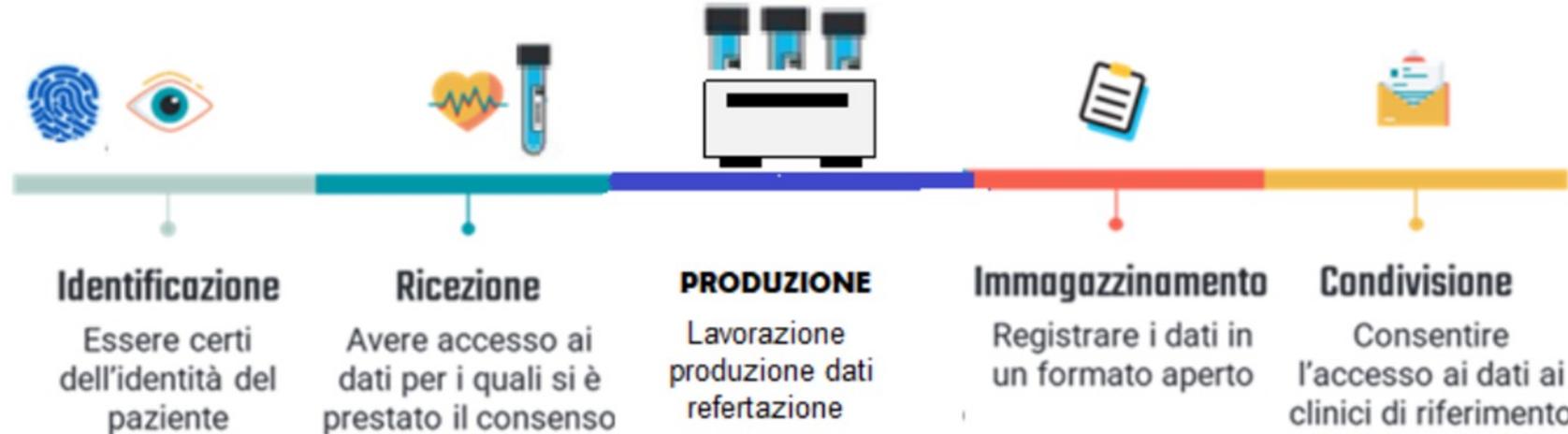
06

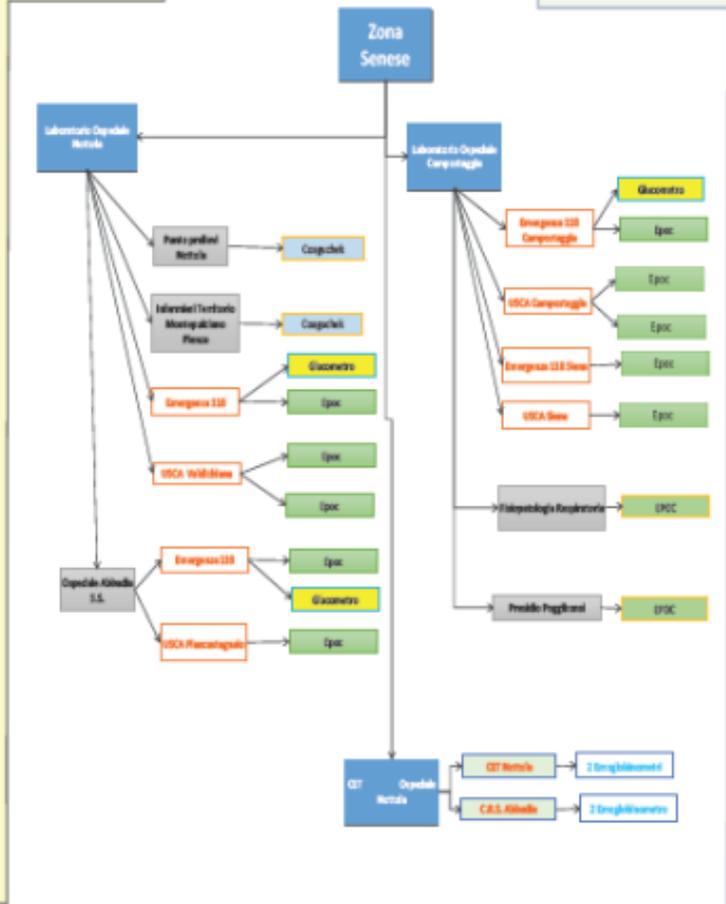
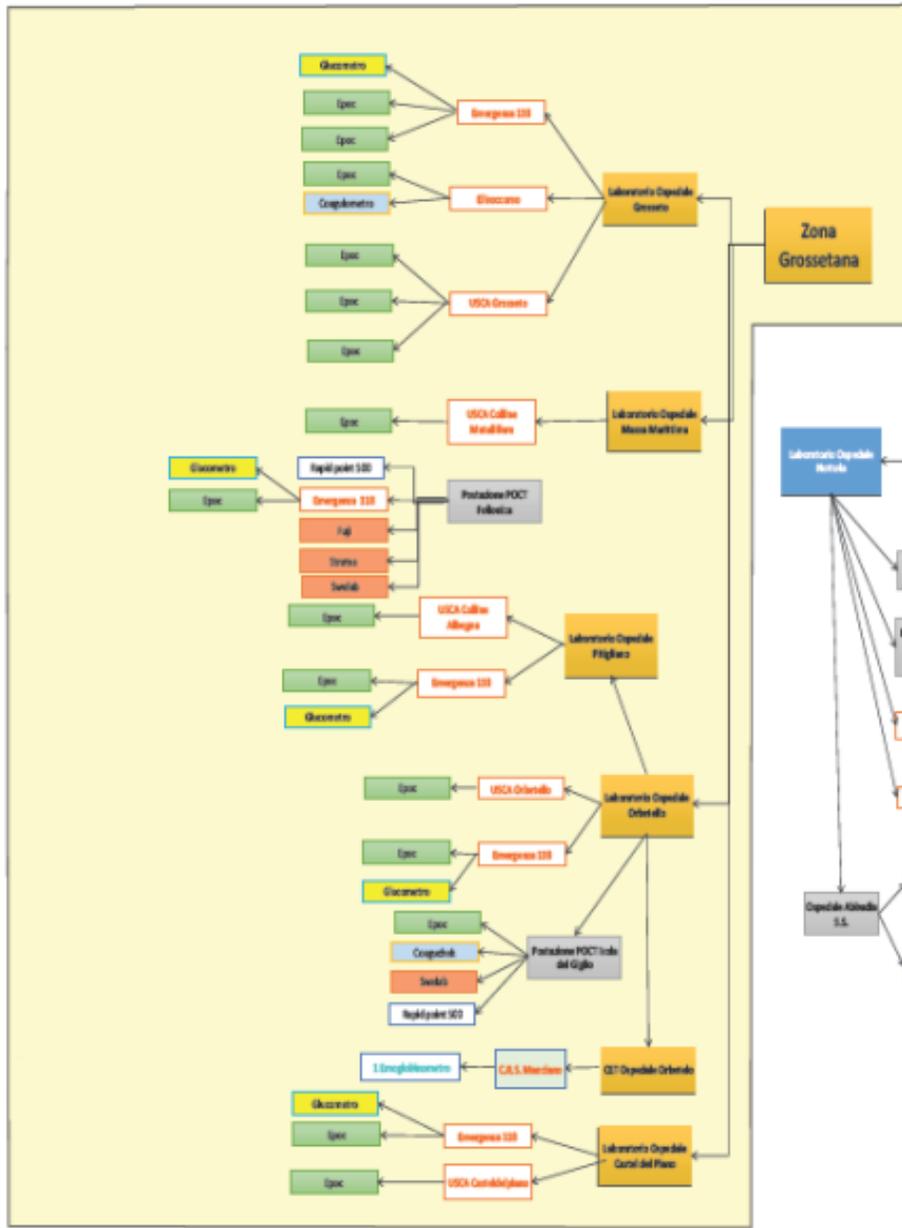
Check-out del campione





- Numero accodamento
- Promemoria di pagamento
- Credenziali ritiro referti







ASTERCLOUD  
RT

**COAD**  
CENTRALE OPERATIVA ANALISI DECENTRATE

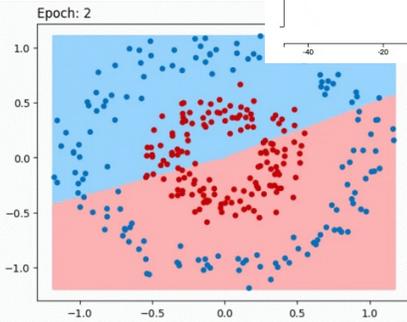
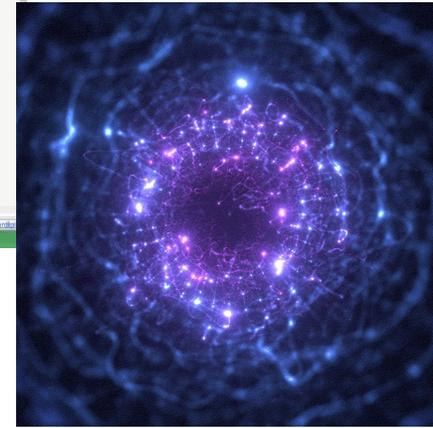
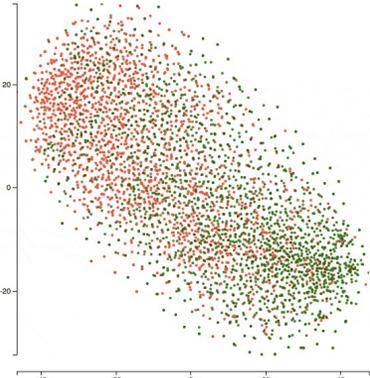
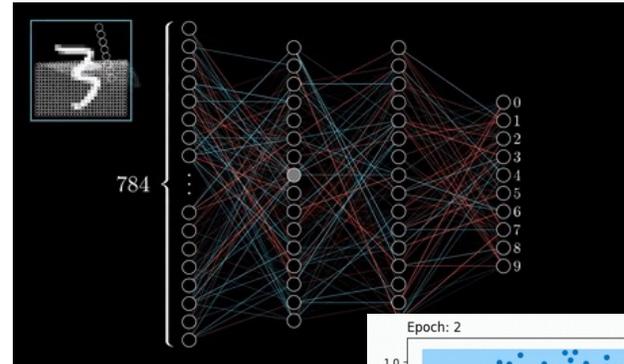
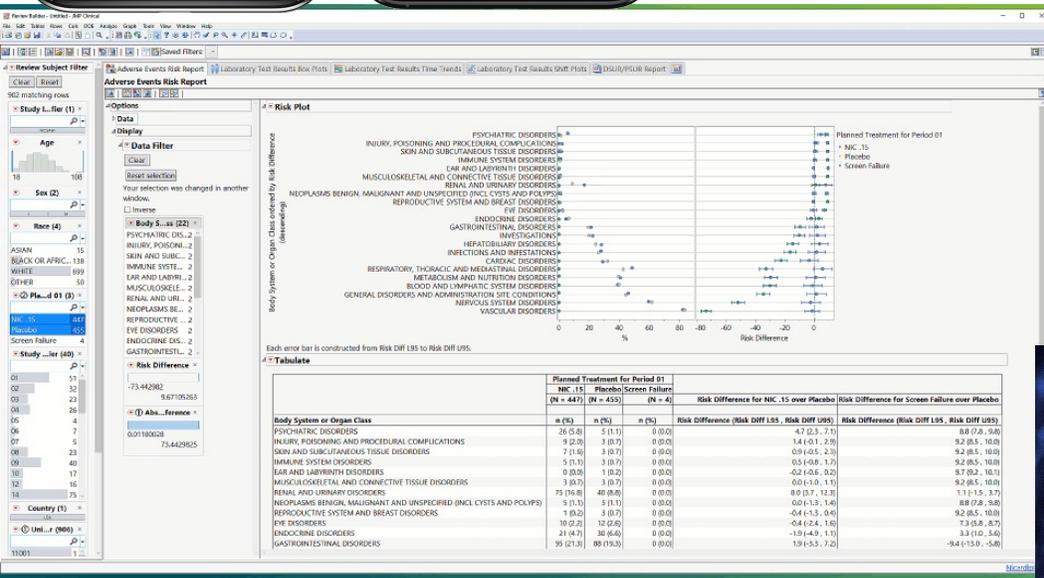
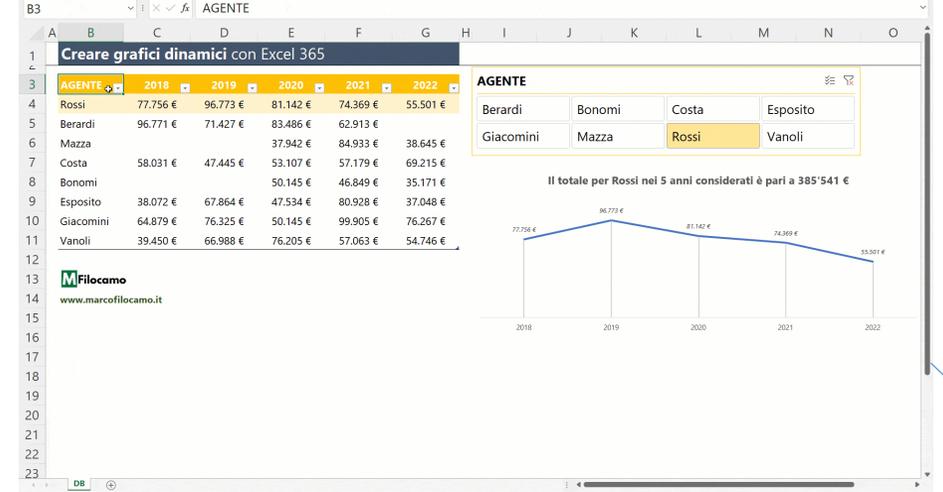
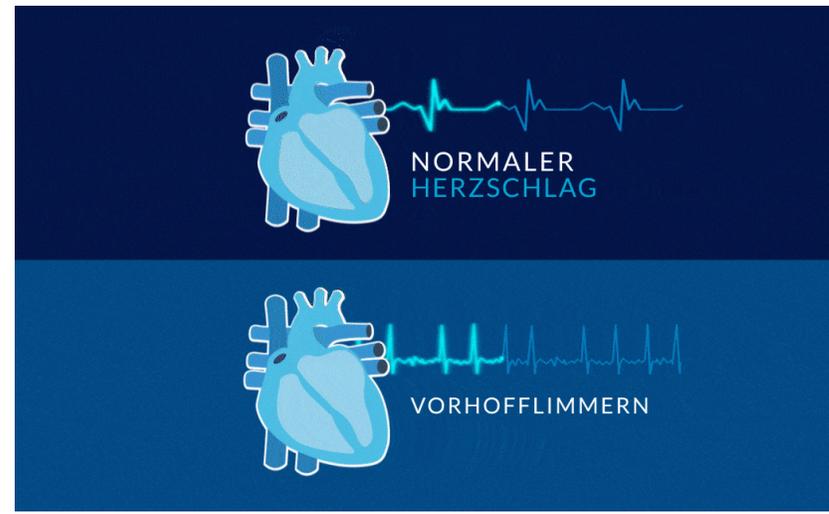
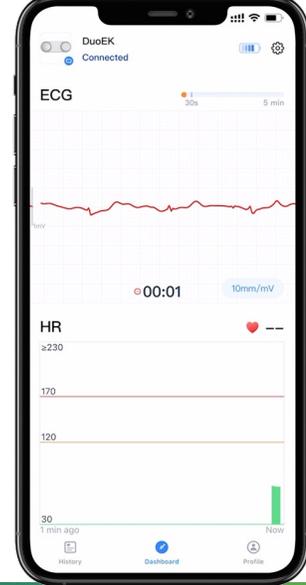
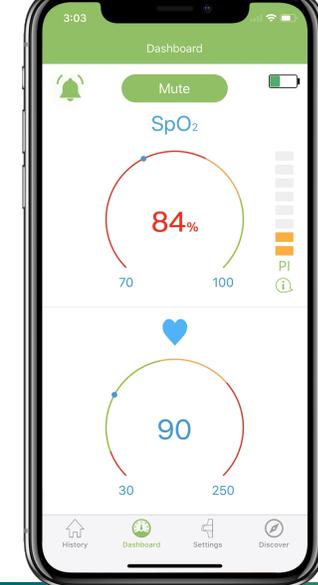


LA MEDICINA DI LABORATORIO NELL'ERA POST PNRR: Assistenza e Ricerca tra innovazione tecnologica e organizzativa



**DASHBOARD**

- CLINICHE
- OPERATIVE
- TECNICHE



La ricchezza delle informazioni e il supporto alla loro elaborazione e interpretazione!

- Efficacia della terapia
- Giorni di cura
- Probabilità di ospedalizzazione
- Mantenimento del compenso metabolico e funzionale
- prevenzione

## Computer-assisted detection of monoclonal components: results from the multicenter study for the evaluation of CASPER (Computer Assisted Serum Protein Electrophoresis Recognizer) algorithm

Agostino Ognibene<sup>1,\*</sup>, Maria S. Graziani<sup>2</sup>, Anna Calдини<sup>1</sup>, Alessandro Terreni<sup>1</sup>, Gabriella Righetti<sup>2</sup>, Maria C. Varagnolo<sup>3</sup>, Ada Campanella<sup>4</sup>, Marinella Martelli<sup>5</sup>, Rita Mancini<sup>6</sup>, Paolo Rizzotti<sup>2</sup>, Mario Plebani<sup>3</sup>, Marco Mori<sup>4</sup>, Giovanni Gaspari<sup>5</sup>, Roberto Motta<sup>6</sup>, Gianni Galli<sup>7</sup>, Massimiliano Fabris<sup>8</sup> and Gianni

tivity for  $\gamma$  zone was 94.6%, for  $\beta$  zone 89.7% and for oligoclonal patterns 92.0%.

**Conclusions:** The sensitivity of the CASPER algorithm does not allow us to recommend its use as a replacement for the visual inspection, but it could be helpful in avoiding accidental misclassifications by the operator. Moreover, the CASPER algorithm may be a use-

Clin Chem Lab Med 2001; 39(9):801–805 © 2001 by Walter de Gruyter · Berlin · New York

## Prediction of the Development of Pregnancy-Induced Hypertensive Disorders in High-Risk Pregnant Women by Artificial Neural Networks

Giorgio Mello<sup>1</sup>, Elena Parretti<sup>1</sup>, Agostino Ognibene<sup>2</sup>, Federico Mecacci<sup>1</sup>, Riccardo Cioni<sup>1</sup>, Gianfranco Scarselli<sup>1</sup> and Gianni Messeri<sup>2</sup>

<sup>1</sup>Istituto di Clinica Ostetrica e Ginecologica, Università di Firenze, Firenze, Italy

<sup>2</sup>Laboratorio di Chimica Clinica, Azienda Ospedaliera Careggi, Firenze, Italy

**Pregnancy-induced hypertensive disorders (PIHD) are common complications of pregnancy and are associated with increased maternal and fetal morbidity. In**

hemoglobin, hematocrit, creatinine, uric acid, urea and total protein values with respect to non-pregnant women; this hypervolemia of pregnancy is thought to be beneficial for both placental blood flow and fetal growth (2, 3).

An inadequate expansion of the maternal plasma volume, with concomitant absence of decrease in these indicators, is known to be associated with pre-eclampsia (PE) and intrauterine fetal growth retardation (IUGR); such conditions frequently coexist and, more importantly, usually precede the clinical appearance of these disorders (4, 5). PE and IUGR are com-

CONTRIBUTI SCIENTIFICI

SCIENTIFIC PAPERS

### Reti neurali e medicina di laboratorio

A. Ognibene, G. Messeri

Laboratorio di Endocrinologia e Farmaco-Tossicologia, Azienda Ospedaliera Careggi, Firenze

#### ABSTRACT

##### Neural network and laboratory medicine

Artificial neural network (NN) are computer programs which can be used to discover complex relations within data sets. Structurally, they are very similar to a biological neural network, such as the human brain. They consist of a set of processing units (nodes) which simulate neurons and are interconnected via a set of synapses. They behave similarly to human brain: they first undergo a training phase and later on solve a problem thanks to the acquired experience. NN

Science

Received 9.1.05 | Revisions Received 12.19.05 | Accepted 1.20.06

## Feasibility of Multiparametric Screening for Glucose Tolerance

Agostino Ognibene,<sup>1</sup> Edoardo Mannucci,<sup>2</sup> Marco Brogi,<sup>1</sup> Iolanda Sposato,<sup>1</sup> Alessandro Terreni,<sup>1</sup> Francesco Cremasco,<sup>2</sup> Vieri Boddi,<sup>3</sup> Gianni Messeri,<sup>1</sup> Carlo Maria Rotella<sup>2</sup>

<sup>(1)</sup>Central Laboratory of Clinical Biochemistry, Careggi Hospital, <sup>(2)</sup>Section of Metabolic Diseases and Diabetology, Department of Clinical Pathophysiology, <sup>(3)</sup>General Pathology Institute, University of Florence, Florence, Italy

DOI: 10.1309/1UVA06R85NJY6043

#### Abstract

The sensitivity of fasting plasma glucose (FPG) for the screening of diabetes mellitus could be inadequate in a high-risk population (eg, obesity). Multiparametric analysis could be used for screening in order to identify those patients who should undergo an oral glucose tolerance test (OGTT).

In 407 obese patients, a set of 17 demographic, clinical, and laboratory

parameters were included in 2 distinct multiparametric analyses using either multivariate logistic regression (MLR) or artificial neural network (aNN). Baseline data were used to predict OGTT-derived diagnosis of diabetes. Sensitivity and specificity of MLR and aNN were compared to those of FPG, with the threshold of 7 mmol/L.

A result of FPG > 7 mmol/L showed sensitivity of 66%. An analysis of MLR when

compared to OGTT-derived diagnosis showed a sensitivity of 89%, and specificity of 97%. Sensitivity and specificity of aNN were 92% and 74%, respectively; among patients who were false positive at aNN, 78% were affected either by impaired glucose tolerance (IGT) and impaired fasting glucose; and 32% of the test patients (versus 1.2% of controls) developed diabetes within 2 years.

## Setting clinici

- MMG
- CARDIOLOGIA
- DIABETOLOGIA
- ONCOLOGIA
- NEFROLOGIA
- PNEUMOLOGIA



## Risorse necessarie

Dispositivi Fissi e mobili	Acquisiti a Siena i fissi (gara scaduta), possibile acquisizione su gara corelab.
Applicativo gestione integrata (LIS, DAS, HIS, Aster cloud etc,)	Predisporre integrazione prevista nel service dei dispositivi per i prelievi
Stazioni di gestione COAD dei sistemi da remoto (circa 15)	Da acquisire secondo le finalità e la complessità.



## Indicatori

- Consumi e Appropriatelyzza
- Non conformità (errori nelle varie fasi del processo)
- Tracciabilità (monitoraggio dei tempi)
- Telecooperazioni sanitarie incrementali anno
- N° di consultazione di demo formative (accessi)
- N° operatori profilati

