



e-tools and social networks for epidemiology

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A Global Solution for online management of clinical trials & epidemiology

**Designer Project** C.T.M.S. Module **Metrics eCalendar eCRF** Randomization ePRO WEB (SMS, emails...) IMP mngt. (offline-online) **Data** etc ... Management

... since 2003

SaaS / Licence – 21 CFR Part 11 compliance



### **PRO – Patient Reported Outcome**

 Patient questionnaires to be filled independantly from the investigator

#### Why use ePRO?

- Increased data quality (i.e. primary study criteria..)
- Real-time data collection → transparency
- Allow subjects additional privacy
- Minimize risk of falsifying data
- Higher compliance rates

• ...





#### Paper

- Patient ID ?
- Quality of data, compliance ?
- Logistics ?
- Double data entry process ?
- Flexibility ?



#### **PDA**

- Equipment costs ?
- Logistics ?
- Maintenance ?
- Flexibility ?

### Why ePRO \*WEB\*?



Subjects complete eQuestionnaires via direct entry on a web site.

- No hardware, no hardware malfunction
- No maintenance (battery, synchronization...)
- Dramatic cost reduction
- Can be associated with an eCRF: data available to sponsor in one database
- Patient uses his own device/computer: ease of use











#### Study on back pain

- Inclusion visit
- Pain evaluation every 15 days (ePRO)
- Additional questionnaires at 3, 6 and 12 months (Quality of Life, Disability, Mood...) (ePRO)

# **Security and authentification**



Ontact information saved on a secure server with restricted access rights

Patients / subjects authenticate using a PIN code received by email or SMS





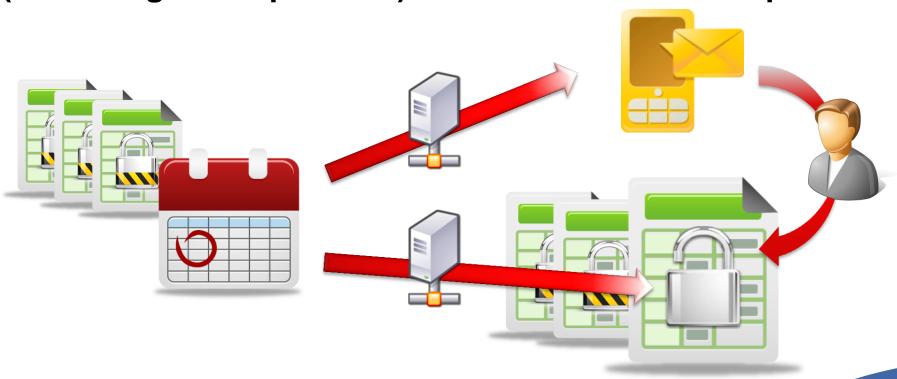


### **Security and authentification**

Enhanced compliance with protocol timeline



PIN codes are only valid during a pre-defined time window (according to the protocol) and renewed for each questionnaire

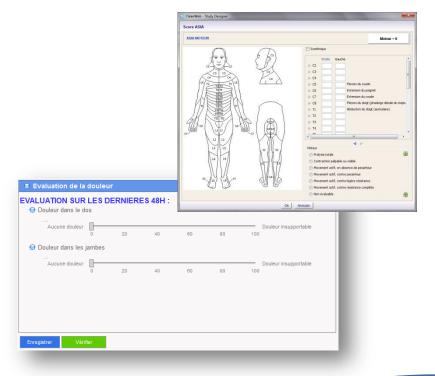




### **Enhanced data Quality**

- ✓ Fully time stamped data entry
- ✓ Full online audit trail
- ✓ Edit checks, dynamic behaviors
- ✓ Advanced graphic data entry fields
- ✓ Ease of use for patients / subjects



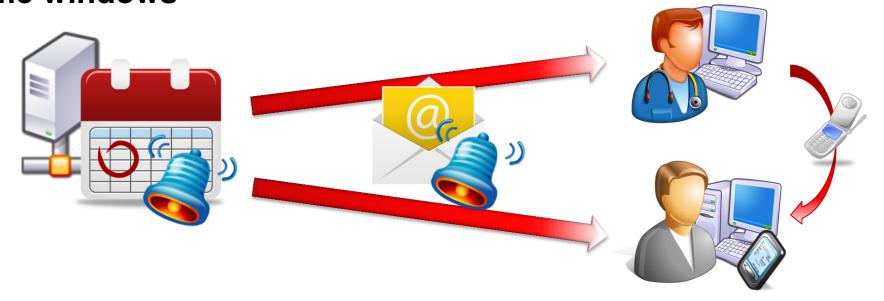


#### **Automated reminders**

Patients' / Subjects' compliance induction



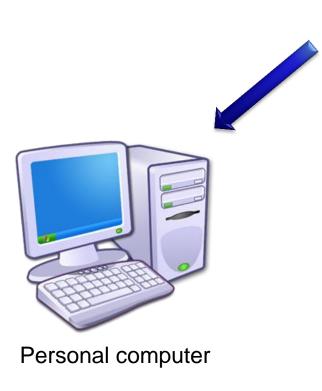
Automated reminders (SMS, emails ...) can be configured at specified time points before, during or ... after data entry time windows



### **Versatility of entry means**

"Responsive design" featured







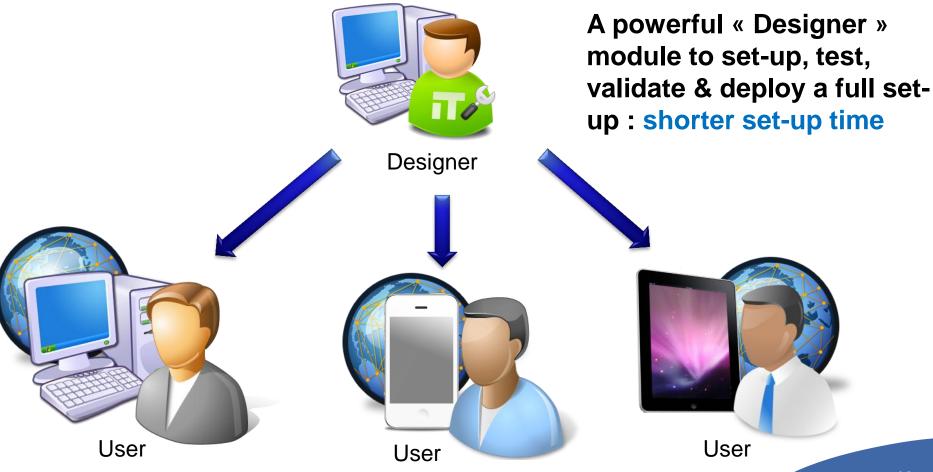


**Tablet PC** 

### Flexibility – adaptability

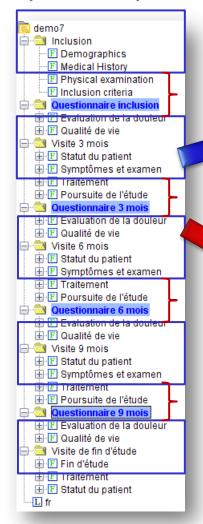
Upgrades available immediately: a 1 click process

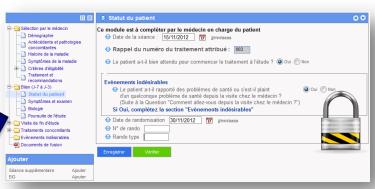




#### **Full integration with eCRF**

Optimized processes – no "mapping" issues













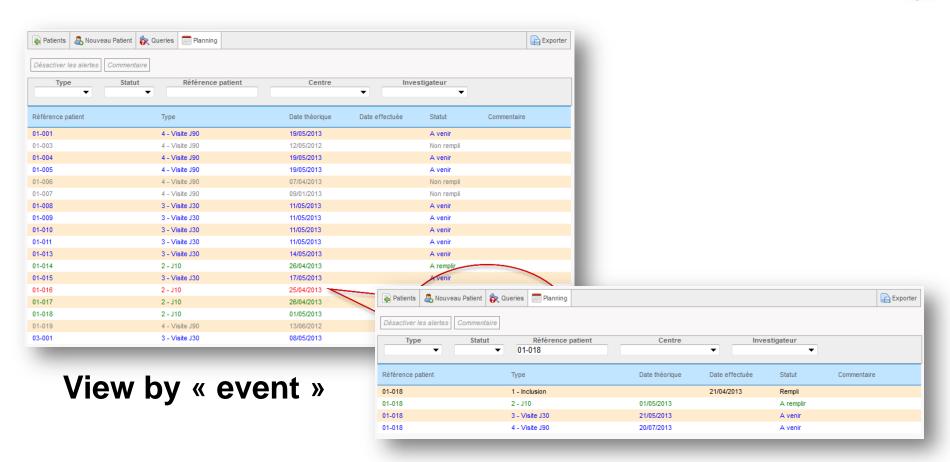




# telemedicine technologies

### Powerful real time monitoring boards

Optimize project team resources, automated reports



View by patient

#### To summarize ...

- Ease of use by patients & project teams
- Increased data quality (authentication, time stamp, enhanced date entry I/F ...)
- Additional privacy for patients / subjects
- Powerful compliance induction features (automated reminders...)
- Dramatic cost savings (no hardware, no maintenance, no logistics...)
- Flexibility / adaptability (long term studies ...)
- Adapted for large populations
- Efficient real time monitoring & reporting tools
- Point of concern :
  - Internet connection required,
  - Population bias ?







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### Thank you for your attention!

