# Requirements engineering

→ Literature review

→ Meeting with

- stakeholders: physicians, pharmacy, nutrition, laboratory, transfusion medicine. imaging, respiratory therapy
- Pilot testing
- Workflow observation (physicians, nurses, healthcare professionals, clerks)
- Order sets design
- Change management **strategy** ("marketing", communication)

### **Technical Preparation**

- Equipment preparation (keyboards, mouses, card readers, virtual desktop infrastructure, dashboard monitors)
- Configuring accesses
- → Integration with ChartMaxx (Clinical data repository)

# **Training**

E-learning modules and ordering scenario simulations

Pediatric unit **CPOE Go-live** 

# Implementation in other units

Surgery and trauma, multispecialty units, long term care

2018 Early-Mid 2019 September 2019

October 2019

November 2019

**Late 2020** 

## Workflow analysis (Supplementary Table 2)

Pre-implementation May 2019 (3 days) | Post-implementation November 2019 (3 days)

- Non-participant (direct) observation (physician, nurse, clerk)
- Discussions with stakeholders (pharmacist, nurse manager, physicians, implementation lead)

# System usability

(Liang et al., 2021 [27]) July 2019

Vulnerability analysis with test scenarios

## Description of the CPOE and project (See Results)

- Analysis of documents
- Discussions with stakeholders
- Active participation to the implementation project (pharmacy informatics, technical support)

### Error Reporting (Tables 1 – 4)

Analysis of medication error reports in the pediatric unit from 2018 - 2020

## SAFER Guide Self-Assessment (Supplementary Table 1)

Questionnaire completed 2 years after Go-live to ensure the assessment of a mature system

# Pharmacist Interventions Reporting (Liang et al., 2021 [27])

Pre-implementation August 2019 (5 days) | Post-implementation August 2020 (5 days)

- Documentation of medication errors and other interventions captured by pharmacists
- Audit of manuscript and electronic medication orders