From Activity Analysis to an User Interface Navigation Structure for an Electronic Patient Record (EPR)

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Outline

- Introduction
- Objectives
- Methods
  - Activity Analysis
  - Workflow Modelling
  - Implementation of the Navigation Structure
- Results
  - Activity Analysis
  - Workflow Modelling
  - Implementation of the Navigation Structure
- Discussion & Conclusion
- References

Introduction

At the Academic Medical Center (University Hospital in Amsterdam) a new EPR will be introduced

Our project will give proposals for the new user interface design

We looked into the workflow of the department of gynaecology

Clinicians must be involved in the system development for best acceptance

Objectives

What patient data and in what context do physicians search for information and what resources are used therefore ?

Methods:
1. Activity Analysis

- List all activities and its
  - Roles (who is acting)
  - Reason (why the action is conducted)
  - Information (what is transferred)
- Modelling by
  - Activity
  - Input
  - Output
  - Resource/ Method
  - Control/ Constraint

Methods:
2. Workflow Modelling

Define in chronological order the medical information reviewing process into four parts:

- patient summary / patient history
- actual patient status
- examinations
- daily controlled data

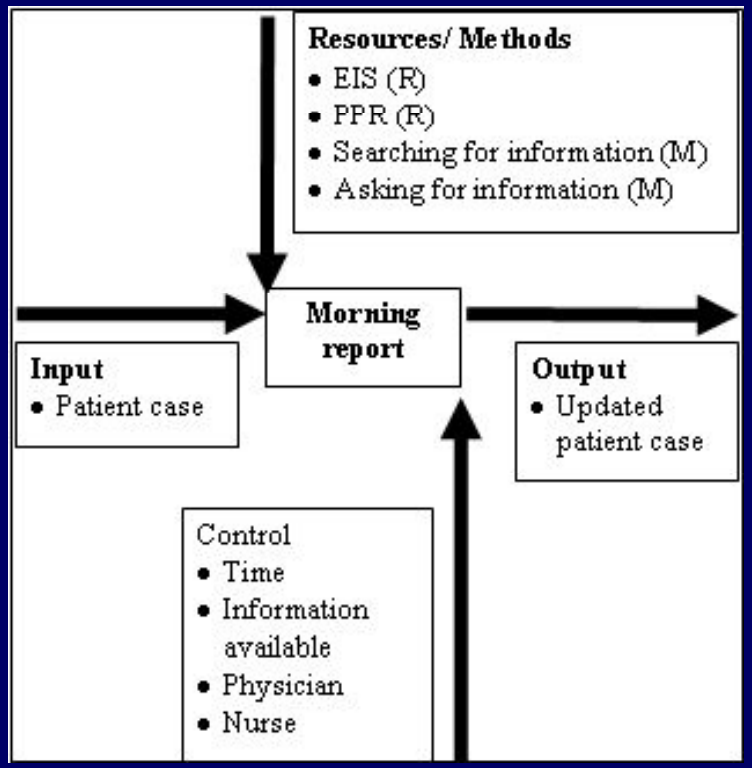
Methods:
3. Implementation of the Navigation Structure

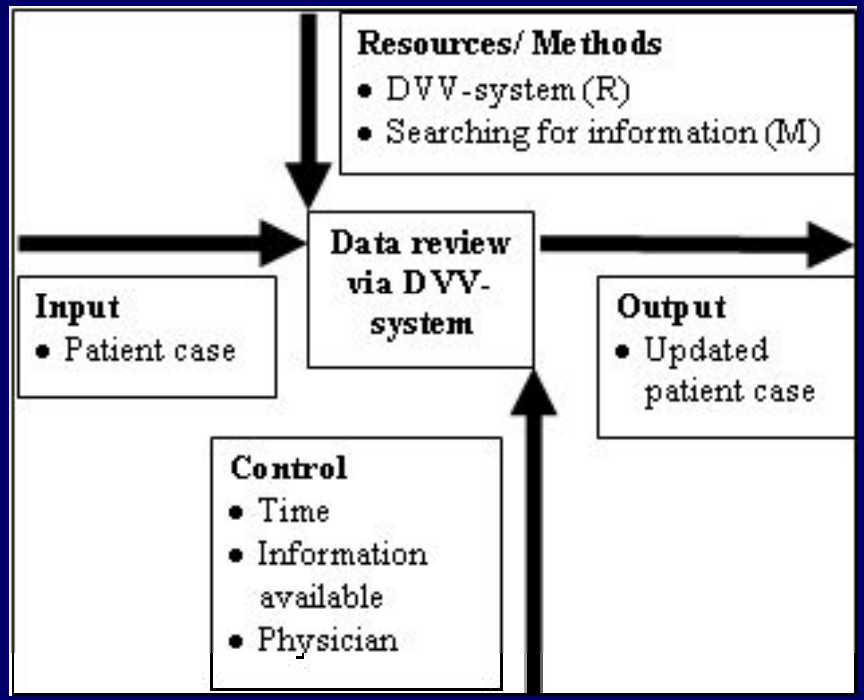
Workflow model leads to navigation structure

Results of Workflow modelling was mapped onto the EPR-prototype

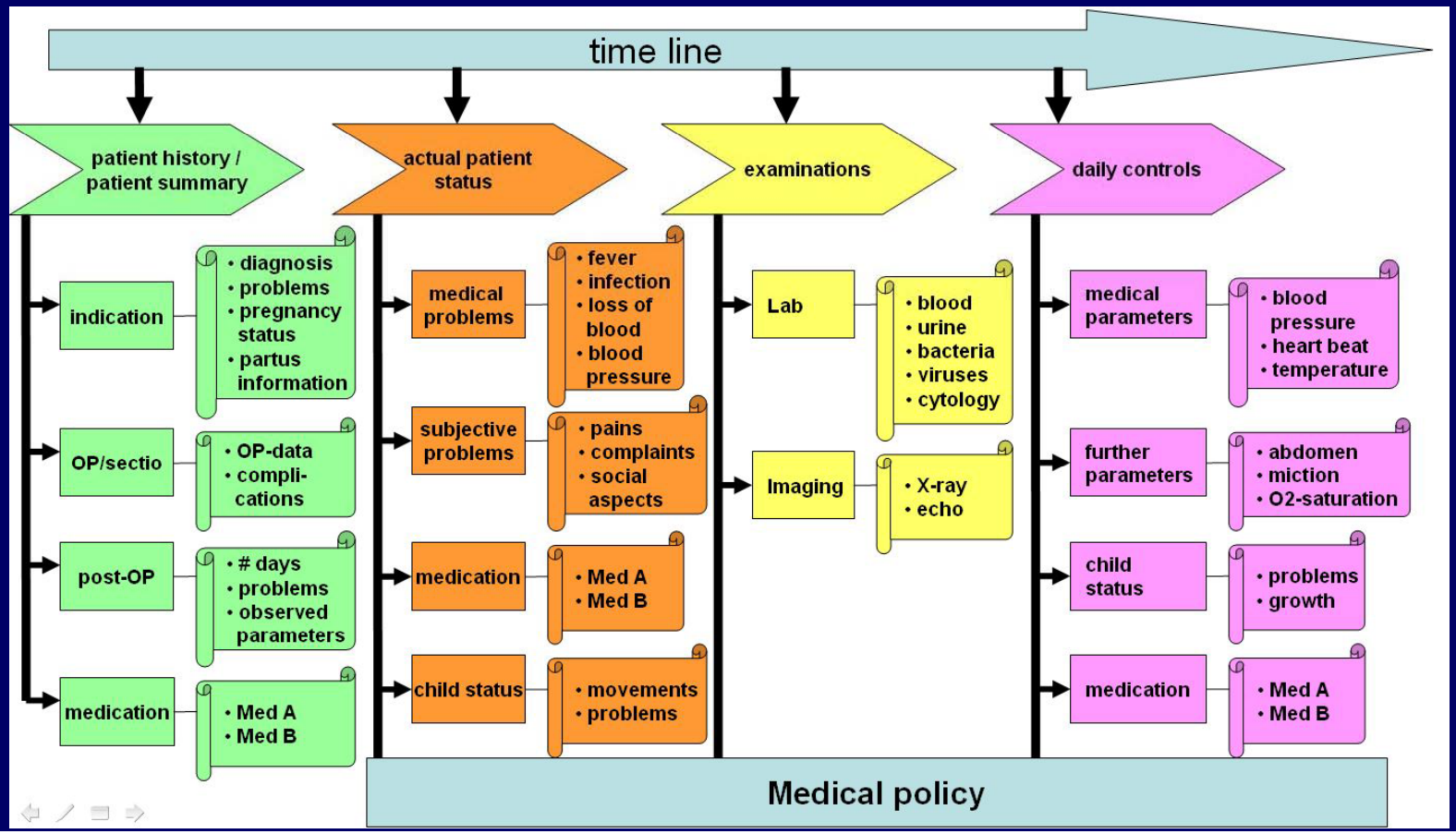
Navigation structure was adapted to the new workflow results obtained from the models

Results:
1. Activity Analysis





Results:
2. Workflow Modelling

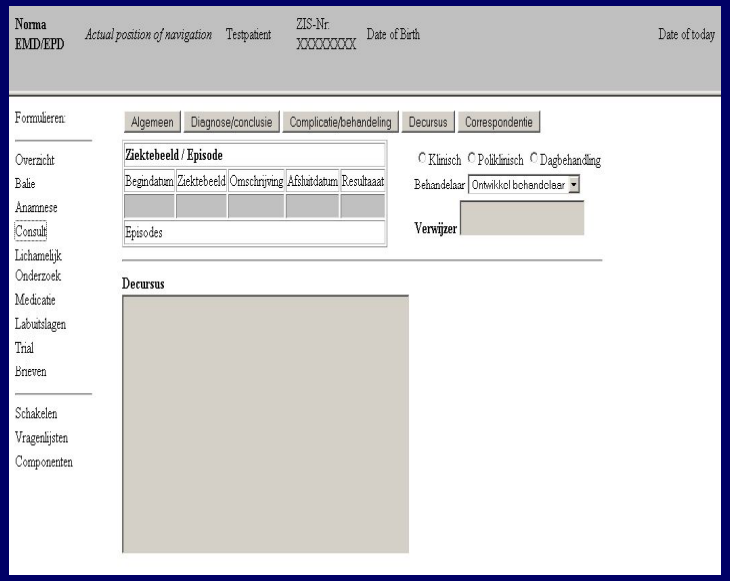


Results:
3. Implementation of the Navigation Structure

Old:

One text field

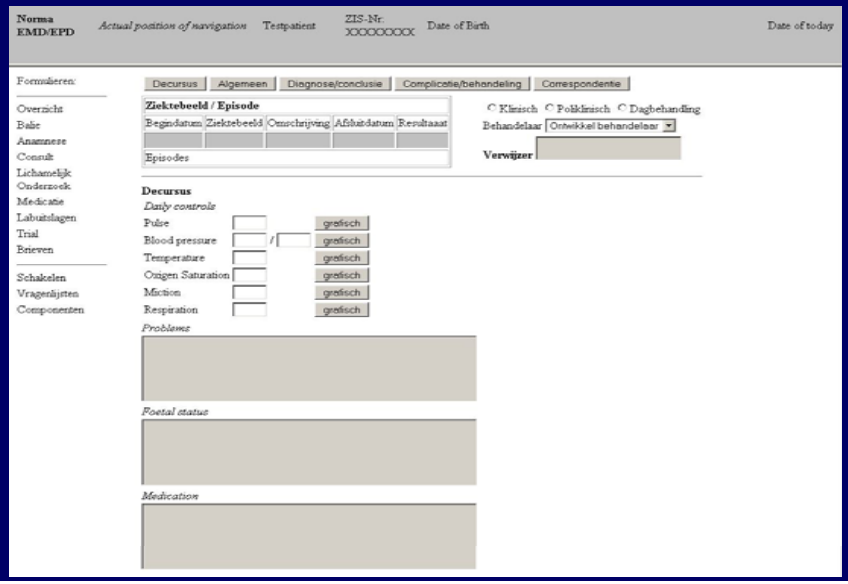
Bad overview



New:

Process driven fields

Better info searching



Discussion & Conclusion

- Some EMR-system have low acceptance
  - Tailored system by integration of the end-user
  - **Acceptance ↑**
- Perspective of data input is common in EMR
  - Focus on data retrieval / data review behaviour
  - **Better modeling** of the real scenario
- Media cracks through the use of conventional systems mixed with electronical systems
  - Investigation of the workflow streamline to find an efficient supporting navigation structure
  - **Patient safety ↑**

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