Which Parts of a Clinical Process EPR Needs Special Configuration

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EPR: Generic vs. Dynamic

Research Questions

- Which parts of an EPR can be generic configured and initially form a stable standard solution to be used by all clinicians?

- Which parts of an EPR can we predict are subject to initial as well as on-going re-configuration in order to meet the needs from diverse medical specialties?

Research project: www.**Effects-DrivenIT**.dk

Research method

- *IT-strategy*: Experimental, Participatory and Effects-Driven

- *Implementation*: Clinical Process EPR configured for stroke unit (acute apoplexy) at Roskilde Hospital
  - EPR configured workshops with clinicians
  - EPR in use for 24 hours a day for one week for all patients
  - All Clinicians used EPR (no paper records used)

- *Hardware*: Portable and stationary PC, PDA and large projected screens

- *Analysis*: All screens analyzed with regard to systematically recorded changes during configuration and use
  - In total 243 screens – 222 changes.

Preliminary Indications

- Clinical Process EPR can successfully be configured to a specific medical specialty

- The majority of screens are remarkably stable (no need for reconfigurations)

- Relatively few screens need on-going experimentation and several re-configurations

- These screens reflect new ways of working due to EPR - decoding, information sharing, coordination support

- Some parts of this configuration may be reduced over time since they address new but also *general* ways of working with EPR

- Only few specific screens seem necessary per medical specialty – and they can efficiently be configured through an experimental and participatory approach

Top-level change pattern

- Views/Forms ratio 4:1

- Change trigger: innovation and content requirements feedback from views

- Large group of first hitters - 76%

- 59 screens required experimenting at some degree

Total screens	Screen changes		
	None (0)	Few & initial (1-2)	Several & sustained (>2)
243	184	27	32
100%	76%	11%	13%

Table 1: Changes made to the screens during the entire project.

Detail: Several & sustained (>2) Category

- *Doctors* - few ekstra needs for registration, good at designing views for themselves.

- *Nurses* - difficulty stating their data requirements and informaiton usage.

- *Multidiciplinary* - supporting collaboration and feedback to content requirements contributed.

	Professional discipline		
	doctor	nurse	multi
Form	5	14	3
View	0	3	7

Table 2: Screens in the Several & sustained category, distributed among the professional disciplines or shared.

Detail: Several & sustained (>2) Category

- *Specific* – Not as many as expected, however many changes

- *General* – investment benefitting the next implementations

	Specific		General	
	Screens	Change	Screens	Change
Form	7	39	15	79
View	5	38	5	28

Table 3: Screens in the Several & sustained category, distributed among the Specific for the Clinical Speciality (Apoplexy) or the General Clinically category.

IT - Patientsikkerheds perspektivet

- Problem at kliniske eksperimenter kræver meget af implementeringen for ikke at kompromitere patientsikkerheden
  - Relative store initial investeringer
  - Høje kvalitetskrav
  - Driftsikkerhed
- Krav til IT-systemerne for at kunne følge med efterhånden som innovative anvendelser tager form.
  - Hvad skal være dynamisk?
- Projektorganisering
  - Filosofi i design processen
  - Prioritering i projektet set i forhold til den prioritering der ses i sundhedsvæsnet -> effektivitet/kvalitet