Integrated EHR's
in Belgian hospitals

And what about Antwerp?

INTEGRATED

ELECTRONIC HEALTH RECORD

Electronic Health Record

- Patientrelated data stored in a database
- Data is required for
  - Diagnosis
  - Treatment/Therapy
  - Proof of quality of care
  - Logistics
  - Finance
  - Research
  - Education
  - …
- Mostly unstructured data
- Mostly created for a specific pathology, few platforms for general purposes
- Set of different systems or one single platform

The double meaning of "Integrated"

- **All relevant data available for all people that require access to it**
  - IC & therapeutic relationship are required
  - Something to say about psychiatric, genetics and fertility records
  - Structured or unstructured, not defined today but tendancy to structured
  - Focus on unique data elements (register once, use multiple times)

- **Supports hospitalwide workflows and patient journeys**
  - Engine for the careteam and multidisciplinary approach
  - Ensures end-to-end aligned intramuros careprovisioning, careplans and carepathways

The enduser aversion to the EHR

Feeling intense empathy for an unknown colleague after finding this punched out monitor in the Doctor's Lounge #EHR #Epic #EpicFail #burnout #medtwitter

Sadly, that is how many users feel...helpless & frustrated. The bones of the #EHR must be good, the training, education, and support ever better. #hcldr

🎯People
🎯Process
🎯Workflow
🎯Tech

👆Must all work together or the system **fails** to deliver. #HIMSS19 cc: @wareFLO

for my friends who work w an #EHR everyday. this is what i keep hearing from u. 😬 #hcldr twitter.com/edvaldez8888/s...

BELGIUM

THE EHR TRAIN MOVES

SLOWLY

CARE2015

- A program developed by e-trinity in 2010

- Detailed roadmap to bring Belgian hospitals in 5 years time to full integrated EHR, hospitalwide

- Mapped to evolution in neighbouring countries at the time

- CARE2025 would have been better

Belgian Meaningful Use criteria

- Set by Belgian government to push hospitals towards adoption of integrated EHR's

- Goal: have all Belgian hospitals adopt the BMUC phase 1 by 1/07/2020. No timing for subsequent phases

- Criteria with phase 1 goals:
    - Unique patientidentification (80%)
    - Problemlist and medical history (20%)
    - List of allergies and intolerances (30%)
    - Prescription of medication (inpatient only) (30%)
    - Medication interactions (suspended, national database not available)
    - Careplans (5%)
    - Management of appointments (>0)
    - Electronic ordercommunication for radiology, lab and consults (50% for one of the three)
    - Discharge letter (80%)
    - Registration of vitalsigns (50%)
    - Informed consent registration (30%)
    - DNR registration (>0)
    - Resultsserver (80%)
    - Automated communication with ehealth hubs and other services (80%)

Belgian Meaningful Use criteria

- "Nice to have" modules can replace one or more of the actual criteria to be eligible for government funding

- Modules with phase 1 goal if being used:
  - OR planning module (80%)
  - (N)ICU module (80%)
  - ER module (80%)
  - Clinical Decision Support (80%)
  - Prescription of chemotherapy (80%)
  - Functional location of patient (80%)
  - Genetic information (80%)
  - Mobile services (ao. for telemonitoring) (80%)
  - Closed loop medication (80%)

Belgian Meaningful Use criteria

- Too much focus on the collection of single data elements in a database. Not enough focus on integrated part.

- 95% of hospitals realized phase 1 already in 2018

- In 2018, practically all hospitals were even early adopter
  - Bar was raised significantly higher for 2019

Belgian integrated EHR landscape

- **Nexuzhealth**
  - For years developed and rolled out by UZ Leuven. Since 2016 commercialized by NexuzHealth (Cegeka + UZL)
  - 50% of Flemish hospitals use it in some way (UZ Leuven remains only university hospital)

- **Xperthis**
  - Different systems
  - 95% of the Walloon hospitals use one the Xperthis platforms in some way

- **Chipsoft**
  - Marketleader in the Netherlands
  - Two full operational hospitals in Belgium (ZOL and AZ Delta)
  - Some hospitals with partial installation (ao. AZ Klina, AZ Dimpna)

- **Primuz**
  - Developed and commercialized by UZ Brussel. CTG is implementation partner.
  - 12 hospitals on roadmap. Besides UZ Brussel, only ADT active in AZ Sint Elisabeth

- **Cerner**
  - Global Marketleader
  - 4 hospitals on roadmap (UZA, AZ Sint Lucas, AZ Klina and AZ Monica)

- **Epic**
  - One hospital is implementing it, CHU Saint Luc

Other (partial) EHR's on the market
- *Infohos, Orbis, M2M, Clinicom*
- *AZ Maria Middelares's inhouse developed EHR (also active in Waregem and Tielt)*
are bound to be replaced by one of the above at some point

THE ANTWERP SITUATION

The vision

- One integrated EHR for all Antwerp hospitals

- One database, one datamodel, one record

- Respect for operational individuality of each hospital

- Accessible for and integrated in firstline environment

- Interactive engagement role for the patient

The challenges
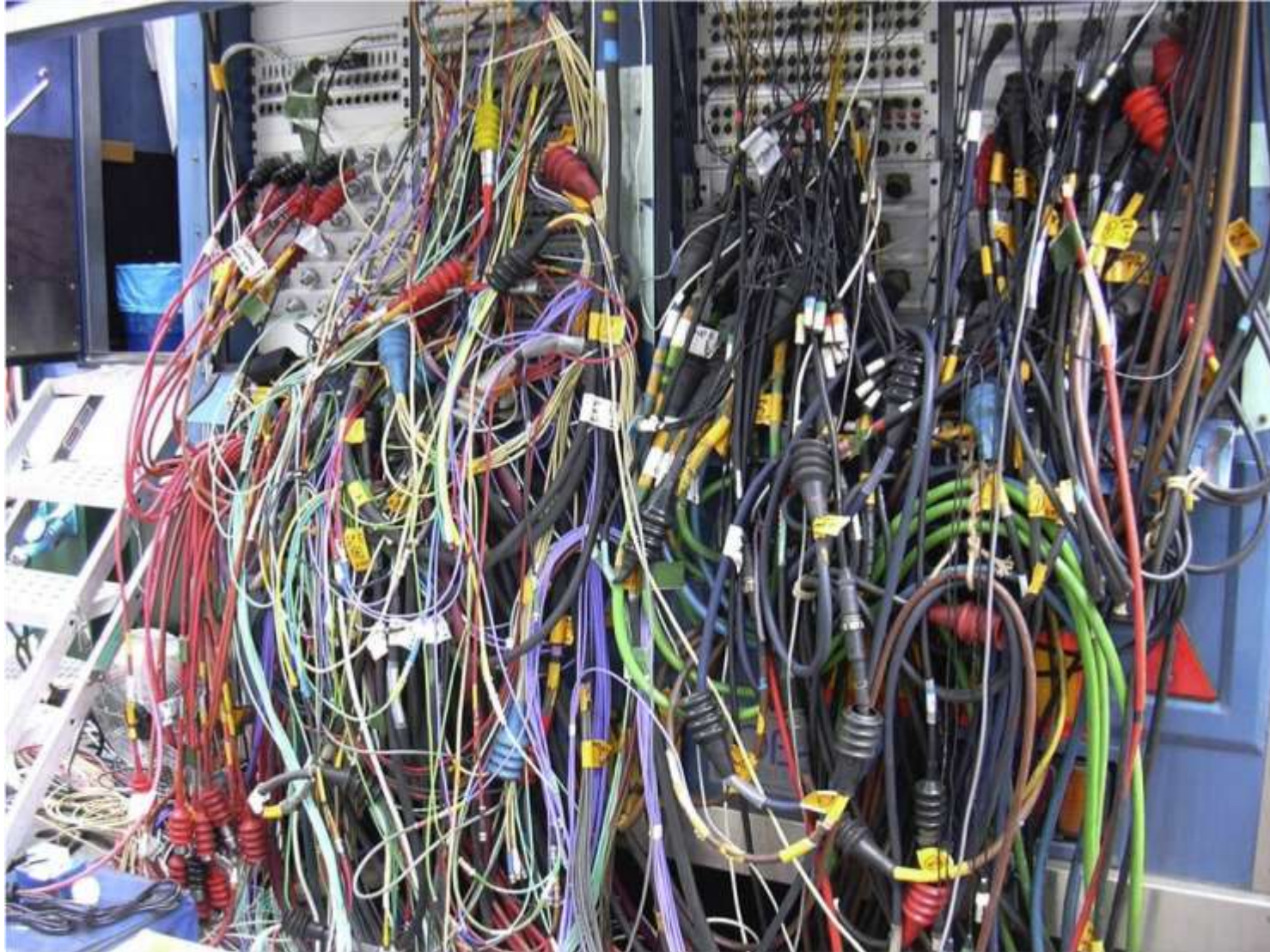
... are thousandfold

UZA's approach

- **Choose a high-end integrated EHR platform**
  - UZA has chosen Cerner Millenium after detailed market analysis and tender process

- **Get the first partnerhospitals on board**
  - AZ Klina and AZ Monica from Helix network committed to join

- **Build together a multihospital integrated EHR**
  - One datamodel, one record, respect for operational individuality

- **Proof that it works**
  - UZA go-live planned for May 2020, AZ Klina and AZ Monica to follow

- **Convince other partners to join**
  - Will be a longterm goal.
  - Intermediate alternatives can already help

Firstline integration

either

- **Access the record through a collaboration portal**
  - Possibility to tighten integration through interfacing

or

- **Join the platform and work directly on the same record**
  - One integrated EHR for all careteams in Antwerp

Patient Engagement

- Patient is no longer a passive participant, a direct object of healthcare

- Our patients want to interact, want to be involved and want to be educated

- Providing a patient engagement platform that covers these needs and allows full engagement
  - Extramuros carepathways with telemonitoring
  - Tailormade interactive education
  - Direct interaction with careteam

WHY NOT A NATIONAL INTEGRATED EHR?

Realistic approach

- National datawarehouse with structured datamodel ≈ non integrated EHR

- Careteams/facilities can consult and update information through trusted interfacing

- Governmental push required to get things moving or regional initiatives to lead by example.

Thank you

Questions?

Discussion via UA app

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