

The art of ART

Functionality for Assisted Reproductive Technology (ART)
using openEHR archetypes in DIPS Arena

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Oslo University Hospital and Norwegian governance of archetypes



Foto: OUS, Internett

Goal – replace homegrown system for ART

InVitro – homegrown Access db for treatment of infertility

- + Specifically tailored for use in ART
- + Easy to implement changes
- + Easy access to data for QA
- Locally developed, risky for maintenance and governance
- Little integration with other systems in the hospital, including PAS and EPR
- Challenges in stability, security and privacy

Add functionality in existing EPR

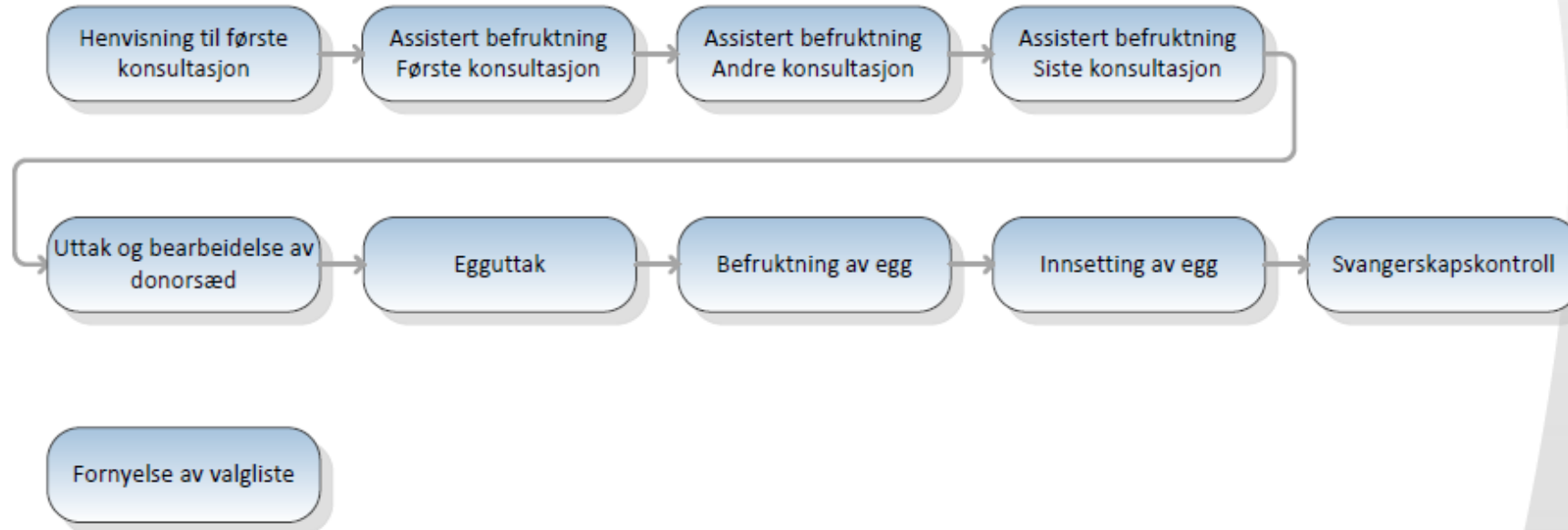
Pros and Cons

- + Integration with EPR/PAS and Lab
- + Governance within hospital and service provider
- + Closing issues related to stability, security and privacy
- + "Use what we have, before buy new"
- Adaptive to local needs?
- Time to develop and make changes?
- Cost?
- Access to data for QA?

Analysing AS-IS

Reproduksjonsmedisinsk avdeling OUS: Prosesser IVF, ASIS

Videre fremdrift:
- Start analyse og presenter
TOGE analyse for gruppen



Then what?

- DIPS AS, Bifrost – Oslo University Hospital (OUS) agreement
- Pay per hour, 1 day per week, 2 DIPS resources
- Increased to 2 days per week
- DIPS made "mock-up" functionality based on existing archetypes and preliminary, home made archetypes
- Agile development, weekly meetings OUS – DIPS
- OUS ART expert made draft archetypes
- DIPS included into the product archetypes in status "draft" and "published" as they were available

Archetype development - I

- OUS used/hired archetype experts nationally and from abroad
- Per May 4th 74 archetypes to be used
 - 24 in status "Draft"
 - 9 in status "In review"
 - 39 in status "Published"
 - 2 in status "Reassess"
- Of the 74:
 - 16 initiated by ART project alone
 - 23 partly initiated by ART as it share needs within the openEHR community
 - 4 local archetypes which will never be on review

Archetype/Template development - II

- First mock-up: 138 archetypes
 - Reduction based on
 - New and broader archetypes
 - Better knowledge of which archetypes existed
 - Got rid of preliminary archetypes
- External help very useful
 - Approx. 100 hours until now
- Templates made by domain expert and project

Status per now and plan

- Tested, given feedback x n in DIPS' environment
- Installed a version in a test environment in OUS
- Awaiting feedback from users in OUS
- Push as many archetypes through review and publish, until 1.June
- Remaining not-published archetypes will have `_dips` or `_ivf` suffix and to be included in next version
- Go-live mid September

Recommendations

- Simple forms and documents can be made locally
- Complicated functionality – leave it to the vendor
 - Form designer not suitable for complicated needs
 - Possible for vendors to compete
 - Why not use Tieto, Cambio, Better, Nedap, FreshEHR, ++ to make a module for DIPS Arena?
- Hybrid approach
 - Customer responsible for archetypes and templates
 - Vendor responsible for UI, implementation
- Knowledge and experience is important and takes time to obtain