

# InfCare for TB, hepatitis and HIV

- **Clinical quality assurance**

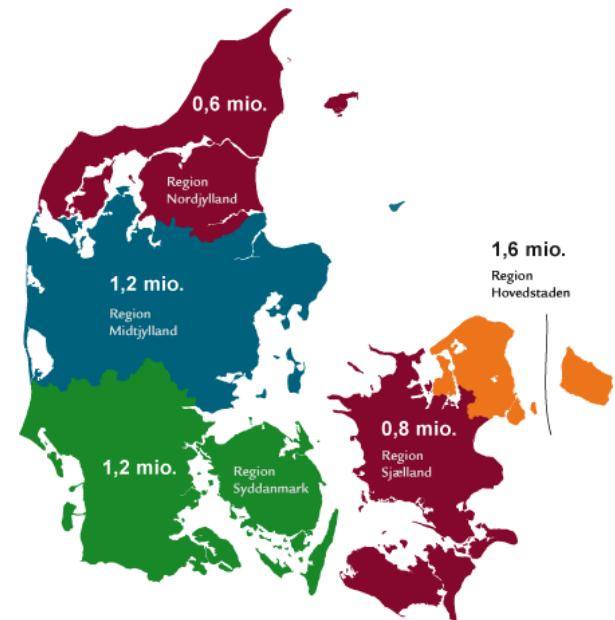
Christian Wejse / Lars Østergaard

Dept. of Infectious Diseases

Aarhus University hospital

# InfCare: Background

- Health Solutions
- Real Q platform
- **InfCare Hiv**
  - National database in Sweden
  - Two regions in Denmark
- **InfCare Hepatitis**
  - National database in Sweden
  - Three regions in Denmark
- **InfCare TB**
  - Implemented in Aarhus April 1, 2013
  - National database for TB in Denmark to be



# InfCare basics



## Data

- Data quality
  - Real time based digital transfer of data
  - Limited manual data entry



**High validity and reduced delay in data availability**

- Integrated data handling and analysis
- Flexibility/modifyable

# InfCare TB

## Patient groups

- Active TB
  - *Clinical course*
- Latent TB
  - *TNF alfa treatment,*
- Contact tracing
  - *Follow-up of contacts to index patients*



# InfCare TB

Select graph

CRP and ESR

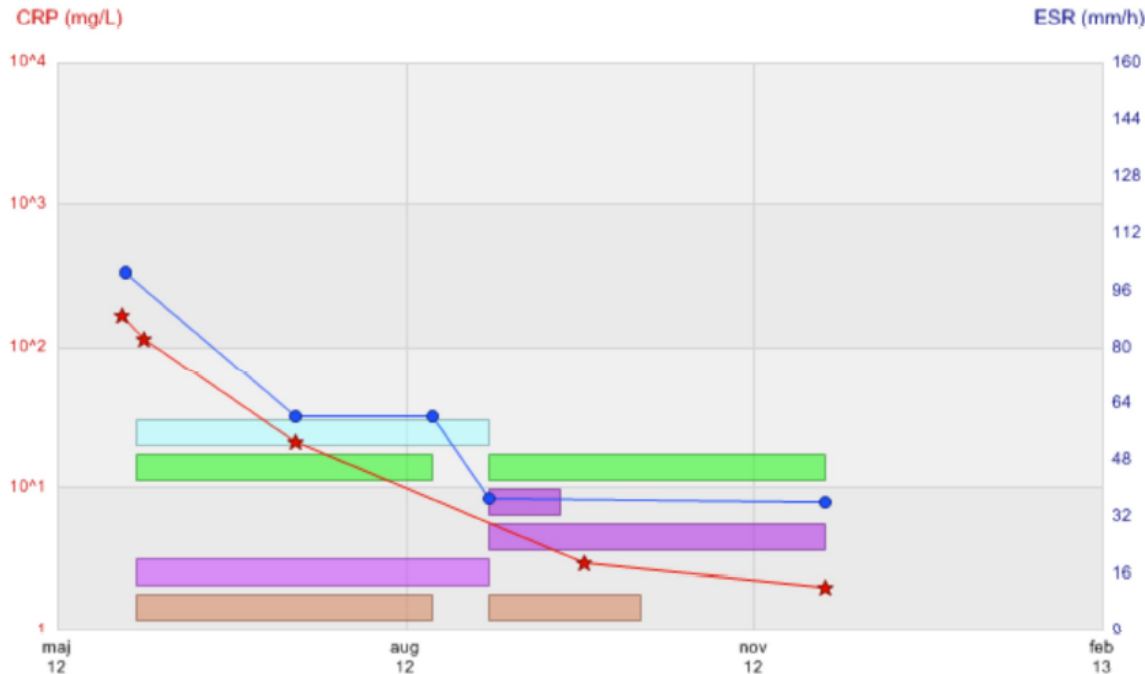
Date

Start year: Auto

End year: Auto

Update

PDF Report



Drugs Series Guidelines

- Rifampicin
- Pyrazinamid
- Rifabutine
- Moxifloxacin
- Isoniazid
- Ethambutol

Chest X-ray

TB microbiology analysis

HIV test:



Biobank:



Contact tracing initiated:



Reported to SSI:



Height (cm):

Weight (kg):

84 (20-11-2012)

BMI (auto):

Positive sputum microscopy:

Latest sputum microscopy:

Positive sputum PCR:

Positive sputum culture:

Positive extra-pulmonary microscopy:

Positive extra-pulmonary PCR:

Positive extra-pulmonary culture:

Extra-pulmonary TB location:

TB resistance

Rifampicin (22-05-2012)

Type of active TB:

Pulmonary

Quantiferon test:

Positive (22-05-2012)

T-Spot test:

HIV Ag/Ab:

Positive (01-02-2010)

CRP (mg/L):

2 (20-11-2012)

ESR (mm):

36 (20-11-2012)

Hemoglobin (mmol/l):

6,9 (16-11-2012)

Select graph

CRP and ESR

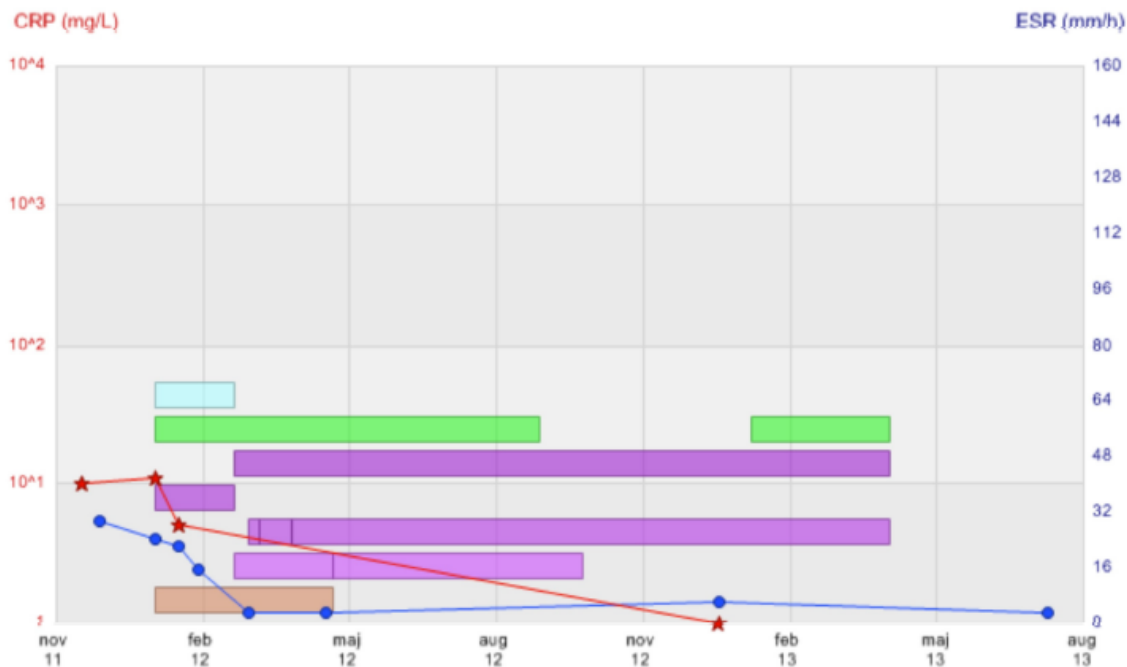
Date

Start year: Auto

End year: Auto

Update

PDF Report



Drugs Series Guidelines

- Rifampicin
- Pyrazinamid
- Moxifloxacin
- Isoniazid
- Cycloserine
- Amikacine
- Ethambutol

✗ Chest X-ray  
TB microbiology analysis

|   |   |   |   |
|---|---|---|---|
| <b>HIV test:</b><br><span style="color: green;">🚩</span>  | <b>Biobank:</b><br><span style="color: red;">🚩</span> | <b>Contact tracing initiated:</b>                 | <b>Reported to SSI:</b><br><span style="color: green;">🚩</span> |
| <b>Height (cm):</b><br>165 (03-01-2012)   | <b>Weight (kg):</b><br>69 (08-01-2013)                | <b>BMI (auto):</b><br>25,34 (08-01-2013)          |   |
| <b>Positive sputum microscopy:</b>  | <b>Latest sputum microscopy:</b>                      | <b>Positive sputum PCR:</b>                       | <b>Positive sputum culture:</b>                                 |
| <b>Positive extra-pulmonary microscopy:</b>   | <b>Positive extra-pulmonary PCR:</b>                  | <b>Positive extra-pulmonary culture:</b>          | <b>Extra-pulmonary TB location:</b><br>Lymph node               |
| <b>TB resistance</b><br>Isoniazid (28-03-2012)<br>Rifampicin (28-03-2012)<br>Ethambutol (28-03-2012)<br>Rifabutine (28-03-2012)<br>Isoniazid (20-02-2012)<br>Rifampicin (20-02-2012)<br>Ethambutol (20-02-2012) | <b>Type of active TB:</b><br>Extra-pulmonary          | <b>Quantiferon test:</b><br>Positive (29-11-2011) | <b>T-Spot test:</b>   |
| <b>HIV Ag/Ab:</b><br>Negative (29-11-2011)  | <b>CRP (mg/L):</b><br>1 (19-12-2012)                  | <b>ESR (mm):</b><br>3 (10-07-2013)                | <b>Hemoglobin (mmol/l):</b>                                     |

# InfCare for HIV, hepatitis & TB

## 3 missions

- Clinical decision support
  - *Overview of treatment and course of events for the individual patient*
- Quality assurance
  - *Overall control of analyses, treatment and follow-up*
- Reporting/research (*search tool*)
  - *Database with filter/search functionality*



Yearly quality assurance report



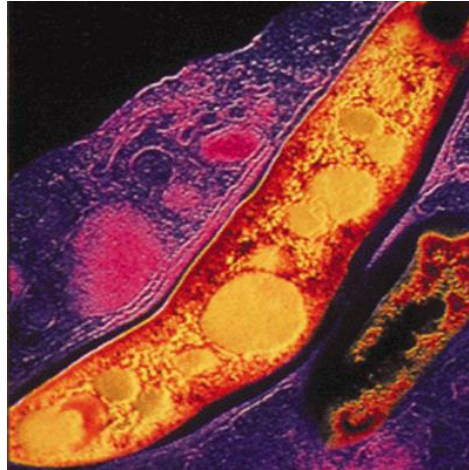
Scientific publications



# InfCare TB, HIV and hepatitis

## Data sources

- Biochemistry
  - *Labka*
- Mikrobiology
  - *SSI*
  - *MiBa*
- Medicine prescriptions
  - *EPJ*
- Base data, follow-up etc
  - *Secretariat for daily operation +++*





# InfCare for HIV already in use

ORIGINAL RESEARCH ARTICLE

COACTION

Int J Circumpolar Health 2012, 71: 18639

## Living conditions, quality of life, adherence and treatment outcome in Greenlandic HIV patients

Karin Ladefoged<sup>1\*</sup>, Mikael Andersson<sup>2</sup>, Anders Koch<sup>2</sup>,  
Thomas Rendal<sup>1</sup> and Millie Rydbacken<sup>1</sup>

<sup>1</sup>Medical Department, Queen Ingrid's Hospital, Nuuk, Greenland; <sup>2</sup>Department of Epidemiology Research, Statens Serum Institute, Copenhagen, Denmark

- Data from the InfCareHIV database used
- *Data available on 46 of 60 patients*

# InfCare also for hepatitis & TB

- Clinical study of impact on patient outcomes:
  - *Randomisation of all newly diagnosed and patients on active follow-up to A: Entrance into InfCare or B: Standard care*
- Practicalities
  - *Aprox 75 new cases of TB and 500 (?) hepatitis B and 50 (?) HCV patients to be randomised and half of them entered into the database.*
  - *Sanne Jespersen in Nuuk June-Nov 2012 to oversee the work*
  - *Follow-up 12 months*
- Outcome
  - *Timely performed diagnostic procedures (eg sputum smear, yearly ultrasound investigation for cirrhosis patients etc)*
  - *Proportion of good treatment outcome (TB cure/completed, sustained virological suppression in hepatitis)*

# Dept of Infectious Diseases, AUH / Center for Global Health, AU

- Expertise within HIV, TB and hepatitis
  - *Clinical management of patients*
  - *Ongoing research from basic science to epidemiology*
  - *Senior staff with short-term experience from Greenland*



# InfCare TB, HIV and hepatitis

**A possible area for future collaboration**

**between Greenland partners and ARC Health AU**

