# Comorbidity in cancer patients The Dutch Experience

Maryska Janssen-Heijnen



# What is frail? → Age?



Mek Wok Age: 107 yrs

Wants to marry for 23<sup>rd</sup> time!



#### Eindhoven Cancer Registry (ECR)

- Records comorbidity since 1993
- From medical records
- Adapted list of Charlson
   (J Chron Dis 1987;40:373-83)
- Validation studies completeness



#### Comorbidity recorded in ECR

- Chronic Obstructive Pulmonary Disease (COPD)
- Cardiac and vascular diseases
- Other malignancies (except basal cell skin carcinoma)
- Hypertension
- Diabetes Mellitus
- Other:

connective tissue diseases
rheumatoid arthritis
kidney diseases
bowel diseases
liver diseases
dementia
tuberculosis and other chronic infections

#### Validation on completeness

- 80-90% scored correctly
- Some underregistration:
  - -mainly cardiovascular conditions
  - -mainly due to unknown terminology, abbreviations or handwriting
- Improvement by:
  - -adding names of diseases and abbreviations to the list
  - -giving refining instructions to the registry team

# Special project: ACE-27

- ACE-27 classification was used for a special project
- Additional data collection from medical records
- Total severity score, but also severity score for each comorbid condition

- 2 classification systems (ECR and ACE-27):
  - Comparison of number of and type of comorbid conditions

### Comorbidity ECR vs ACE-27

- Median number of conditions per patient ECR somewhat lower than ACE-27, but: only 51% agreement on number of conditions in the same patient
  - → mostly due to different classification systems
- % agreement for most common conditions:

Cardiovascular	88%
Hypertension	91%
COPD	94%
Previous cancer	95%

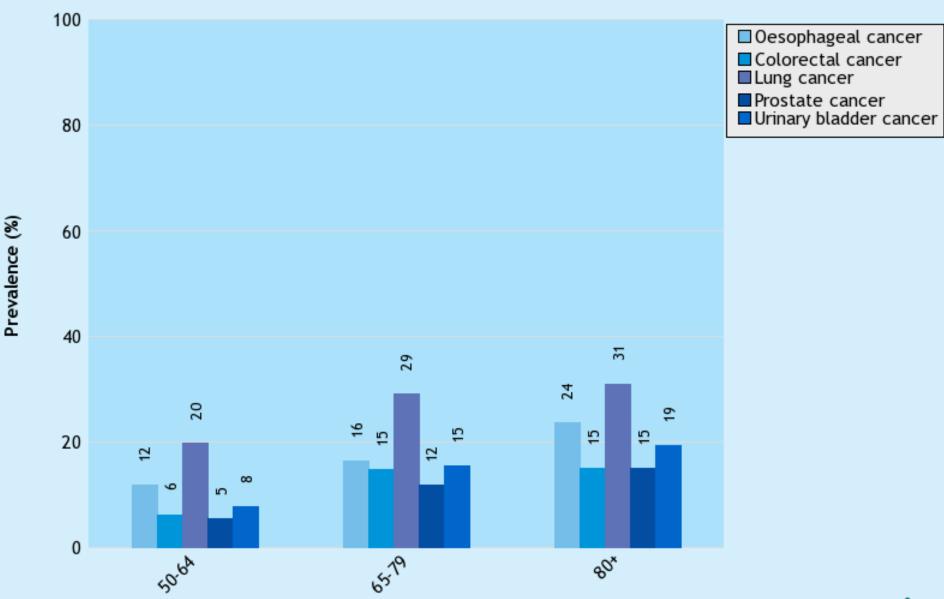
**Diabetes** 

### Use of comorbidity

- Independent influence of comorbidity (number of diseases, but also type of disease/combinations) on:
  - choice of treatment
  - side effects/complications
  - survival
- → insight into treatment and outcome in unselected elderly cancer patients

# Etiology

#### Comorbidity, COPD males prevalence by age and tumour type

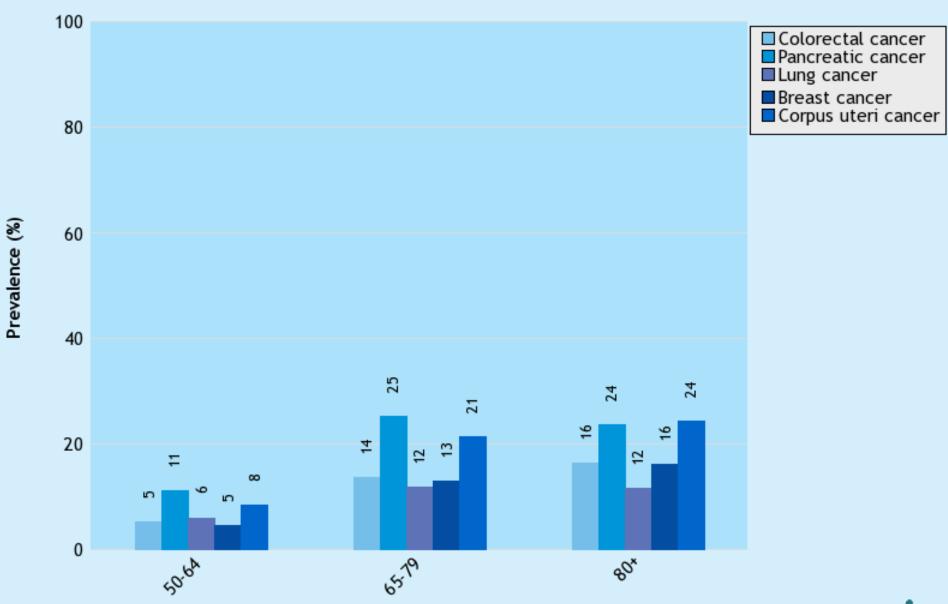


Age (years)

Source: Eindhoven Cancer Registry (IKZ) @ 30-09-2009



#### Comorbidity, diabetes females prevalence by age and tumour type



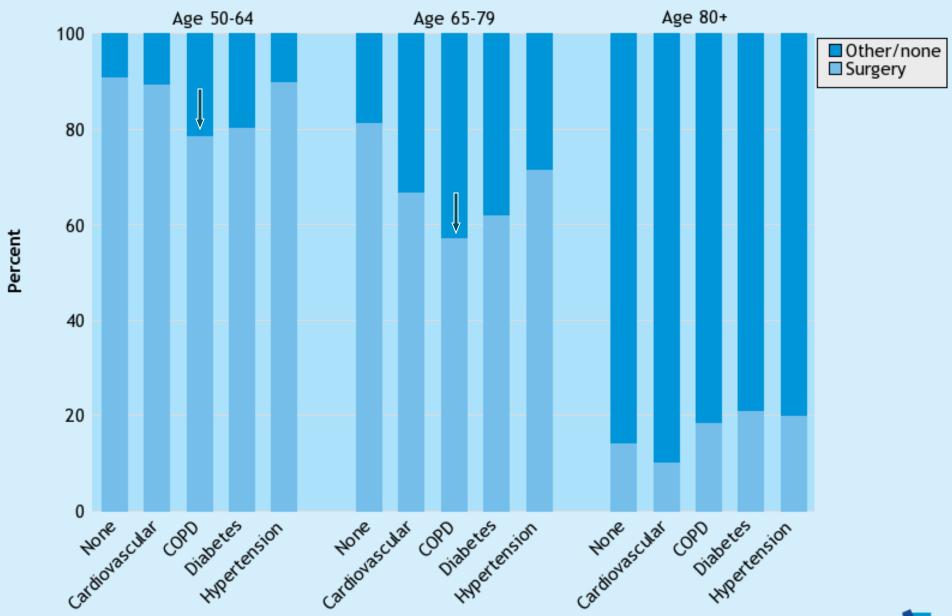
Age (years)

Source: Eindhoven Cancer Registry (IKZ) @ 30-09-2009

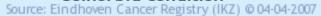


# Treatment Survival

#### Localised NSCLC resection rate by age and comorbidity

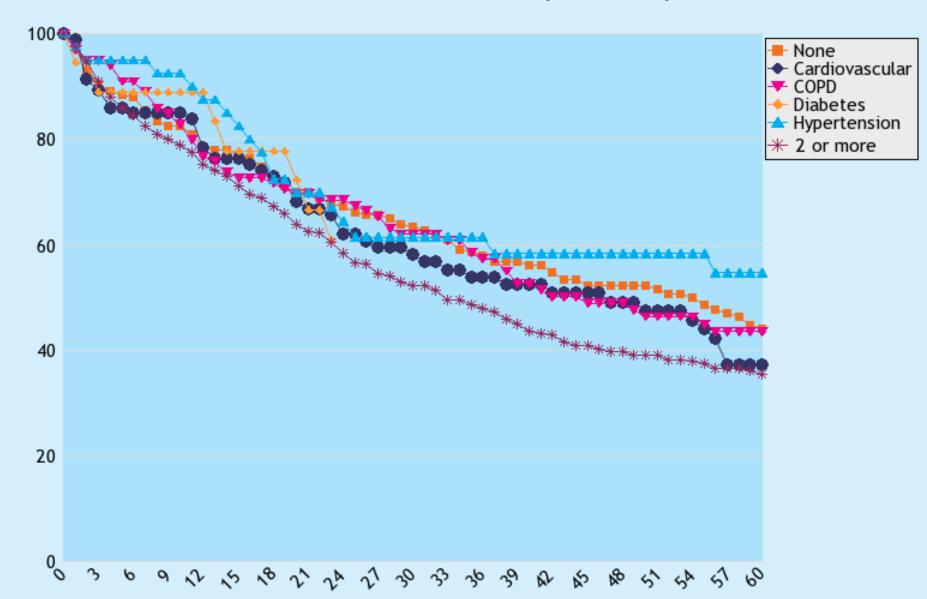


#### Comorbid condition



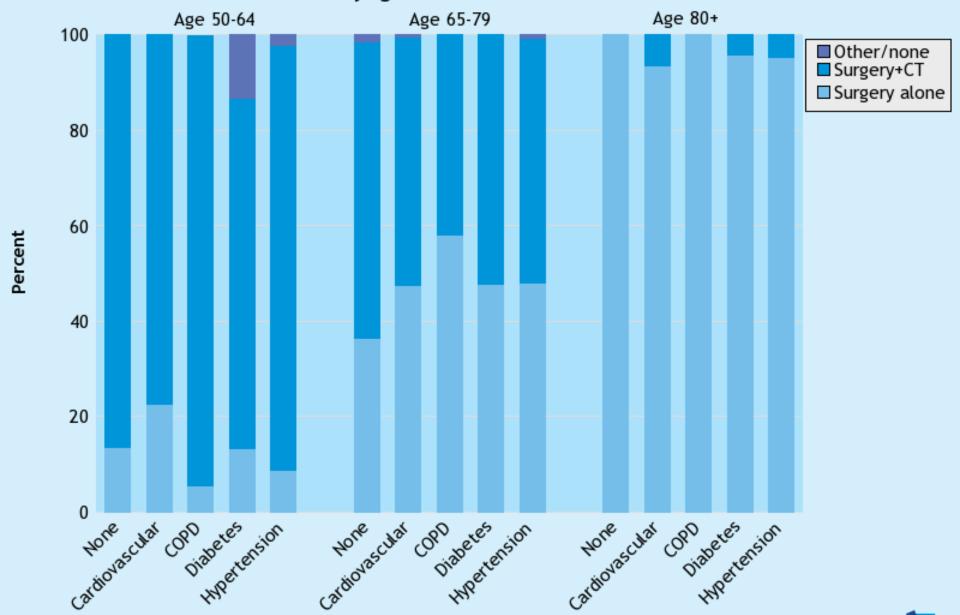


#### NSCLC age 65-79, resected stage I-II crude survival curve 1995-2004 by comorbidity





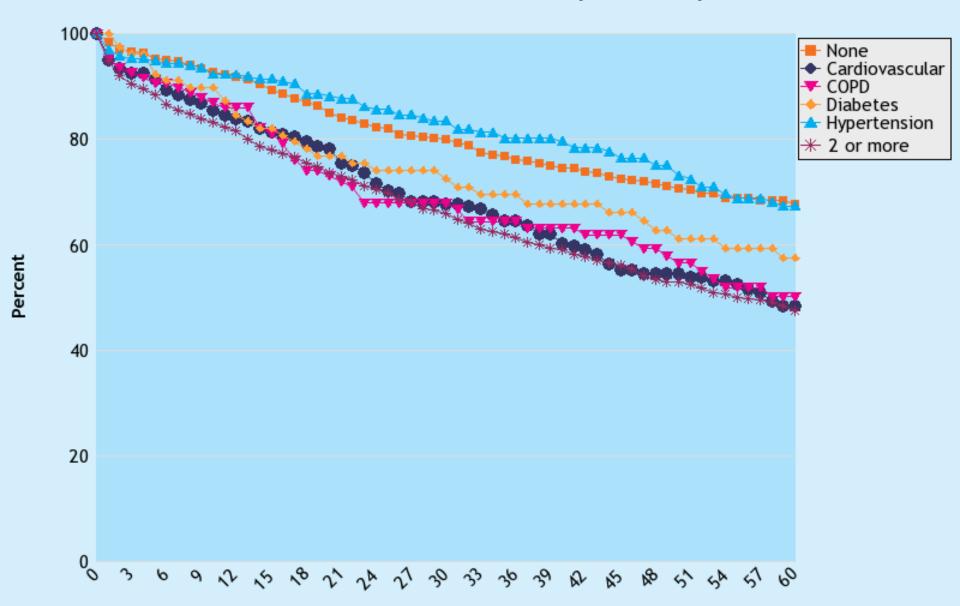
Colon cancer, stage III treatment by age and comorbid condition 2000-04



#### Comorbid condition



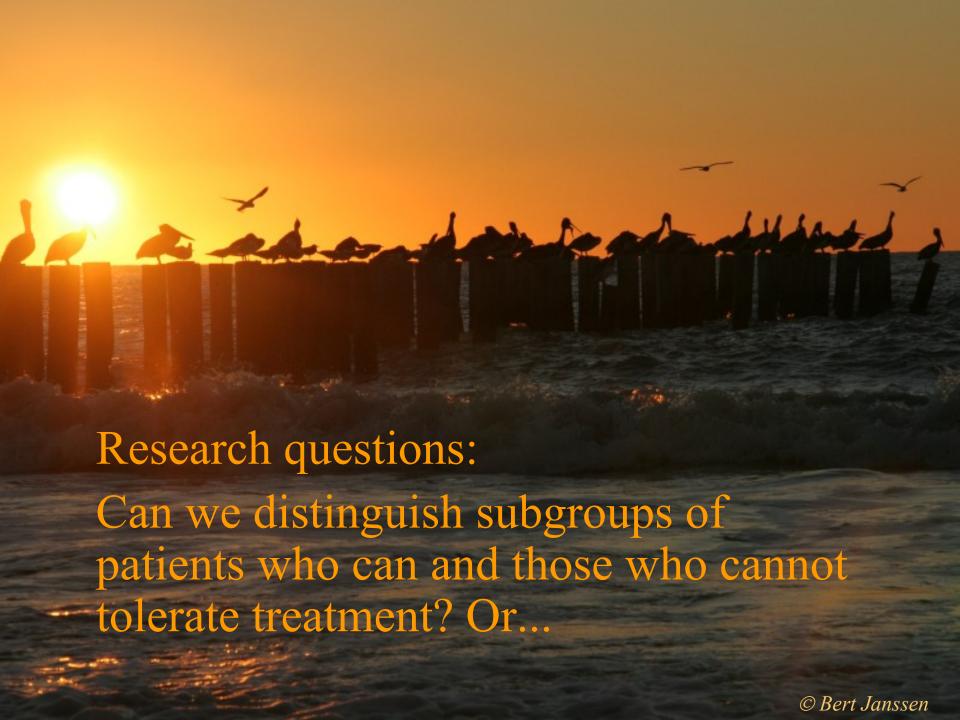
#### Colon cancer age 65-79, resected stage I-III crude survival curve 1995-2004 by comorbidity





#### Conclusions

- Recording of comorbidity is feasible in a cancer registry that records data from the medical records (a few minutes extra time for recording)
- Number of diseases, <u>severity</u> score and <u>type</u> of disease are important for including in analyses; choice depends on the research question



#### Do we need to individualize?





