

# Are comorbidities collected by cancer registries reliably traceable in administrative insurance databases?

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## INTRODUCTION & OBJECTIVE

- Comorbidities are identified in French cancer registries using Medical Records (MR)
- It is costly, time consuming and could bring errors due to measurement according the MR
- Nowadays in France, Administrative Databases (AD) are increasingly used according the growing exhaustiveness of the data and the easier access to them
- A comorbidities identification Algorithm in AD using reimbursement and hospital data was recently developed

**Our aim is to compare the distribution of comorbidities identified in a cancer registry with those identified in AD according a currently used algorithm to assess the possibility of use AD to collect these information**

## METHODS

### Study population

- Prostate high resolution study in 2008 according to registries and AD from 2011 to 2016
- AD used was the «Echantillon Generaliste des Beneficiaires», a random sample at scale 1/97, representative according age and sex of the French National health insurance database (SNDS)
- Incident cases of prostate cancer were identified in AD according to a algorithm developed by the French health insurance

### Comorbidities identification

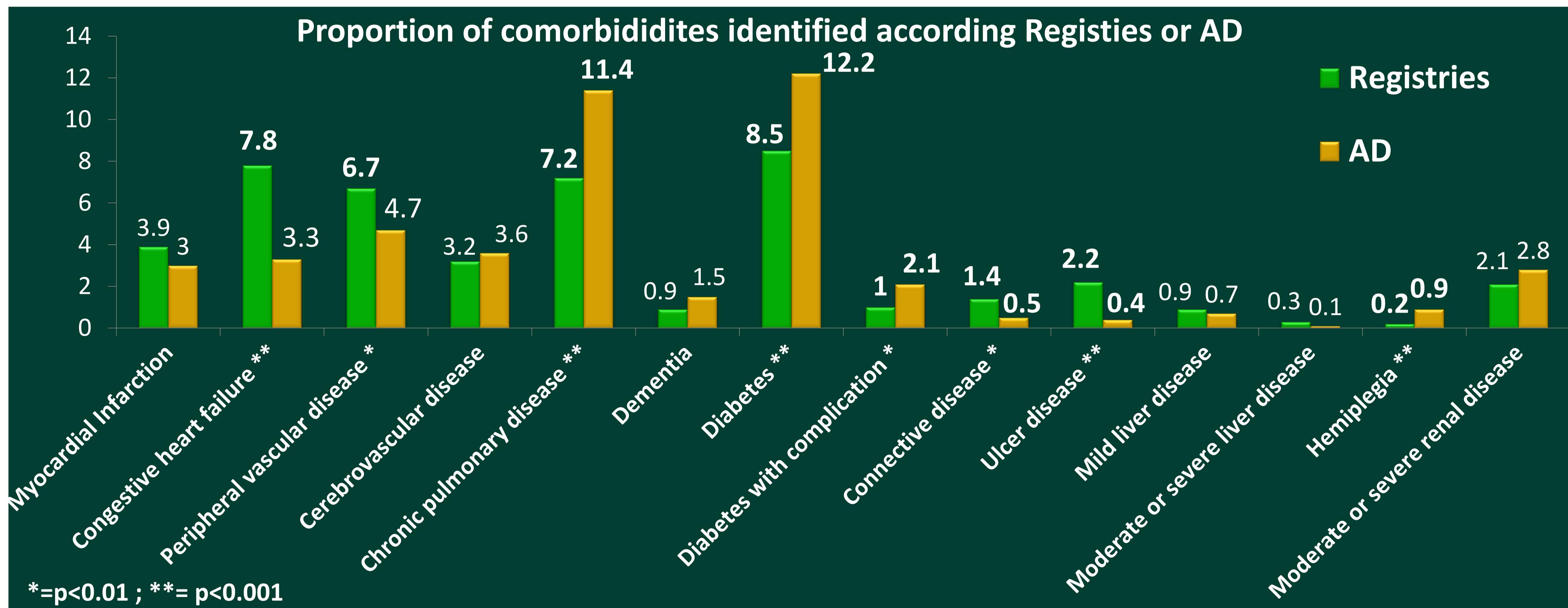
- Those used in the calculation of the Charlson Comorbidity Index (except AIDS/Cancer)
- With MR for registries
- With an algorithm for AD using :
  - Hospital discharge diagnoses (ICD-10)
  - Specific medical procedures
  - Specific medications
  - Long-Term Disease\* diagnoses (ICD-10)

\*: special scheme allowing reimbursement of a large part of disease-related costs

**Statistics used** : Proportion and Fisher's exact test

## RESULTS

**Study populations** : 1/ Registries. N: 2077; Mean age (sd): 68.7 (7.5). 2/ AD. N: 2488; Mean age (sd): 70.1 (7.7).



## CONCLUSION & DISCUSSION

- ➔ The main differences can be explained by taking into account measurement differences :
  - The medication to identify comorbidities according the data source (diabetes and pulmonary disease for AD, congestive heart failure for registries)
  - A larger set of pathology (congestive heart failure, peripheral vascular and connective disease for registries, pulmonary disease and diabetes with complication for AD)
  - Antecedents (ulcer disease, congestive heart failure) in registries which are likely not coded in in-hospital discharge database because they did not affect reimbursement of the disease by the health insurance

➔ Compared populations are not the same

**➔ Using AD with algorithms should be used to automate the identification of comorbidities in cancer registries because it is a powerful tool**

These results have to be completed by comparison according other localizations (breast, lung, colorectal cancer), using the same populations and identical comorbidity definitions