

# Is it possible to find anti-HCV-positive patients from hospital-based laboratory database?

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## Background

- Chronic hepatitis C (CHC) is one of major causes of liver diseases in Taiwan as well as in the world.
- Direct-acting anti-viral agents (DAA) achieve high sustain virological response rate (SVR) in treatment of patient with CHC.
- The National Health Insurance in Taiwan has reimbursed DAA since 2017.
- To meet the WHO goal of eradicating CHC before 2030, more CHC patients should be treated.

## Objectives

- The study tried to ensure the possibility in identifying anti-HCV-positive patients from existed hospital-based laboratory database.

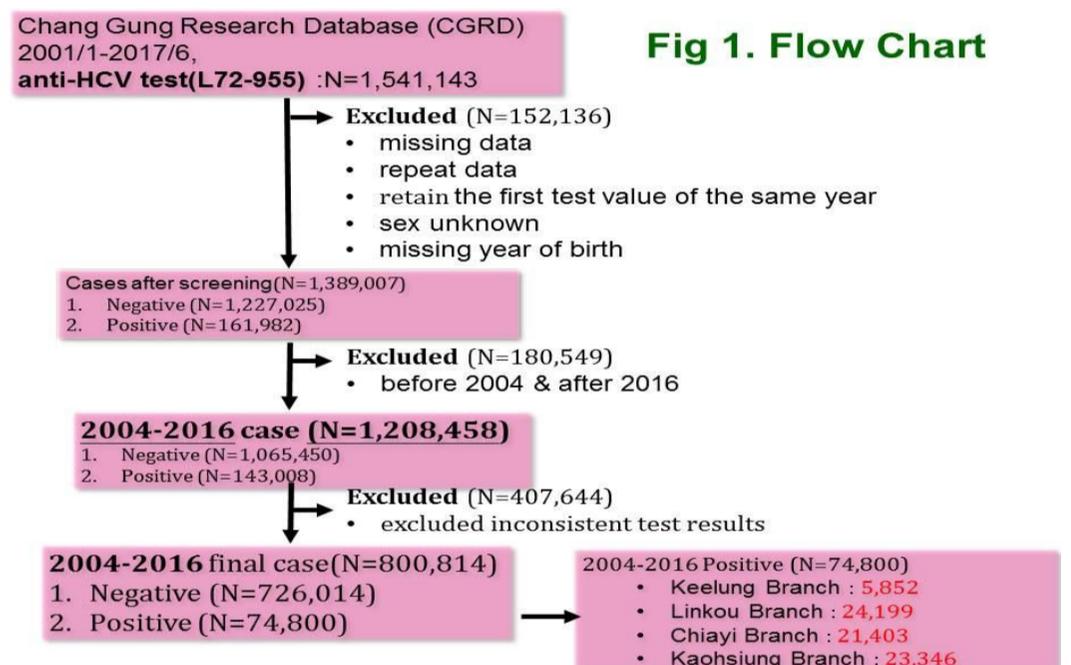
## Methods

- A decode database of laboratory tests of patients named Chang Gung Research Database (CGRD, 長庚研究資料庫) has been established for clinical research in the chain hospitals, Chang Gung Memorial Hospitals.
- We retrieve all reports of anti-HCV test for further analysis.
- The study protocol has been approved by the IRB of this institute.

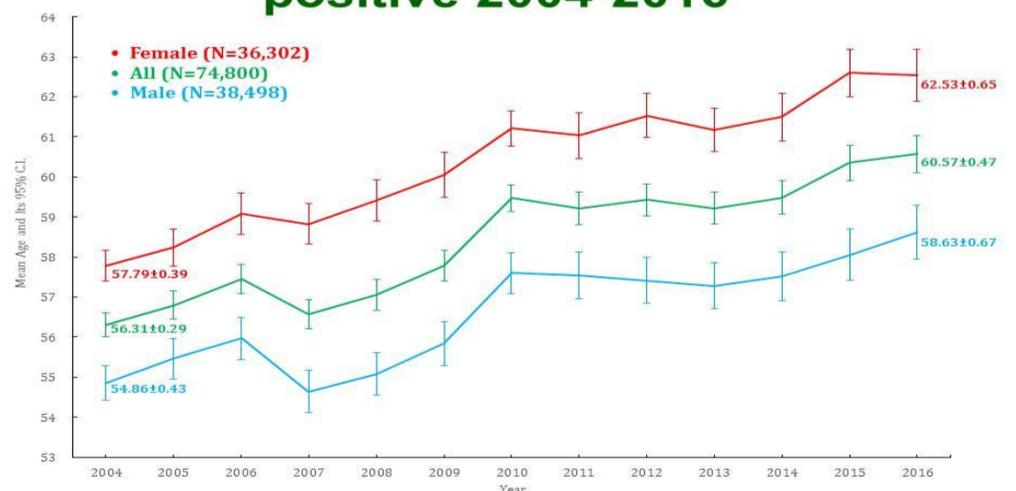
## Results

- From January 2004 to 2016, a total of 1,208,458 reports of anti-HCV test were retrieved.
- Among them, 143,008 tests were anti-HCV-positive.
- There were 74,800 patients were consistent anti-HCV positive, including
  - 5,852 from Keelung Branch,
  - 24,199 from Linkou Branch,
  - 21,403 from Chiayi Branch,
  - 23,346 from Kaohsiung Branch. (Fig 1)
- The anti-HCV-positive patients were significantly getting older by calendar years. Their mean ages were increasing from 54.9 years in 2004 to 58.6 years in 2016 for men, and 57.8 years to 62.5 years for women. (Fig 2)

- Anti-HCV seroconversion (i.e. inconsistent results)
  - positive conversion: 2448
  - negative conversion: 663



**Fig 2. The mean ages of anti-HCV positive 2004-2016**



## Conclusion

- From this large laboratory database, we recognize a lot of anti-HCV-positive patients can be found in hospitals.
- In this analysis we also noted that the anti-HCV-positive patients is getting older.
- Unexpected number of anti-HCV positive and negative conversion were noted. This issue should be further studied.