



Research using Taiwan National Health Data

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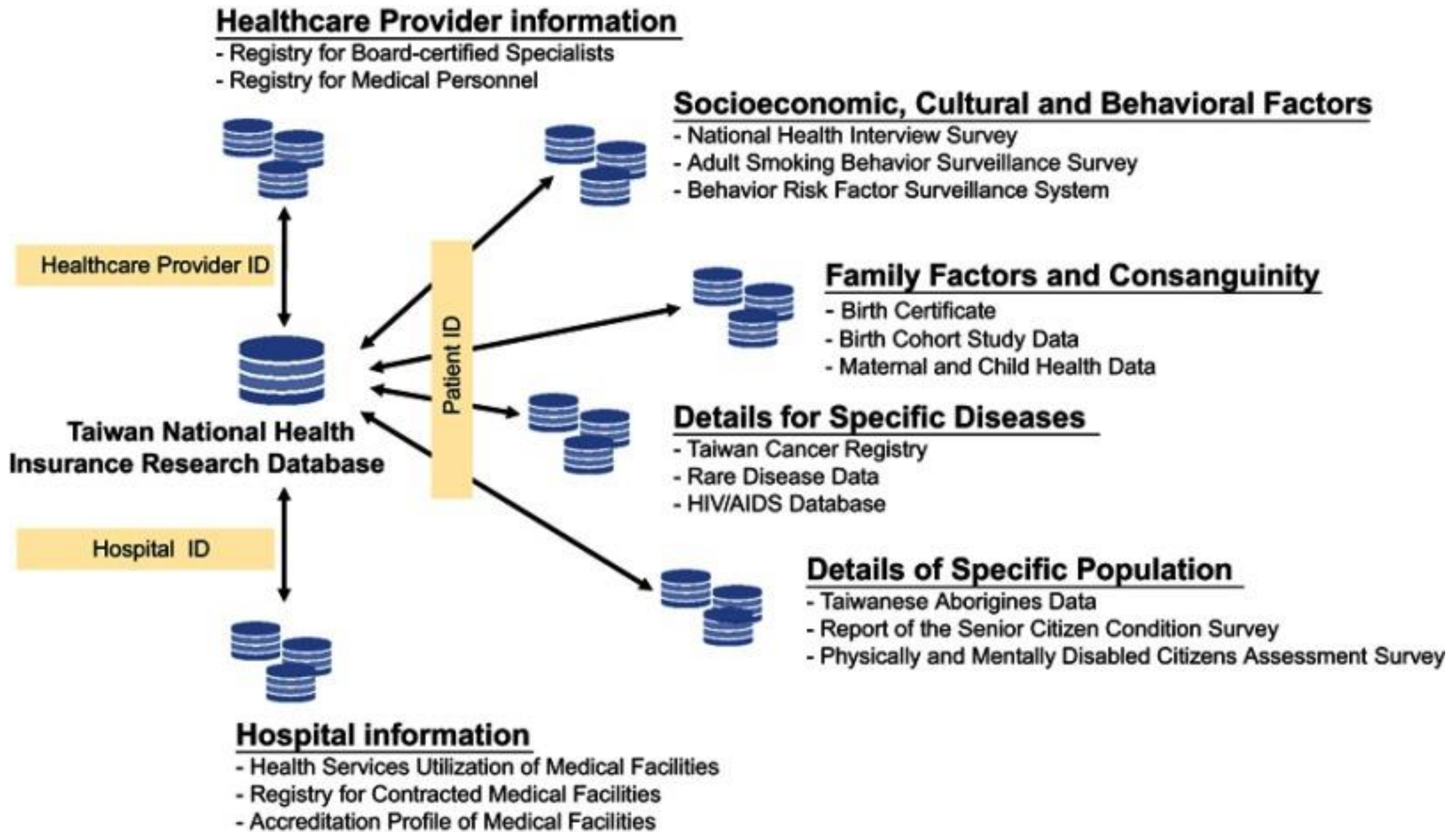
Taipei Medical University

Taiwan OHDSI



History of Taiwan National Health Insurance Database

- 1995: National Taiwan Insurance (NHI)
 - 23 million population/530 hospitals/17,000 clinics
- 2000: Taiwan's National Health Research Institutes (NHRI)
 - Taiwan National Health Insurance Database (NHIRD, claim data)
 - Longitudinal Health Insurance Databases (LHID2000, LHID2005, and LHID2010)
- 2016: The service is stopped



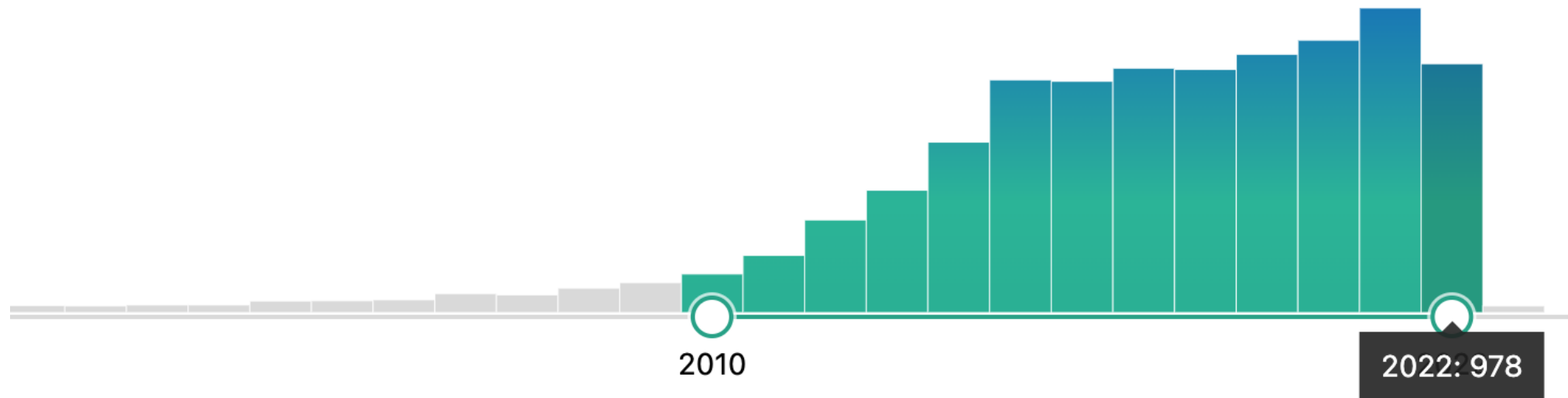


Health and Welfare Data Center (HWDC): Opportunity for Big data Analysis

- 2017 – present: Taiwan’s Ministry of Health and Welfare (MOHW)
 - HWDC, a large data repositories

8,493 results

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Viewpoint

March 3, 2020

Response to COVID-19 in Taiwan Big Data Analytics, New Technology, and Proactive Testing

C. Jason Wang, MD, PhD^{1,2}; Chun Y. Ng, MBA, MPH²; Robert H. Brook, MD, ScD^{3,4}

» Author Affiliations | Article Information

JAMA. 2020;323(14):1341-1342. doi:10.1001/jama.2020.3151

 COVID-19 Resource Center

 Related Articles

 Interviews

Taiwan is 81 miles off the coast of mainland China and was expected to have the second highest number of cases of coronavirus disease 2019 (COVID-19) due to its proximity to and number of flights between China.¹ The country has 23 million citizens of which 850 000 reside in and 404 000 work in China.^{2,3} In 2019, 2.71 million visitors from the mainland traveled to Taiwan.⁴ As such, Taiwan has been on constant alert and ready to act on epidemics arising from China ever since the severe acute respiratory syndrome (SARS) epidemic in 2003. Given the continual spread of COVID-19 around the world, understanding the action items that were implemented quickly in Taiwan and assessing the effectiveness of these actions in preventing a large-scale epidemic may be

ORIGINAL ARTICLE

Atezolizumab plus Bevacizumab in Unresectable Hepatocellular Carcinoma

Richard S. Finn, M.D., Shukui Qin, M.D., Masafumi Ikeda, M.D., Peter R. Galle, M.D., Michel Ducreux, M.D., Tae-You Kim, M.D., Masatoshi Kudo, M.D., Valeriy Breder, M.D., Philippe Merle, M.D., Ahmed O. Kaseb, M.D., Daneng Li, M.D., Wendy Verret, Ph.D., [et al.](#), for the IMbrave150 Investigators*

Article Figures/Media Metrics

May 14, 2020
N Engl J Med 2020; 382:1894-1905
DOI: 10.1056/NEJMoa1915745

FREE

Original Investigation

October 3, 2017

Association Between Use of Non-Vitamin K Oral Anticoagulants With and Without Concurrent Medications and Risk of Major Bleeding in Nonvalvular Atrial Fibrillation

Shang-Hung Chang, MD, PhD^{1,2,3}; I-Jun Chou, MD^{3,4}; Yung-Hsin Yeh, MD^{1,3}; [et al](#)

» Author Affiliations | Article Information

JAMA. 2017;318(13):1250-1259. doi:10.1001/jama.2017.13883

[Journal of Clinical Oncology](#) > [List of Issues](#) > [Volume 40, Issue 11](#) >

ORIGINAL REPORTS | [Gastrointestinal Cancer](#)

H1-Antihistamines Reduce the Risk of Hepatocellular Carcinoma in Patients With Hepatitis B Virus, Hepatitis C Virus, or Dual Hepatitis B Virus-Hepatitis C Virus Infection

 Check for updates

 [Yu-Chuan Shen](#)  MD¹; [Hui-Ching Hsu](#)  MD^{1,2}; [Tzu-Min Lin](#), MD^{2,3}; [Yu-Sheng Chang](#), MD^{2,4}; [Li-Fang Hu](#), MD³; [Lung-Fang Chen](#)  MD^{1,2}; ...

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ORIGINAL ARTICLE |  Open Access |   

Statins use and its impact in EGFR-TKIs resistance to prolong the survival of lung cancer patients: A Cancer registry cohort study in Taiwan

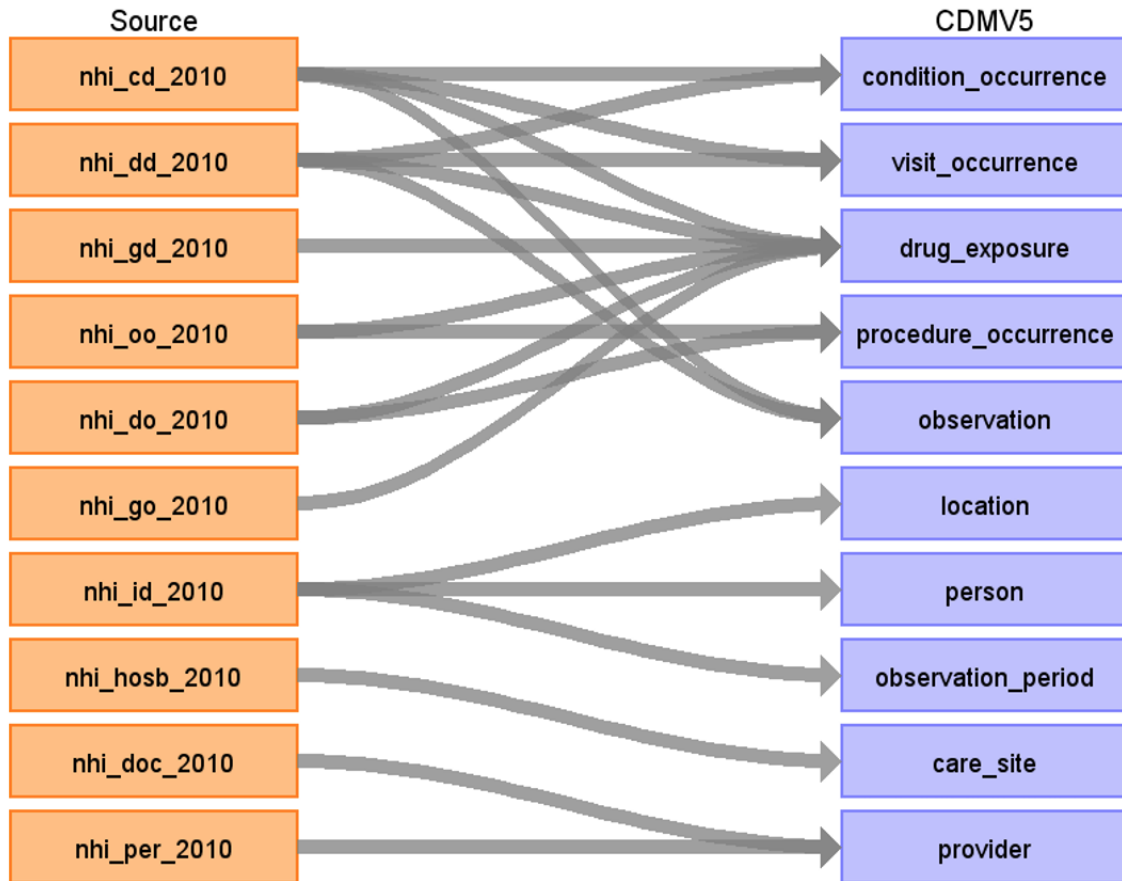
Phung-Anh Nguyen, Chih-Cheng Chang, Cooper J. Galvin, Yao-Chin Wang, Soo Yeon An, Chih-Wei Huang, Yu-Hsiang Wang, Min-Huei Hsu, Yu-Chuan (Jack) Li , Hsuan-Chia Yang 

First published: 22 May 2020 | <https://doi.org/10.1111/cas.14493> | Citations: 11



NHIRDB & OHDSI

Source Data Mapping Approach to CDMV5



JOURNAL ARTICLE

Uncovering exposures responsible for birth season – disease effects: a global study

Mary Regina Boland , Pradipta Parhi, Li Li, Riccardo Miotto, Robert Carroll, Usman Iqbal, Phung-Anh (Alex) Nguyen, Martijn Schuemie, Seng Chan You, Donahue Smith ... [Show more](#)

Journal of the American Medical Informatics Association, Volume 25, Issue 3, March 2018, Pages 275–288, <https://doi.org/10.1093/jamia/ocx105>

Published: 28 September 2017 **Article history**

Paediatrics
Original research

Application of a Common Data Model (CDM) to rank the paediatric user and prescription prevalence of 15 different drug classes in South Korea, Hong Kong, Taiwan, Japan and Australia: an observational, descriptive study

Ruth Brauer¹, Ian Chi Kei Wong^{1, 2}, Kenneth KC Man^{1, 2}, Nicole L Pratt³, Rae Woong Park⁴, Soo-Yeon Cho⁴, Yu-Chuan (Jack) Li^{5, 6, 7, 8}, Usman Iqbal^{6, 9, 10}, Phung-Anh Alex Nguyen⁶, Martijn Schuemie^{11, 12}

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Original Investigation | Cardiology

Analysis of Dual Combination Therapies Used in Treatment of Hypertension in a Multinational Cohort

Yuan Lu, ScD; Mui Van Zandt, BS; Yun Liu, PhD; Jing Li, MS; Xialin Wang, MS; Yong Chen, PhD; Zhengfeng Chen, MBBS, MMed; Jaehyeong Cho, PhD; Sreemaneesha Raaj Dorajoo, PhD; Mengling Feng, PhD; Min-Huei Hsu, MD, PhD; Jason C. Hsu, PhD; Usman Iqbal, PharmD, MBA, PhD; Jitendra Jonnagaddala, PhD; Yu-Chuan Li, MD, PhD; Siaw-Teng Liaw, MBBS, PhD; Hong-Seok Lim, MD, PhD; Kee Yuan Ngiam, MBBS, MMed; Phung-Anh Nguyen, PhD; Rae Woong Park, MD, PhD; Nicole Pratt, PhD; Christian Reich, MD, PhD; Sang Youl Rhee, MD; Selva Muthu Kumaran Sathappan, MSc; Seo Jeong Shin, PhD; Hui Xing Tan, MTEch; Seng Chan You, MD, PhD; Xin Zhang, MS; Harlan M. Krumholz, MD, SM; Marc A. Suchard, MD, PhD; Hua Xu, PhD

Abstract

IMPORTANCE More than 1 billion adults have hypertension globally, of whom 70% cannot achieve their hypertension control goal with monotherapy alone. Data are lacking on clinical use patterns of dual combination therapies prescribed to patients who escalate from monotherapy.

OBJECTIVE To investigate the most common dual combinations prescribed for treatment escalation in different countries and how treatment use varies by age, sex, and history of cardiovascular disease.

DESIGN, SETTING, AND PARTICIPANTS This cohort study used data from 11 electronic health record databases that cover 118 million patients across 8 countries and regions between January 2000 and December 2019. Included participants were adult patients (ages ≥ 18 years) who newly

Key Points

Question What are the most common antihypertensive dual combinations prescribed to patients who escalate from monotherapy in clinical practice, and how do the combinations differ by country and patient demographic subgroup?

Findings In this cohort study of 970 335 individuals from 11 large databases, 12 dual combinations of antihypertensive drug classes were



Future Opportunities



- OHDSI CDM
 - Increases accessibility of this data for research
- Collaborations
 - Taiwan & other countries/Universities/Hospitals
 - Evidence generated from it is reliable
 - Save time, money, and improves the quality and consistency of the data



Thank you for your attention!

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Q/A?