



Global Perspectives



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Accredited integrating authority



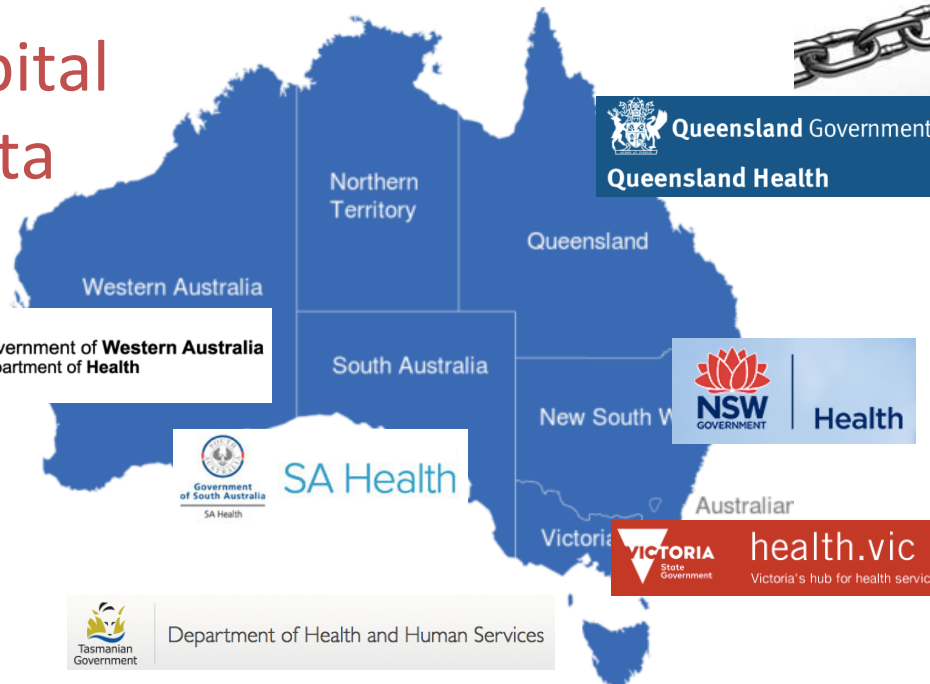
Coordinating centre for cross-jurisdictional linkages



NCRIS
National Research
Infrastructure for Australia
An Australian Government Initiative



Hospital
Data



Medicines,
Outpatient Data



My experience with Implementation of OMOP CDM in Australia!



10% Sample of MBS/PBS data
*Participated in OHDSI Network Study
– Medicine use in children*

Converted



Australian Government
Department of Veterans' Affairs

~250,000 veterans/spouses

Preparing



Registry of ~1.5 million joint
replacement procedures linked to
MBS/PBS data

Proposed

Opportunities for Implementing OMOP CDM and OHDSI tools in Australia



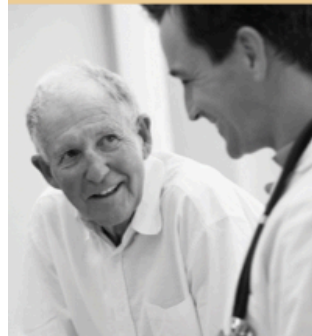


Australian Government
Department of Veterans' Affairs

- Treatment population of approximately 248,800 veterans
- Median age is 83 years, with 5 co-morbidities
- > 130 million prescription records over >15 years
- > 200 million Medicare and allied health records (GP visits, radiology, pathology etc)
- > 6 million hospital records (public and private)



Using administrative health claims data to improve primary care practice



Veterans' MATES



Australian Government
Department of Veterans' Affairs



Sansom Institute
for Health Research

Targeted Interventions to Improve medicine use in Veteran community

Example: *management of diabetes*

Module 4: to reduce NSAID use in those with diabetes

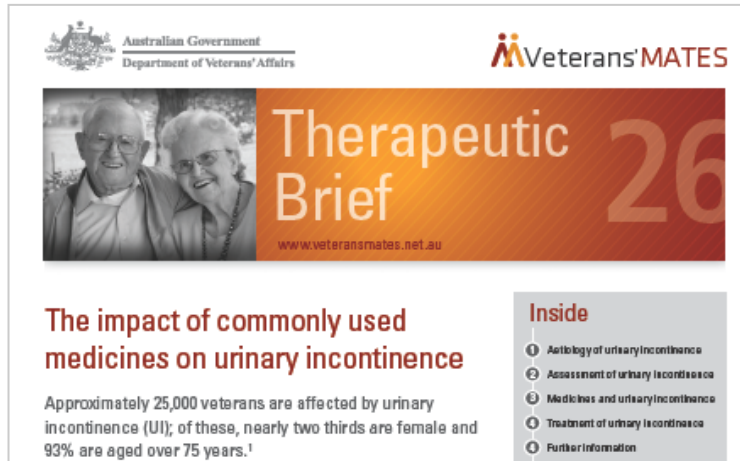
Module 11: promote appropriate medicine use and increased care services in patients with established diabetes

Module 34: appropriate medicine use and increased care services in patients with newly diagnosed diabetes

The Veterans' MATES approach

Every three months a targeted health intervention is distributed:

- A letter, patient-based feedback and educational material are sent to the veteran's main **GP**.
- A letter and educational material are sent to **pharmacists and other relevant health professionals**.
- A letter and educational material is sent to members of the **veteran** community for whom the health topic is relevant.



Australian Government
Department of Veterans' Affairs

Veterans' MATES

Therapeutic Brief 26

www.veteransmates.net.au

The impact of commonly used medicines on urinary incontinence

Approximately 25,000 veterans are affected by urinary incontinence (UI); of these, nearly two thirds are female and 93% are aged over 75 years.¹

Inside

- 1 Aetiology of urinary incontinence
- 2 Assessment of urinary incontinence
- 3 Medicines and urinary incontinence
- 4 Treatment of urinary incontinence
- 5 Further information



Veterans' MATES

Bladder control problems? What you need to know

Get the best from your medicines

Australian Government
Department of Veterans' Affairs

...adversely affects... it has been reported... any incontinence have... and general health than... ment. In frail older... aged with increased... years which can... ion to an aged care... inence is associated... risk of falls.

This Veterans' MATES therapeutic brief aims to increase awareness of commonly used medicines which can precipitate or worsen urinary incontinence. Whilst it may not be

Key points

- 2 Many commonly used medicines may cause or

Topic 26: Urinary incontinence

Patient selection criteria: Dispensed a medicine for urinary incontinence and/or supplied with a continence product.
Information included: Dispensed medicines associated with urinary incontinence in the four month period 1st September 2010 to 31st December 2010.

Baseline (1 September 2010 to 31 December 2010)

Drug Name	Brand	Strength	Last Dispensed	Other Prescriber
*OXYBUTYNIN HCL	Ditropan	Tab 5mg	19/04/2010	N
**TRAMADOL HCL	APO-Tramadol SR	Tab 150mg (SR)	06/09/2010	N
**FRUSEMIDE	GenRx Frusemide	Tab 40mg	07/10/2010	Y

What is the type of accommodation: Community
Date of the last medication review claimed: None claimed in last 12 months.

Notes:
*Medicine indicated for urge incontinence only
**If incontinence symptoms followed medicine initiation, consider dose reduction, alternative therapy or cessation
Consider a medicines review

Your action...

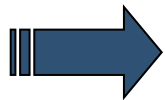
- ☐ Initiate patient review
- ☐ Change or cease medicine(s)
- ☐ Initiate medicines review

Delivered > 50 interventions over 14 years
32,000 doctors
8,500 pharmacies
290,000 veterans

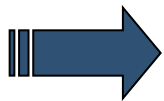
Veterans' MATES Interventions



Planning



Medication-related problem analysis



Intervention

Development

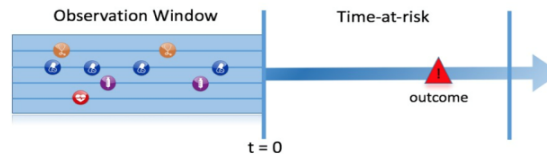


OHDSI Mission:
To improve health by empowering a community to collaboratively generate the evidence that promotes better health decisions and better care

Patient Profiles

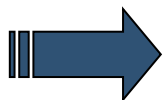


ATLAS



**Patient-level
Prediction**

Evaluation



Evaluation of practice change and improved health outcomes



Population-level Estimation

Opportunities for Implementing OMOP CDM and OHDSI tools in Asia



ORIGINAL REPORT

Comparative safety of NSAIDs for gastrointestinal events in Asia-Pacific populations: A multi-database, international cohort study

Edward Chia-Cheng Lai, Ju-Young Shin, Kiyoshi Kubota, Kenneth K.C. Man, Byung Joo Park, Nicole Pratt, Elizabeth E. Roughead, Ian C.K. Wong, Yea-Huei Kao Yang, Soko Setoguchi

First published: 19 September 2018 | <https://doi.org/10.1002/pds.4663>



Common Protocol



Asian Pharmacoepidemiology Network

Multi-country rapid adverse drug event assessment: the Asian Pharmacoepidemiology Network (AsPEN) antipsychotic and acute hyperglycaemia study

Nicole Pratt¹, Morten Andersen², Ulf Bergman³, Nam-Kyong Choi³, Tobias Gerhard^{4,5}, Cecilia Huang⁴, Michio Kimura⁶, Tomomi Kimura⁶, Kiyoshi Kubota⁷, Edward Chia-Cheng Lai⁸, Nobuhiro Ooba⁹, Urban Ösby⁹, Byung-Joo Park^{10,11}, Tsugumichi Sato¹⁰, Ju-Young Shin¹⁰, Anders Sundström², Yea-Huei Kao Yang⁸ and Elizabeth E. Roughead¹²

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DRUG SAFETY 2013
bary (wileyonlinelibrary.com) DOI: 10.1002/pds.3440

ORIGINAL REPORT

Cardiovascular safety of methylphenidate among children and young people with attention-deficit/hyperactivity disorder (ADHD): nationwide self controlled case series study

Ju-Young Shin,^{1,2} Elizabeth E Roughead,³ Byung-Joo Park,⁴ Nicole L Pratt³

Drug Saf (2015) 38:823–831
DOI: 10.1007/s00264-015-0318-4



ORIGINAL RESEARCH ARTICLE

Variation in Association Between Thiazolidinediones and Heart Failure Across Ethnic Groups: Retrospective analysis of Large Healthcare Claims Databases in Six Countries

Elizabeth E. Roughead¹ · Esther W. Chan² · Nam-Kyong Choi³ · Michio Kimura⁴ · Tomomi Kimura⁴ · Kiyoshi Kubota⁵ · Edward Chia-Cheng Lai⁶ · Kenneth K. C. Man⁷ · Tuan Anh Nguyen¹ · Nobuhiro Ooba⁸ · Byung-Joo Park^{7,8} · Tsugumichi Sato⁹ · Ju-Young Shin⁸ · TongTong Wang⁸ · Jenna Griffiths⁹ · Ian C. K. Wong⁸ · Yea-Huei Kao Yang⁸ · Nicole L. Pratt¹

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Original Research

Proton pump inhibitors and risk of *Clostridium difficile* infection: a multi-country study using sequence symmetry analysis

Elizabeth E Roughead, Esther W Chan, Nam-Kyong Choi, Jenna Griffiths, Xue-Mei Jin, Joongyub Lee, ...show all
Pages 1589–1595 | Received 29 Mar 2016, Accepted 14 Sep 2016, Accepted author version posted online: 19 Sep 2016, Published online: 27 Sep 2016

Download citation | <http://dx.doi.org/10.1080/14740338.2016.1238071>



Clinical Epidemiology

Dovepress

Open access to scientific and medical research

ORIGINAL RESEARCH

Applying a common data model to Asian databases for multinational pharmacoepidemiologic studies: opportunities and challenges

This article was published in the following Dove Press journal:
Clinical Epidemiology

Edward Chia-Cheng Lai,^{1,4} Patrick Ryan,⁵ Yinghong Zhang,⁶ Martin Schuemie,⁷ N. Chantelle Hardy,⁸ Yukari Kamijima,⁹ Shinya Kimura,⁹ Kiyoshi Kubota,⁹ Kenneth KC Man,¹⁰ Soo Yeon Cho,¹¹ Rae Woong Park,¹² Paul Stang,¹³ Chien-Chou Su,¹³ Ian CK Wong,¹⁴ Yea-Huei Kao Yang,¹⁵ Soko Setoguchi¹¹

Objective: The goal of the Asian Pharmacoepidemiology Network is to study the effectiveness and safety of medications commonly used in Asia using databases from individual Asian countries. An efficient infrastructure to support multinational pharmacoepidemiologic studies is critical to this effort.

Study design and setting: We converted data from the Japan Medical Data Center database, Taiwan's National Health Insurance Research Database, Hong Kong's Clinical Data Analysis and Reporting System, South Korea's Ajou University School of Medicine database, and the US Medicare 5% sample to the Observational Medical Outcome Partnership common data model (CDM).

Results: We completed and documented the process for the CDM conversion. The coordinat-

Common Analytic Program

Common Data Model

AsPEN



Future Directions and challenges

Large-scale evidence generation of the safety and effectiveness of biologic medicines



Australian Government

National Health and Medical Research Council

Chief Investigators

Nicole Pratt, Libby Roughead, Lisa Kalisch Ellett Michael
Ward (Australia)

Marc Suchard, Martijn Schueie, Ian Wong (OHDSI)
Ju-Young Shin , Edward Lai, Yea-Huei Yang, Nam-Kyong
Choi (AsPEN)

Michal Abrahamowicz (Canada)



OHDSI Large-Scale Evidence Generation
and Evaluation in a Network of Databases
(LEGEND)

Methods Library:
Cumulative Exposures

Challenges

➤ Implementation

➤ Medicine Mapping, PBS to Australian Medicines Terminology (AMT)

- AMT developed to support Australia's My Health Record (Australian Government, Australian Digital Health Agency)

➤ Adoption

➤ Security of data

➤ Fragmented data sources requiring probabilistic linkage

➤ Collaboration

➤ Time Zone

- Shout out to the Eastern Hemisphere teleconferences (Wednesdays GMT -4, Hong Kong Time (3pm))