

data inputs to economic analyses that reflect real-world practice is a common reason for uncertainty on the cost effectiveness of new technologies. In addition to resource use and costs, there may be other uncertainties regarding the eligible patient population, patient management pathways and comparator selection. Our objective in this study was to present case studies from Australia where real world linked datasets could be better utilized to inform HTA conducted by the MSAC.

METHODS:

For selected therapy areas, assessment reports and public summary documents of HTA conducted by the MSAC published between January 2015 and November 2017 were reviewed. Our analysis identified HTAs where uncertainties around the inputs for health economic evaluations, as well as uncertainties in defining eligible patient numbers or current patient pathways of care were shown to exist. We then explored whether these uncertainties could have been addressed through real world linked datasets.

RESULTS:

Our preliminary investigations identified two assessments: MSAC assessment of capsule endoscopy and transcatheter aortic valve implantation - where availability of real world linked data could have addressed uncertainties around the inputs required for the health economic evaluations.

CONCLUSIONS:

Australia has a range of real world datasets with the potential to be used to inform HTA conducted by the MSAC. This can only be achieved if the datasets could be better linked and accessible for use by key stakeholders in the MSAC HTA process (e.g. industry, clinician, patient societies). Use of these data sets in HTA will enable timelier patient access to cost-effective technologies and more effective implementation and review of technologies after adoption into clinical practice.

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OP08 Using Real World Data To Support National Postmarketing Surveillance

AUTHORS:

Yeqin Zuo, Bernie Mullen, Rachel Hayhurst, Karen Kaye, Renee Granger, Jonathan Dartnell (jdartnell@nps.org.au)

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INTRODUCTION:

While medicines and medical tests are developed in a controlled clinical trial environment, postmarketing surveillance in the real world can be challenging. MedicineInsight—a database of longitudinal patient-level clinical information from primary care practices in Australia—is a novel program that collects primary care data to improve postmarketing surveillance at a national level.

METHODS:

MedicineInsight collects de-identified clinical information from primary care practice information systems using data extraction tools. MedicineInsight currently includes 3.6 million regular patients of 3,300 family physicians (general practitioners) from 650 primary care practices across Australia. MedicineInsight data include longitudinal clinical information on diagnosis and medicines (dose, strength, route of administration, medication switches over time, adverse events, and allergies), and pathology testing data. A series of observational studies was developed for postmarketing surveillance of management of a range of health priorities including type 2 diabetes mellitus (T2DM), chronic obstructive pulmonary disease (COPD), depression, and antibiotics use.

RESULTS:

Forty-four percent of patients with T2DM in the MedicineInsight database did not have a recorded hemoglobin A1c result and thirty-one percent did not have a recorded blood pressure reading in the previous 6 months. While guidelines recommend a stepwise approach to the initiation of COPD therapy, forty-nine percent of patients with COPD (with or without asthma) were prescribed dual therapy at initiation and a small number (4.5 percent) were prescribed triple therapy. Between 2011 and 2015, the annual rate of antidepressant prescribing per 1,000 family physician encounters increased by eight percent. High volumes of antibiotics were prescribed for respiratory tract infections in Australian primary care, notwithstanding guideline recommendations that antibiotics are not recommended in most cases.

CONCLUSIONS:

Large scale, real-world clinical data from primary care practices can play an important role in postmarketing surveillance at a national level.

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