Australian Government
Department of Health
Therapeutic Goods Administration

Real World Evidence in the Regulation of Medical Devices

The Regulator's Perspective

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TGA Health Safety Regulation

The Government is in caretaker mode and in accordance with the caretaker conventions I will be limiting my statements today to factual issues and matters of administration.

November 2021

PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

The New Frontier - Delivering better health for all Australians

Inquiry into approval processes for new drugs and novel medical technologies in Australia

House of Representatives Standing Committee on Health, Aged Care and Sport

November 2021
CANBERRA

What is Real World Evidence (RWE)?

- Analysis of Real World Data (RWD)
  - Many potential sources, but need to establish linkages
  - Systematic collection potentially, but not always
  - Prospective or retrospective
- Many potential study designs
- Different statistical techniques will apply to:
  - Different sources of data
  - Confounders identified
  - Endpoints
- Scale of data = opportunity

Review of real world evidence and patient reported outcomes

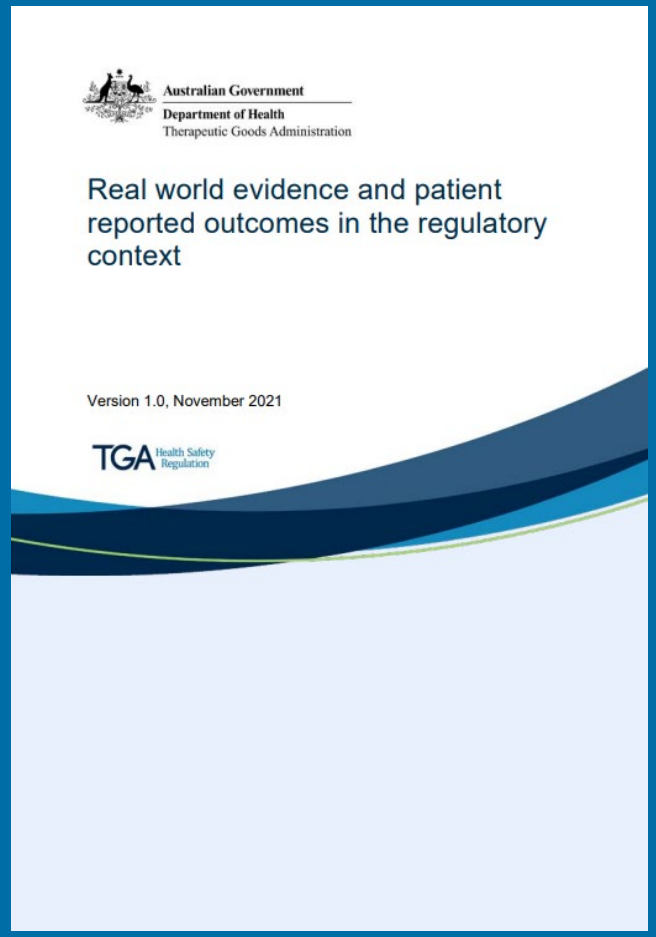
24 November 2021

- Review into TGA's usage of RWE and patient reported outcomes (PROs) in the regulation of medicines and medical devices. This considered stakeholders' understanding of what RWE and PROs are, and how we and other international regulators use them.

- We use both RWE and PROs in premarket and post market evaluations, and the review found that:
  - there is ambiguity (internally and externally) surrounding our usage of RWE and PROs, which potentially limits its adoption.
  - stakeholders recommend that we improve our communication about how the TGA accept and use RWE and PROs.

- Full review published at: Real world evidence and patient reported outcomes in the regulatory context (tga.gov.au)

Where are we now?



TGA response

The TGA already accepts the inclusion of RWE and PROs in submissions and assesses them during the review process. However, we acknowledge that this has been insufficiently communicated to some sponsors, healthcare professionals and patient groups. In addition, the critical use of RWE for emerging technologies, such as gene, cell and tissue therapies and software based medical devices is a critical and necessary component to understanding and enhancing the performance of such products.

During 2021-22 we will establish a central point of information on the TGA website to:

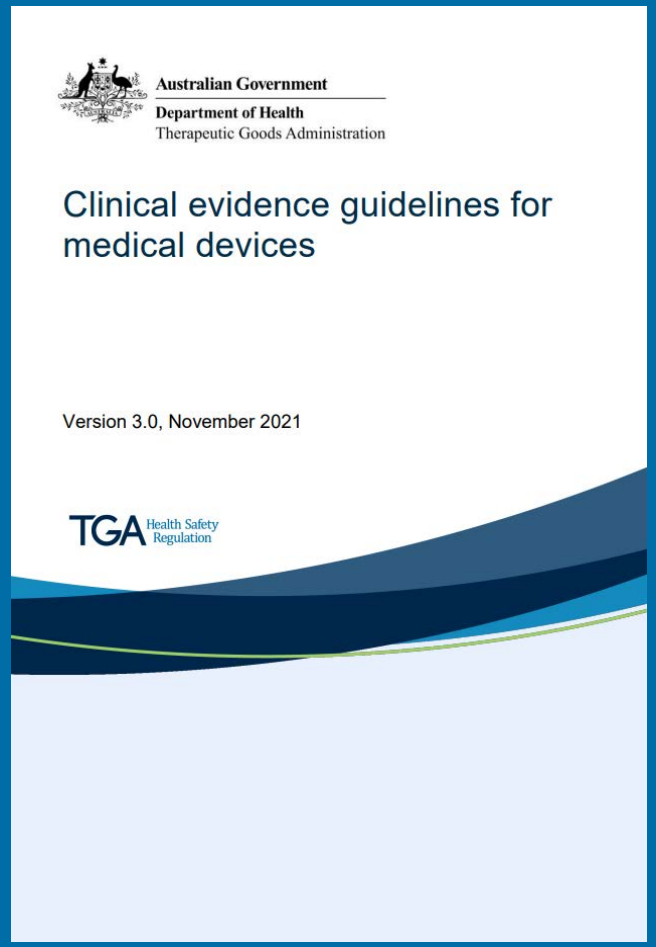
- communicate the use of RWE and PROs for pre-market evaluation of products and how we define it,
- consult on the development or adoption of separate draft guidance documents for medicines and medical devices, and
- communicate when RWE and PROs have been utilised in reaching a regulatory decision.

We will also confirm how the utilisation of RWE and PROs already underpin post-market safety monitoring.

In 2022/23 we will:

- Establish a central point for information about RWE and PROs on the TGA website
- Request sponsors to document where RWE and PROs have been included in applications
- Begin to communicate when RWE and PROs are used in making regulatory decisions
- Consult on relevant guidance for the use of RWE and PROs
- Continue to learn from international sources for generation of RWE and PROs
- Understand how we might support the enhanced use of RWE and PROs into the future
- Encourage the adoption of medical device unique device identifiers in the broader healthcare system and in device registries, to support a stronger foundation for the collection of RWE and PROs

Where are we now?



Other clinical experience data

Clinical experience data encompasses data generated through any clinical use of the device that is not related to clinical investigation. This may include post-market surveillance reports, sales and complaints data, vigilance reports and clinically relevant field corrective safety actions (all part of post-market data, above), and other sources of clinical experience data.

Other sources of clinical experience data are often referred to as Real World Data (RWD) and may come from the following sources:

- Electronic Health Records (EHRs)
- claims and billing activities
- product and disease registries
- patient-generated data including in home-use settings
- data gathered from other sources that can inform on health status, such as mobile devices.

Real-world evidence (RWE) is the clinical evidence regarding the usage and potential benefits or risks of a medical product derived from analysis of RWD.

The FDA document titled Use of Real-World Evidence to Support Regulatory Decision-Making for Medical Devices provides further guidance. In some situations, RWD may be of sufficient quality to help inform the benefit-risk profile of devices at various points in their lifecycle and hence inform regulatory decisions.

Clinical experience data may be relevant and useful regardless of whether it is used as direct or indirect clinical evidence to demonstrate compliance with the EPs. However, as the time since first approval worldwide lengthens, the importance of direct device data increases.

Device registries

Device registries are systematic collections of data of medical outcomes following use of medical devices. They play a unique and important role in medical device surveillance. These can provide

TGA Approach to Clinical Evaluation

Legislative basis

- Robust validation of the device, **throughout its lifecycle** against the Essential Principles (EP)
  - EP 14: " Every medical device requires clinical evidence, appropriate for the use and classification of the device, demonstrating that the device complies with the applicable provisions of the essential principles."
  - Further details in Regulation 3.11 – Conformity Assessment procedures

- Not prescriptive about source

- Quality is key:
  - Power
  - End points
  - Control and confounders

Registries – the experience

- Post market review
  - Findings from registry can be investigated
  - Apply same principles of procedural fairness
- Pre market authorisation
  - Data from overseas registries

RWE – opportunities/ challenges

OPPORTUNITIES:

- Opportunities for data linkage
  - Electronic Health Records
  - Unique Device Identifier (UDI)
  - Digital and connected devices, including software
  - Innovative approached to data collection and statistical analysis
- New approaches to Post-market vigilance, including Post Market Clinical Follow-up (PMCF) studies

CHALLENGES:

- Challenge to make the connection
- Ethical/ privacy issues
- Who owns the data?

Untapped potential

- The data's there…
- Realistic about what can be achieved
- Hybrid study designs
- Incremental development?

- Can only comment on what we have seen…

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