About the Therapeutic Goods Administration (TGA)

- The Therapeutic Goods Administration (TGA) is part of the Australian Government Department of Health, and is responsible for regulating medicines and medical devices.

- The TGA administers the Therapeutic Goods Act 1989 (the Act), applying a risk management approach designed to ensure therapeutic goods supplied in Australia meet acceptable standards of quality, safety and efficacy (performance), when necessary.

- The work of the TGA is based on applying scientific and clinical expertise to decision-making, to ensure that the benefits to consumers outweigh any risks associated with the use of medicines and medical devices.

- The TGA relies on the public, healthcare professionals and industry to report problems with medicines or medical devices. TGA investigates reports received by it to determine any necessary regulatory action.

- To report a problem with a medicine or medical device, please see the information on the TGA website <https://www.tga.gov.au>.
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Foreword

The Therapeutic Goods Administration (TGA) is responsible for regulating medical devices in Australia, including monitoring the ongoing safety, performance and quality of devices once they have been included on the Australian Register of Therapeutic Goods (ARTG).

This report from the TGA’s Post-market Surveillance Branch includes an overview of the following aspects of post-market monitoring of medical devices in Australia:

- Medical devices adverse event reporting statistics for 2014
- The IRIS inSite pilot project
- How to report an adverse event involving a medical device
- Database of Adverse Event Notifications
- ‘Safety through reporting’ online learning modules developed for health professionals
- Post-market reviews
- Expert advisory committees
- Medical Devices Safety Update
- Product vigilance
Medical devices adverse event reporting statistics for 2014

The TGA’s Incident Report and Investigation Scheme (IRIS) commenced in 1986. Since its inception, the TGA has received more than 36,600 adverse event reports involving medical devices.

Figure 1: Origin of medical device adverse event reports received by the TGA (2010–14)

In 2014, the TGA received 4337 adverse event reports relating to medical devices. As shown in Figure 1, the vast majority of reports made in 2014 were by sponsors of medical devices. The number of reports made by sponsors continued a strong upward trend to a record high of 3697 reports in 2014 (85% of all reports), compared with 2456 reports in 2013. This increase was largely a result of greater awareness among device users that they should pass on reports to sponsors. The number of reports made by doctors decreased from 376 in 2013 to 115 in 2014 (3% of all reports). There was a spike in reports from doctors in 2012-13 due to issues with PIP breast implants. The number of reports from nurses and allied health professionals in 2014 increased compared with 2013. Allied health professionals provided 232 reports (5% of all reports), up from 158 reports the previous year, and nurses provided 167 reports (4%), up from 93. There was a decrease in reports from consumers with 122 reports (3%) in 2014, down from 178 reports in 2013.

It is important to note that it is mandatory under the Therapeutic Goods Act 1989 for sponsors and manufacturers to report adverse events that have led to or could have led to a death, serious illness or injury to a patient, person using the device or others. There are some exemptions under the Australian regulatory guidelines for medical devices (ARGMD). All other adverse event reports are submitted on a voluntary basis. The majority of reports submitted from allied health professionals are from hospital supply and administration areas. The remainder of the reports are submitted by a range of allied health professionals, including clinical technicians, pharmacists, biomedical engineers, ambulance officers, laboratory technicians and dentists.

The TGA encourages both users and health professionals to report any adverse event they encounter involving a medical device.
The IRIS inSite pilot project

In the second half of 2014 the TGA launched IRIS inSite, a pilot project to study how communicating directly with health professionals in a hospital setting can improve the rate and quality of medical device adverse event reporting.

Two ACT hospitals, the Canberra Hospital and National Capital Private Hospital, joined the IRIS inSite project, which seeks to remove barriers to adverse event reporting, improve awareness of reporting mechanisms among health professionals and cement ongoing links between the pilot sites and the TGA.

The TGA is working closely with both hospitals, running education sessions across key clinical units and raising awareness of what and how to report. By the end of 2014, more than 20 education sessions had been delivered.

As part of the project, presentations to health professionals reinforced the key messages of:

- 'Recognise’ (what is a medical device, what is a medical device event, how do I report)
- 'Retain' (keep the device and its packaging until you find out whether the TGA needs to examine it)
- 'Report' (you don't have to be certain, just suspicious).

The IRIS inSite pilot project will run until mid-2015, followed by a three-month evaluation period undertaken with a view to extending the service to other health facilities.

How to report an adverse event involving a medical device

The TGA encourages consumers and health professionals to report any adverse events associated with the use of a medical device.

Adverse events can involve actual harm to a patient or caregiver, or a near miss that may have resulted in harm. Some medical device issues that can lead to adverse events and initiate a report include:

- mechanical or material failure
- design issues
- labelling, packaging or manufacturing deficiencies
- software deficiencies
- device interactions
- user/systemic errors.

For further information about reporting suspected adverse events, visit the TGA website (click on 'Report a problem').
Database of Adverse Event Notifications

Information in the publicly searchable Database of Adverse Event Notifications (DAEN) comes from reports made to the TGA by a wide range of sources, including device sponsors, doctors, nurses, allied health professionals and members of the public. Reports in this database start from July 2012 up to three months prior to the date of access. The TGA uses this three-month period to investigate each adverse event report.

The DAEN, which was launched in 2012, was created to support better health outcomes by providing access to the information that the TGA gathers while monitoring medical devices safety in Australia.

‘Safety through reporting’ online learning modules developed for health professionals

The TGA and NPS MedicineWise worked together to create two interactive online learning modules designed to improve adverse event reporting by health professionals and these tools were launched in December.

The 'Safety through reporting' modules were developed to increase health professionals' existing knowledge around reporting adverse events associated with therapeutic products. Some of the key features include:

- the importance of reporting adverse events
- sharing the responsibility of reporting
- how to build reporting into practice
- what happens to reports once they are submitted to the TGA.

Health professionals who complete the modules are eligible for continuing professional development points from the relevant accrediting health professional bodies.
Post-market reviews

The TGA undertakes proactive post-market reviews on issues noted with medical devices included on the ARTG.

These issues are often derived from, but not limited to:

- adverse event reports
- repeated recall actions
- recurrent breaches of the Advertising Code
- findings of TGA laboratory testing (routine or as part of an investigation of an adverse event report).

Post-market reviews primarily focus on issues affecting a type of device, therefore all similar devices will be reviewed.

Other types of reviews may focus on a material or manufacturing process, or a manufacturer who supplies several sponsors with devices.

These reviews are conducted to determine if the devices continue to meet appropriate levels of safety and performance, and that the sponsor is complying with the conditions of inclusion on the ARTG following their supply in the Australian market.

This type of review can have several outcomes, such as requiring improvements in design, changes to the Instructions for Use, or suspension/removal of the device from the ARTG.

During 2014, the TGA completed post-market reviews on:

- blood glucose monitors
- endoscope processing
- first-aid sterility
- home-use blood pressure monitors
- tissue morcellators
- urogynaecological meshes.

More information regarding actions the TGA can take when post-market reviews identify safety concerns is contained within the ‘Product vigilance’ section later in this report.
Expert advisory committees

Advisory Committee on the Safety of Medical Devices
The Advisory Committee on the Safety of Medical Devices (ACSMD) advises and makes recommendations regarding the safety, risk assessment, risk management and performance of medical devices supplied in Australia.

The ACSMD met three times in 2014. ACSMD meeting statements are published on the TGA website.

Orthopaedic Subcommittee

The Orthopaedic Subcommittee (OSC) of the ACSMD was established in 2013, superseding the Orthopaedic Expert Working Group.

The OSC is a group of independent orthopaedic surgeons who provide expert advice to the ACSMD and the TGA on the safety, quality and performance of orthopaedic devices. In particular, the OSC provides advice in relation to orthopaedic implants that have been identified through the Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR) as experiencing higher-than-expected revision rates.

The subcommittee met three times in 2014.
Medical Devices Safety Update

Medical Devices Safety Update provides health professionals with practical information and advice on medical device safety.

Six issues were published in 2014 and included articles on the following topics:

- A review into urogynaecological surgical mesh implants
- National Joint Replacement Registry data regarding orthopaedic implants
- A warning regarding incidents relating to use of walking frames as wheelchairs
- The risk of electric shock during defibrillator checks
- Endoscope reprocessing procedures
- Safe use of slings and patient lifters
- Reducing the risks associated with infusion pumps
- Issues with Accu-Chek Multiclix
- Issues with introducers/bougies
- How health professionals can contribute to the regulation of medical devices
- User errors and alarm hazards
- Issues with BD 50 ml Plastipak syringes
- TGA testing of ultrasound transmission gels for bacterial contamination
- The System for Australian Recall Actions (SARA)
- Flame dangers while using oxygen concentrators
- A review of surgical gauze with X-ray detectable strips
- Assessing accuracy and predictive value in testing
- Alarm problems named as a top health technology hazard
- Strategies for preventing intravenous and epidural misconnections
- Issues with Speedstitch suturing devices.
Product vigilance

The TGA applies a risk management approach to ensure therapeutic goods supplied in Australia meet acceptable standards of quality, safety and efficacy (performance). Once a therapeutic product is approved, the TGA continues to monitor the product in the market through therapeutic product vigilance activities.

The aim of therapeutic product vigilance is to continually monitor and evaluate the safety and performance profile of therapeutic goods and to manage any risks associated with individual products over their life cycle. The TGA’s therapeutic product vigilance framework is available on the TGA website at Therapeutic product vigilance.

The maintenance and improvement of health and safety is a shared responsibility. In addition to government and regulated industry, health professionals, consumers and their respective associations play an important role in reporting therapeutic product safety related issues.

Sponsors have the primary responsibility for the safety of any therapeutic products they import into, supply in or export from Australia. Sponsors must comply with legislative requirements for therapeutic product vigilance under the Therapeutic Goods Act 1989 (the Act) and there are applicable offences and penalties under the Act for not complying. The legislative requirements for therapeutic product vigilance vary depending on the type of therapeutic good.

The TGA maintains up-to-date safety information on therapeutic products that is communicated through a variety of means to consumers and health professionals. The TGA is committed to advancing public health through market authorisation of beneficial, innovative therapeutic goods and by providing timely, evidence-based and authoritative information to allow consumers and health professionals to make informed decisions.

The TGA defines therapeutic product vigilance tools as tools designed to facilitate the collection and evaluation of information pertaining to the benefits and risks associated with the use of therapeutic products. The main product vigilance tools used by the Post-market Surveillance Branch in relation to medical devices are analysis of adverse event reports, annual reports for high-risk devices, and ‘environmental scanning’ of scientific and medical literature, media and other sources.

Actions the TGA can take in response to an identified safety concern include:

- informing health professionals and consumers via safety alerts, Early Warning System monitoring communications and Medical Devices Safety Update
- requiring the sponsor to undertake product improvement
- requiring changes to the Instructions for Use
- requiring compliance testing
- requiring user education
- recalling products from the market
- suspending or cancelling products.

When a product is cancelled, details are published on the TGA website. The TGA may also exchange information relating to significant safety issues with other regulatory agencies. This is done via the National Competent Authority Reporting program. Information is exchanged on adverse events where corrective action, including recalls, is to be taken and there is a serious risk to the safety of patients and other users.
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