Safer Care Victoria

# Supporting patient safety

Sentinel Event Program triennial report 2013 to 2016

VICTORIA State Government

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Safer Care Victoria

# Contents

# Acknowledgements

The Sentinel Event Program thanks the public health services, hospitals and participating private facilities in Victoria for their ongoing contribution to the program. The Sentinel Event Program also acknowledges the patients and their families and carers who have experienced adverse outcomes while receiving care in the Victorian health system.

The Sentinel Event Program also thanks the Clinical Incident Review Panel, consultative councils and expert advisory groups for providing invaluable advice on recommendations to improve safety and quality of healthcare in Victoria.

# Preface

The recently published *Report of the Review of Hospital Safety and Quality Assurance in Victoria*, led by Professor Stephen Duckett, provided a detailed and extensive analysis into how the Department of Health and Human Services ('the department') oversees and supports quality and safety of healthcare services in Victoria.

The review outlined a suite of recommendations that are aimed at strengthening our healthcare system to deliver consistently safe and high-quality care. These recommendations include structural reforms involving the establishment of new organisations to simplify the current system and better respond to the needs of patients and healthcare workers.

Established on 1 January 2017, Safer Care Victoria will work with health services to monitor and improve the quality and safety of care delivered across our health system, with the goal of achieving zero avoidable harm. Safer Care Victoria is working towards implementing the recommendations of the review, including those relating to the Sentinel Event Program, beginning with the publication of this triennial report.

This is the 11th public report of the Sentinel Event Program and the first published by Safer Care Victoria. It presents information on the 143 sentinel events reported to the department between 2013 and 2016. The purpose of this report is to share information about sentinel events across the sector to promote statewide learnings and support health services to improve the safety of care they provide.

Euan M. Wallace
CEO, Safer Care Victoria

# Executive summary

Sentinel events are relatively infrequent adverse events that result in harm to patients and occur as a result of system or process issues. The Sentinel Event Program supports the notification, investigation and review of sentinel events to share knowledge across the sector and promote system improvement.

There were 143 sentinel events reported to the program between 2013 and 2016. There have been no significant trends in the number of events reported over the past five years. The most frequently reported sentinel event categories were 'other catastrophic: incident severity rating 1 (ISR 1)', 'suicide in an inpatient unit' and 'retained instrument or other surgical material requiring re-operation'. The most frequently reported sub-categories for events reported as 'other catastrophic: incident severity rating 1 (ISR 1)' were 'inpatient fall resulting in death', 'hospital process' and 'mental health management'. Between 2013 and 2016, the most frequently identified contributing factor for sentinel events related to procedures/guidelines, communication and human resources.

The key conclusions of this triennial report are:

1. The number of sentinel events reported by Victoria public health services and participating private hospitals is less than expected when compared with other jurisdictions.
2. The collection of information during the review of sentinel events is often insufficient to inform future practice. This hampers the ability of Safer Care Victoria to identify trends and support health services in patient safety improvement.
3. Sentinel events involving retained instruments or other material continue to occur despite the availability of system improvement initiatives (for example, the surgical safety checklist).

Recommendations to address the above findings are:

1. Auditing the Victorian Admitted Episodes Dataset to identify potential sentinel events that have not been voluntarily reported.
2. Commissioning revised sentinel event notification and reporting tools to better understand the context and circumstances in which sentinel events occur and support health services with the implementation of safety improvement initiatives.
3. Conducting an in-depth thematic analysis of root cause analysis reports for sentinel events reported as 'retained instrument or other material category' to identify common themes and formulate state-wide activities for improvement.

# Background

## Reporting sentinel events

Public hospitals in Victoria are required to report sentinel events to Safer Care Victoria (previously to the department) within three days of the event occurring. There are eight nationally defined sentinel event categories and one Victorian-only category. These are:

- procedures involving the wrong patient or body part resulting in death or major permanent loss of function
- suicide in an inpatient unit
- retained instruments or other material after surgery requiring re-operation or further surgical procedure
- intravascular gas embolism resulting in death or neurological damage
- haemolytic blood transfusion reaction resulting from ABO incompatibility
- medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs
- maternal death or serious morbidity associated with labour or delivery
- infant discharged to the wrong family
- other catastrophic: incident severity rating (ISR) 1 (Victorian only) (see Appendix 1).

The Australian Council for Safety and Quality in Health Care is currently reviewing the national sentinel event categories in collaboration with all jurisdictions. A revised list of national sentinel event categories is expected in 2017–18.

## Root cause analysis

Health services are required to investigate sentinel events using a root cause analysis methodology. Root cause analysis is an investigation technique that enables health services to determine what happened, how and why the incident occurred, and what can be done to prevent the incident from occurring again. A root cause analysis investigation is usually conducted only for high-risk, high-impact incidents such as sentinel events or incidents that are allocated an ISR 1. The key principles of a root cause analysis investigation are to:

- focus on systems and process failures rather than individual performance
- be thorough, fair, efficient and independent
- focus on problem solving
- use recognised analytical methods
- develop recommendations to reduce the likelihood of recurrence.

A de-identified root cause analysis report is provided by health services to the department within 60 days of the sentinel event notification. The report includes:

- an executive summary, conclusions and recommendations arising from the investigation
- a timeline of the sentinel event
- a cause-and-effect chart
- a risk-reduction action plan that includes a description of
  - the risk
  - what action is to be taken to mitigate the risk
  - who is accountable for the action
  - when the action is to be completed.

The template for reporting root cause analysis reports was last revised in 2013–14 and collects minimal data on sentinel events and promotes discursive rather than systematic and detailed descriptions of the event, root causes and recommendations to prevent future harm.

## Review of root cause analysis reports

The Clinical Incident Review Panel (CIRP) was a departmental committee responsible for reviewing root cause analysis reports submitted by health services. The department has since dissolved CIRP as recommended in the *Report of the Review of Hospital Safety and Quality Assurance in Victoria*, with functions absorbed by both the department and Safer Care Victoria. Establishing a transparent and robust process for the review of the quality and findings of root cause analysis reports including and sharing learnings across the health system has been identified as a key priority for Safer Care Victoria.

## Open disclosure

Open disclosure is essential following a sentinel event and involves an open discussion with the patient, their family and carers and is a legal requirement under the *Victorian Charter of Human Rights and Responsibilities Act 2006*. Open disclosure is:

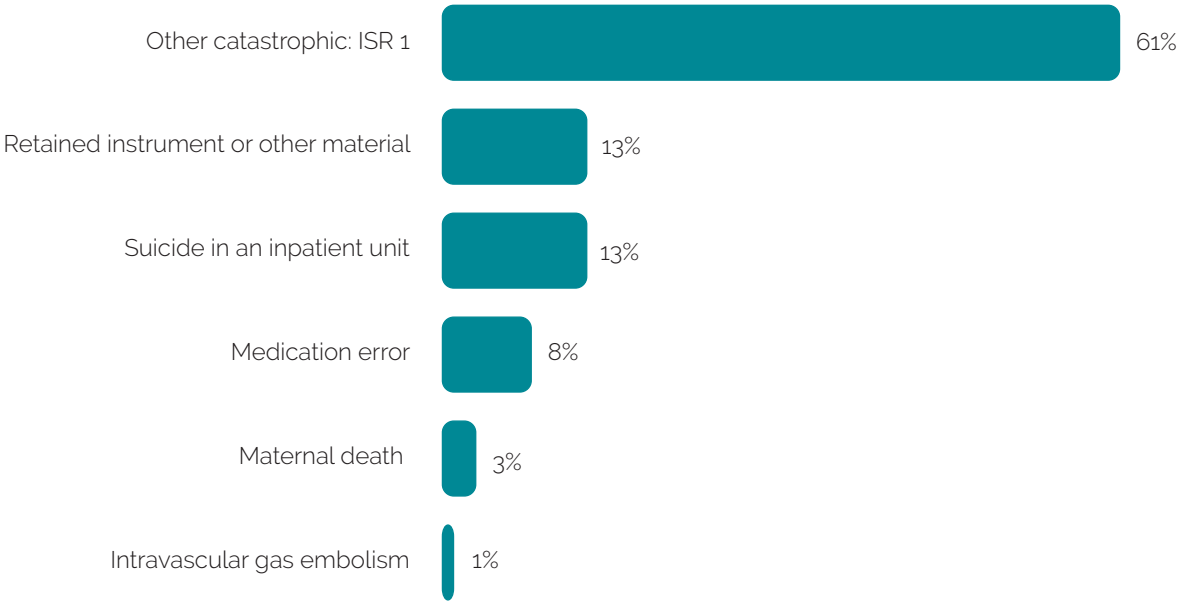
- a patient and consumer right
- a core professional requirement and organisational obligation
- a critical element of care and clinical communication when adverse events occur
- an attribute of high-quality health services and an important part of quality improvement.

The open disclosure process also supports staff, rather than apportioning blame, so that health professionals respond effectively, learn from clinical incidents and improve the quality and safety of patient care. Effective open disclosure can also reduce litigation after a sentinel event. The *Australian open disclosure framework*, endorsed by the Australian Commission on Safety and Quality in Health Care, provides a nationally consistent approach to communication following unexpected healthcare outcomes.

# Sentinel event data 2013–16

The Sentinel Event Program ('the program') was notified of 143 sentinel events in Victorian public hospitals and participating private facilities between 2013 and 2016. The most frequently reported sentinel event categories were 'other catastrophic: incident severity rating 1 (ISR 1)' (61 per cent), 'suicide in an inpatient unit' (13 per cent) and 'retained instrument or other surgical material' (13 per cent). There were no events reported under the sentinel event categories 'procedures involving wrong patient or body part', 'haemolytic blood transfusion reaction' or 'infant discharged to the wrong family' in any year. Figure 1 shows all sentinel events notified between 2013 and 2016 by sentinel event category (excluding categories where no events were reported). Table 1 shows sentinel events reported between 2013 and 2016 by sentinel event category.

**Figure 1: Sentinel events notified between 2013 and 2016 by sentinel event category**




Note: Source data are available in Table 1.

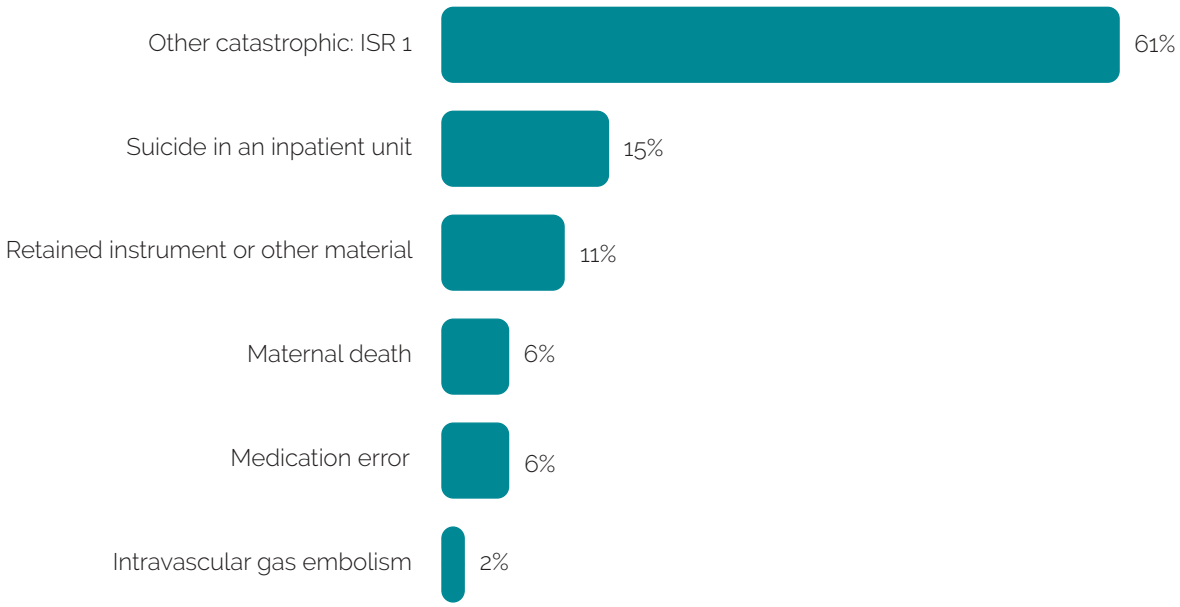
### Table 1: Sentinel events reported between 2013 and 2016 by sentinel event category

| | 2013–14 | 2014–15 | 2015–16 | Total |
|---|---|---|---|---|
| Procedures involving the wrong patient or body part resulting in death or permanent loss of function | 0 | 0 | 0 | 0 |
| Suicide in an inpatient unit | 8 | 4 | 7 | 19 |
| Retained instrument or other material after surgery requiring reoperation or further surgical procedure | 6 | 6 | 7 | 19 |
| Intravascular gas embolism resulting in death or neurological damage | 1 | 0 | 1 | 2 |
| Haemolytic blood transfusion reaction resulting from ABO incompatibility | 0 | 0 | 0 | 0 |
| Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs | 3 | 7 | 1 | 11 |
| Maternal death or serious morbidity associated with labour or delivery | 3 | 2 | 0 | 5 |
| Infant discharged to the wrong family | 0 | 0 | 0 | 0 |
| Other catastrophic: incident severity rating 1 (ISR 1) | 33 | 23 | 31 | 87 |
| **Total** | **54** | **42** | **47** | **143** |

## 2013–14 results

There were 54 sentinel event notifications in 2013–14 by Victorian public hospitals and participating private facilities. The most frequently reported sentinel event categories in this year were 'other catastrophic: incident severity rating 1 (ISR 1)' (61 per cent), 'suicide in an inpatient unit' (15 per cent) and 'retained instrument or other surgical material' (11 per cent). Figure 2 shows all sentinel events notified in 2013–14 by sentinel event category (excluding categories where no events were reported).

**Figure 2: Sentinel events notified in 2013–14 by sentinel event category**

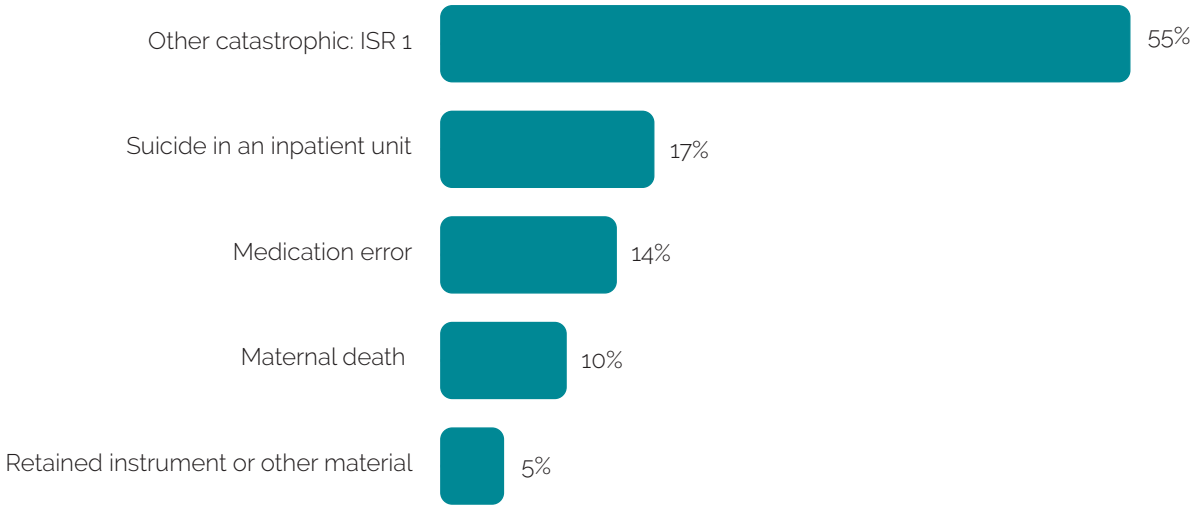



Note: Source data are available in Table 1.

## 2014–15 results

There were 42 sentinel event notifications in 2014–15 by Victorian public hospitals and participating private facilities. The most frequently reported sentinel event categories in this year were 'other catastrophic: incident severity rating 1 (ISR 1)' (55 per cent), 'medication error leading to death' (17 per cent) and 'retained instrument or other surgical material' (14 per cent). Figure 3 shows all sentinel events notified in 2014–15 by sentinel event category (excluding categories where no events were reported).

### Figure 3: Sentinel events notified in 2014–15 by sentinel event category

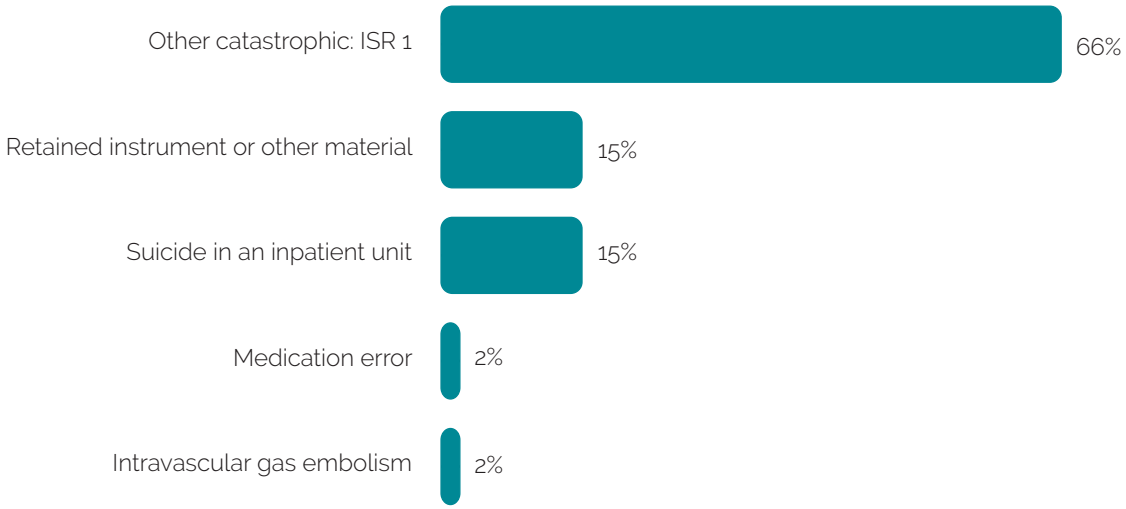



Note: Source data are available in Table 1.

## 2015–16 results

There were 47 sentinel event notifications in 2015–16 by Victorian public hospitals and participating private facilities. The most frequently reported sentinel event categories in this year were 'other catastrophic: incident severity rating 1 (ISR 1)' (66 per cent), 'suicide in an inpatient unit' (15 per cent) and 'retained instrument or other surgical material' (15 per cent). Figure 4 shows all sentinel events notified in 2015–16 by sentinel event category (excluding categories where no events were reported).

**Figure 4: Sentinel events notified in 2015–16 by sentinel event category**




Note: Source data are available in Table 1.

When compared with data from the previous ten years, there have been no significant trends in the number of sentinel events reported under each category for the years 2013–14, 2014–15 and 2015–16.

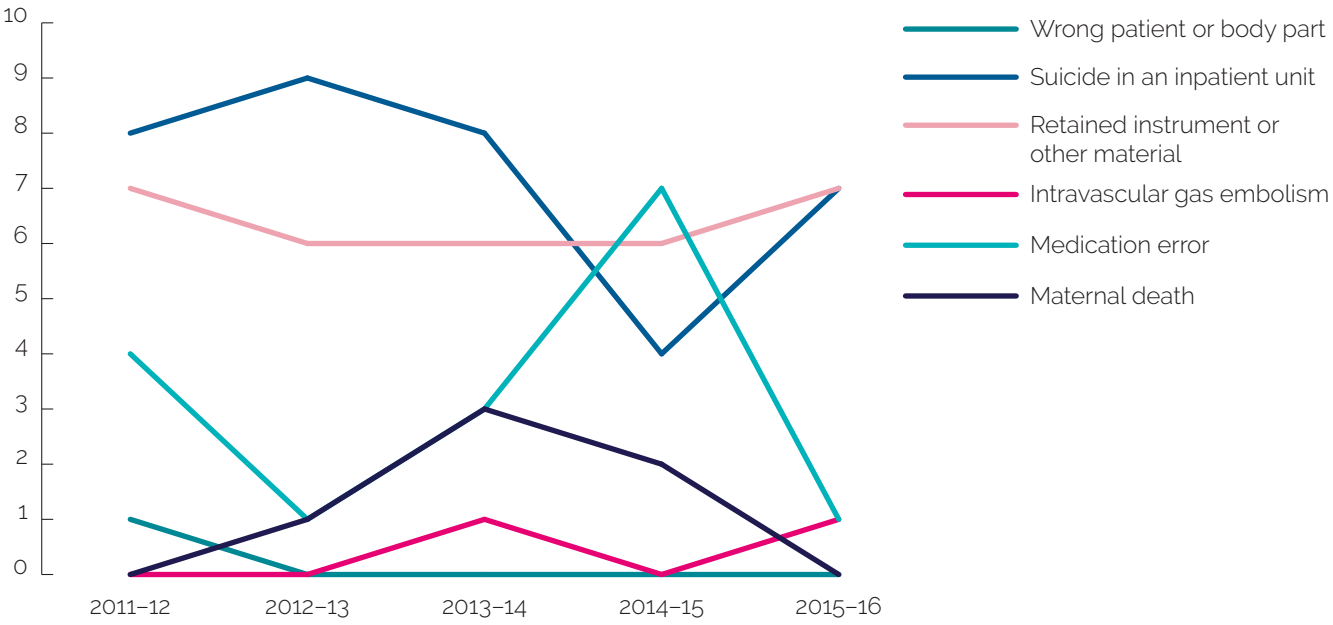
There was an increase in the number of sentinel events reported as 'medication errors leading to death' in 2014–15, with a decline in the subsequent year. The cause of this peak in the number of sentinel events involving medication errors is unknown.

There has also been a decline in the number of haemolytic blood transfusion reactions reported to the program, with four events reported in 2011–12 and no events reported from 2013–14 until present.

Figure 5 shows sentinel events reported in the five-year period from 2011–12 to 2015–16 by sentinel event category, excluding events reported as 'other catastrophic: incident severity rating 1 (ISR 1)'. Table 2 shows sentinel events reported between 2011–12 and 2015–16 by sentinel event category.

When compared with other jurisdictions of Australia, there is potential under-reporting of sentinel events by Victorian public hospitals. During 2014–15, there were 53 sentinel events reported in New South Wales for approximately 1.8 million separations[1]. However, only 19 sentinel events (excluding 23 events reported under the Victoria only category 'other catastrophic: incident severity rating 1') were reported by Victorian public hospitals for approximately 1.6 million separations[1]. This difference in notifications between jurisdictions with comparable annual public hospital separations suggests potential under-reporting of sentinel events in Victoria.

**Figure 5: Sentinel events reported between 2011–12 and 2015–16 by sentinel event category (excluding events reported as 'other catastrophic: incident severity rating 1 (ISR 1)')**




Note: Source data are available in Table 2.

1 Steering Committee for the Review of Government Service Provision 2017, *Report on Government Services 2017*, vol. E, *Health*, Productivity Commission, Canberra.

## Table 2: Sentinel events reported between 2011–12 and 2015–16 by sentinel event category

| | 2011–12 | 2012–13 | 2013–14 | 2014–15 | 2015–16 |
|---|---|---|---|---|---|
| Procedures involving the wrong patient or body part resulting in death or permanent loss of function | 1 | 0 | 0 | 0 | 0 |
| Suicide in an inpatient unit | 8 | 9 | 8 | 4 | 7 |
| Retained instrument or other material after surgery requiring reoperation or further surgical procedure | 7 | 6 | 6 | 6 | 7 |
| Intravascular gas embolism resulting in death or neurological damage | 0 | 0 | 1 | 0 | 1 |
| Haemolytic blood transfusion reaction resulting from ABO incompatibility | 0 | 0 | 0 | 0 | 0 |
| Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs | 4 | 1 | 3 | 7 | 1 |
| Maternal death or serious morbidity associated with labour or delivery | 0 | 1 | 3 | 2 | 0 |
| Infant discharged to the wrong family | 0 | 0 | 0 | 0 | 0 |
| Other catastrophic: incident severity rating 1 (ISR 1) | 21 | 17 | 33 | 23 | 31 |
| **Total** | **41** | **34** | **54** | **42** | **47** |

## Other catastrophic: incident severity rating 1

Sentinel events reported under the Victorian-only sentinel event category 'other catastrophic: incident severity rating 1 (ISR 1)' are further classified according to the following sub-categories:

- complication of emergency management
- complication of surgical management
- complication of anaesthetic management
- fetal complication of delivery
- inpatient fall resulting in death
- inpatient fall not resulting in death
- misdiagnosis and subsequent management
- miscommunication or misreporting of test results
- wrong patient or body part resulting in minimal harm
- medication error not resulting in death
- mental health management
- abscond from inpatient unit
- infection control
- hospital process
- other.

In some cases, sentinel events can be classified according to multiple sub-categories.

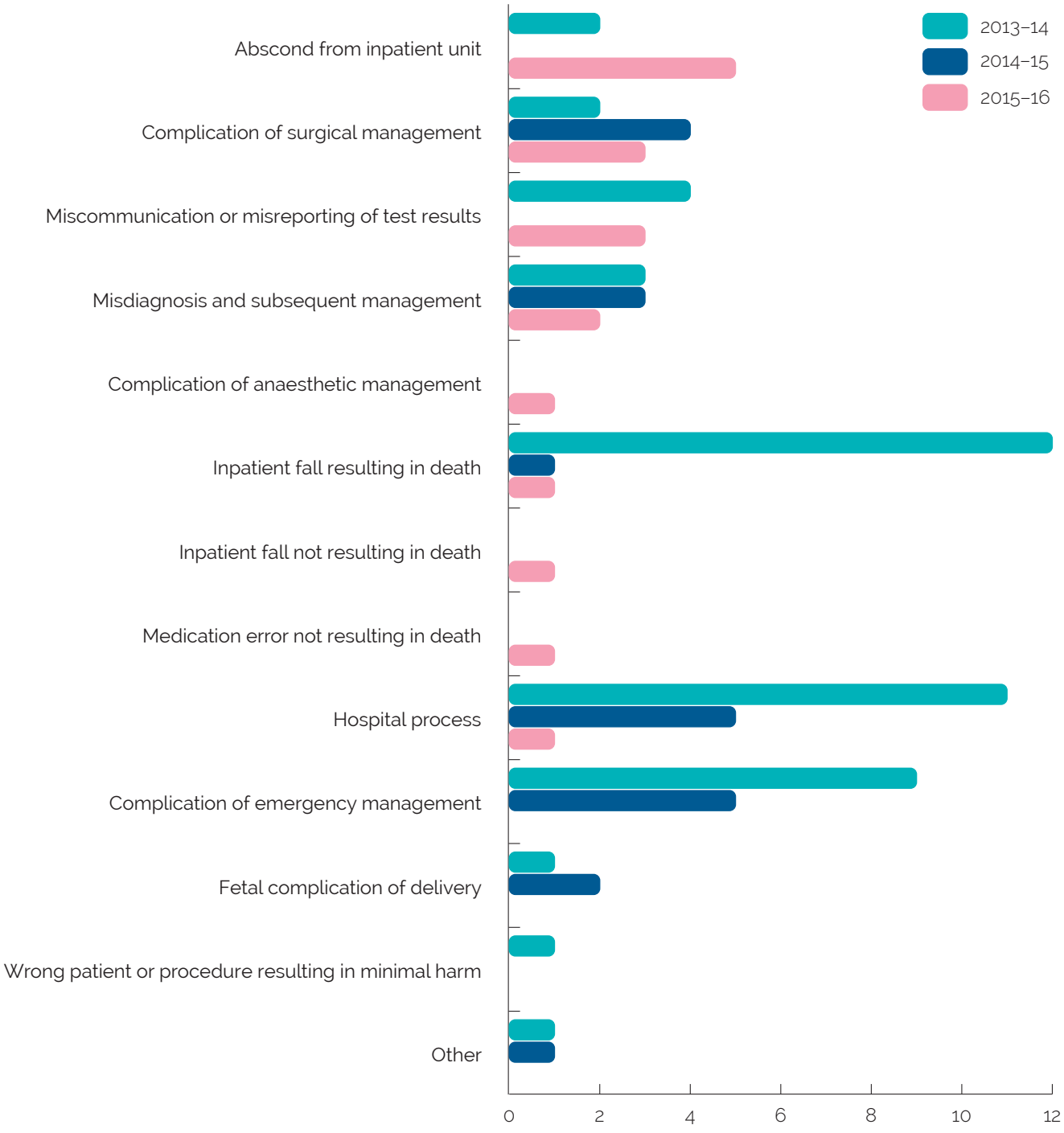
Between 2013 and 2016, the most frequently reported sub-categories were 'hospital process' (17 per cent), 'mental health management' (17 per cent), 'inpatient fall resulting in death' (14 per cent), 'complication of emergency management' (14 per cent) and 'complication of surgical management' (9 per cent). Figure 6 shows sentinel events reported between 2013 and 2016 as 'other catastrophic: incident severity rating 1 (ISR 1)' by sub-category.

In 2013–14 the most frequently reported sub-category was 'inpatient fall resulting in death', accounting for 24 per cent of sentinel events reported as 'other catastrophic: incident severity rating 1 (ISR 1)'. There was a 20 per cent decrease in the number of events involving death as a result of falls for the following years.

'Other catastrophic: incident severity rating 1 (ISR 1)' events sub-categorised as 'hospital process' and 'complication of emergency management' were most frequently reported in 2014–15. Examples of 'hospital process' issues include delayed access.

In 2015–16 the most frequently reported sub-category was 'mental health management', which includes suicides not captured under the 'suicide in an inpatient unit' sentinel event category.

## Figure 6: Sentinel events reported between 2013 and 2016 as 'other catastrophic: incident severity rating 1 (ISR 1)' by sub-category



## Contributing factors

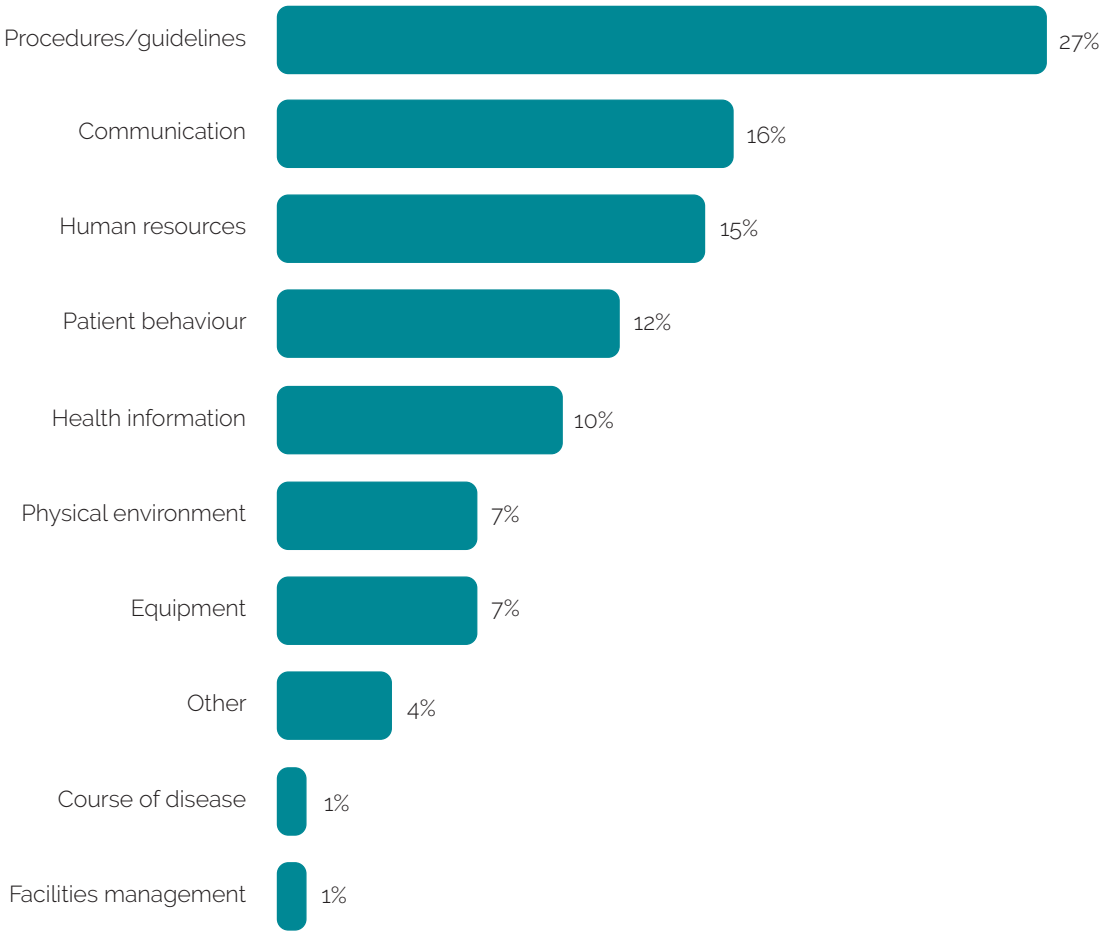
In addition to root causes, there are often several factors that contribute to a sentinel event that are commonly identified in an investigation. Contributing factors may include:

- **procedures/guidelines** including the availability, currency of and compliance with the clinical guidelines that govern behavioural and physical assessment, patient observation, patient/site identification and coordination of care
- **human resources** including staff allocation, skill mix, training, supervision, appraisal and recruitment
- **communication** between staff, patients, families/carers and translation services
- **health information** including documentation in medical records, timeliness of diagnostic reports and communication with external providers
- **equipment** including availability, appropriateness, maintenance and functionality of patient assessment, diagnostic or other medical equipment (such as infusion pumps)
- **physical environment** including environmental distractions, suitability of workplace design and security concerns
- **facilities management** including intra- and inter-hospital patient transfer and transport issues
- **patient behaviour** including patient actions, omissions, preferences and individual choices
- **course of disease** including deteriorating physical or mental health and complications of a procedure or intervention
- **other** including workplace culture and normalisation of deviated practice.

In many cases, multiple contributing factors can be identified for each sentinel event.

Between 2013 and 2016, a total of 295 contributing factors were identified for sentinel events reported to the program. The most frequently identified contributing factors were procedures/guidelines (27 per cent), communication (16 per cent) and human resources (15 per cent). Figure 7 shows contributing factors for sentinel events reported between 2013 and 2016. Table 3 shows contributing factors for sentinel events reported between 2013 and 2016 (excluding categories where no events were reported). Figure 8 shows sentinel events reported between 2013 and 2016 by sentinel event category (excluding categories where no events were reported).

## Figure 7: Contributing factors for sentinel events reported between 2013 and 2016

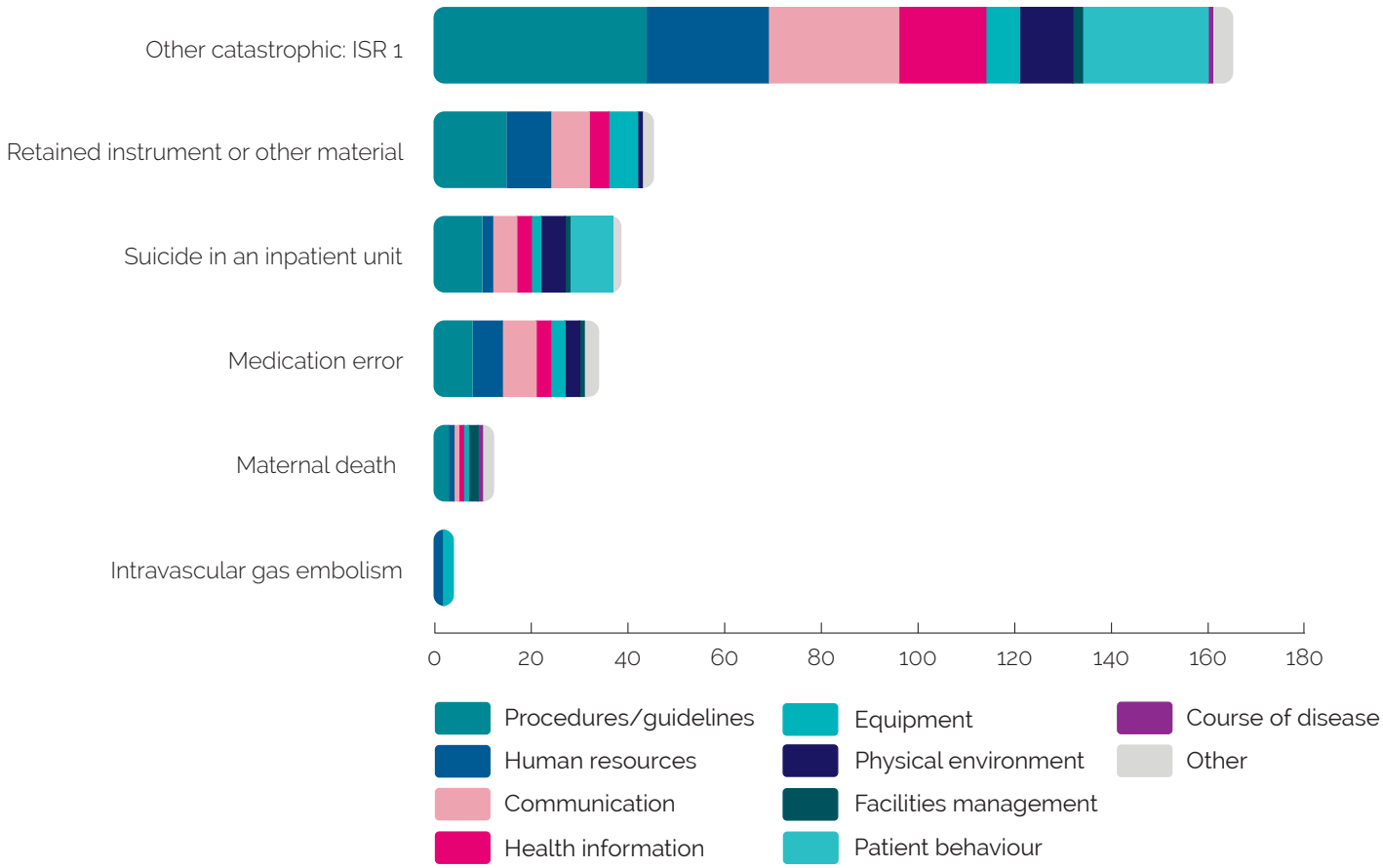



Note: Source data are available in Table 3.

### Table 3: Contributing factors for sentinel events reported between 2013 and 2016

| | 2013–14 | 2014–15 | 2015–16 | Total |
|---|---|---|---|---|
| Procedures/guidelines | 36 | 12 | 32 | 80 |
| Human resources | 8 | 27 | 9 | 44 |
| Communication | 8 | 21 | 19 | 48 |
| Health information | 3 | 12 | 14 | 29 |
| Equipment | 9 | 3 | 9 | 21 |
| Physical environment | 8 | 3 | 9 | 20 |
| Facilities management | 1 | 1 | 2 | 4 |
| Patient behaviour | 1 | 20 | 14 | 35 |
| Course of disease | 0 | 2 | 0 | 2 |
| Other | 3 | 9 | 0 | 12 |
| **Total** | **77** | **110** | **108** | **295** |

## Figure 8: Contributing factors for sentinel events reported between 2013 and 2016 by sentinel event category (excluding categories where no events were reported)




Note: Source data are available in Table 4.

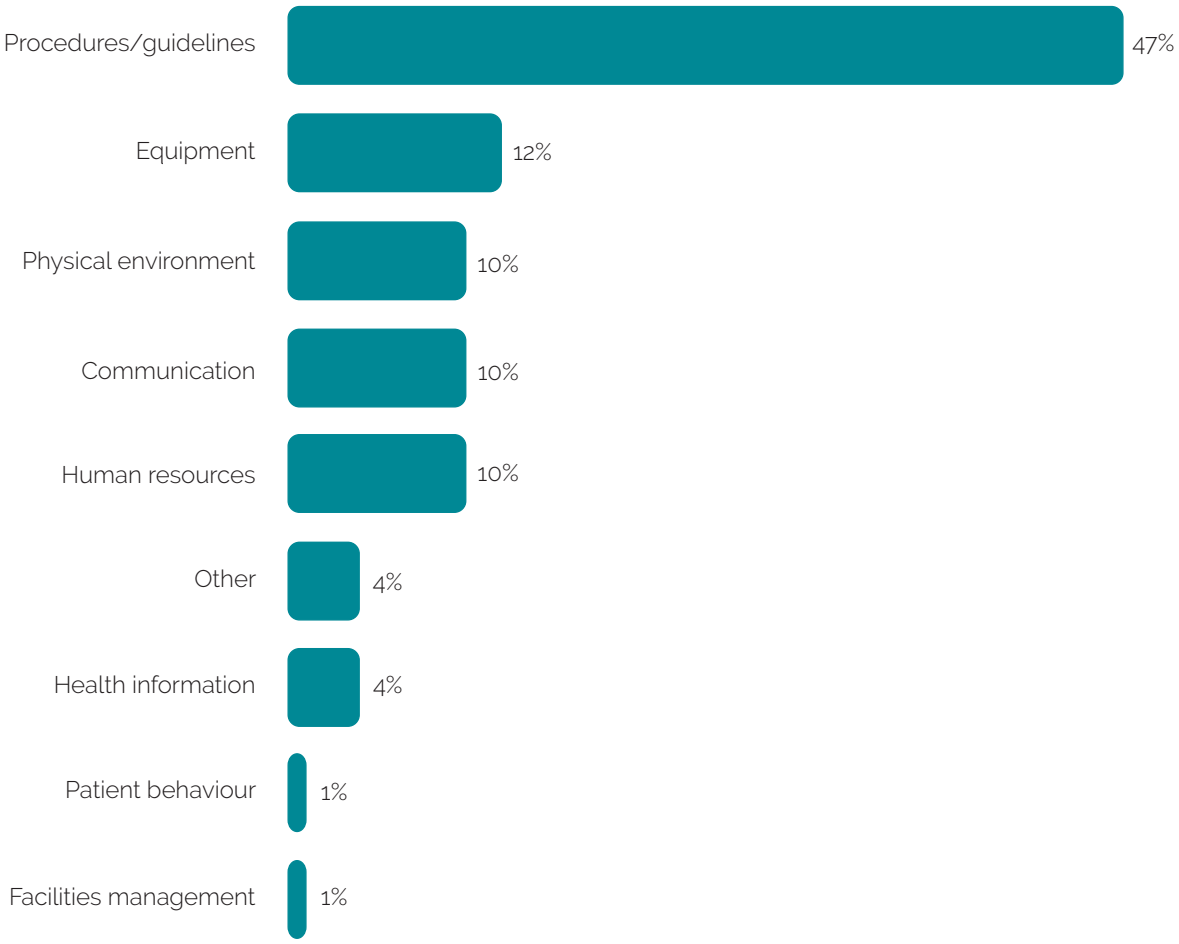
### Table 4: Contributing factors for sentinel events reported between 2013 and 2016 by sentinel event category (excluding categories where no events were reported)

| | Procedures/guidelines | Human resources | Communication | Health information | Equipment | Physical environment | Facilities management | Patient behaviour | Course of disease | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Suicide in an inpatient unit | 10 | 2 | 5 | 3 | 2 | 5 | 1 | 9 | 0 | 1 | 38 |
| Retained instrument or other material after surgery requiring reoperation or further surgical procedure | 15 | 9 | 8 | 4 | 6 | 1 | 0 | 0 | 0 | 2 | 45 |
| Intravascular gas embolism resulting in death or neurological damage | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs | 8 | 6 | 7 | 3 | 3 | 3 | 1 | 0 | 0 | 3 | 34 |
| Maternal death or serious morbidity associated with labour or delivery | 3 | 1 | 1 | 1 | 1 | 0 | 2 | 0 | 1 | 2 | 10 |
| Other catastrophic: incident severity rating 1 (ISR 1) | 44 | 25 | 27 | 18 | 7 | 11 | 2 | 26 | 1 | 4 | 165 |
| **Total** | **80** | **44** | **48** | **29** | **21** | **20** | **4** | **35** | **2** | **12** | **295** |

In 2013–14, 77 contributing factors were identified for sentinel events reported to the program.

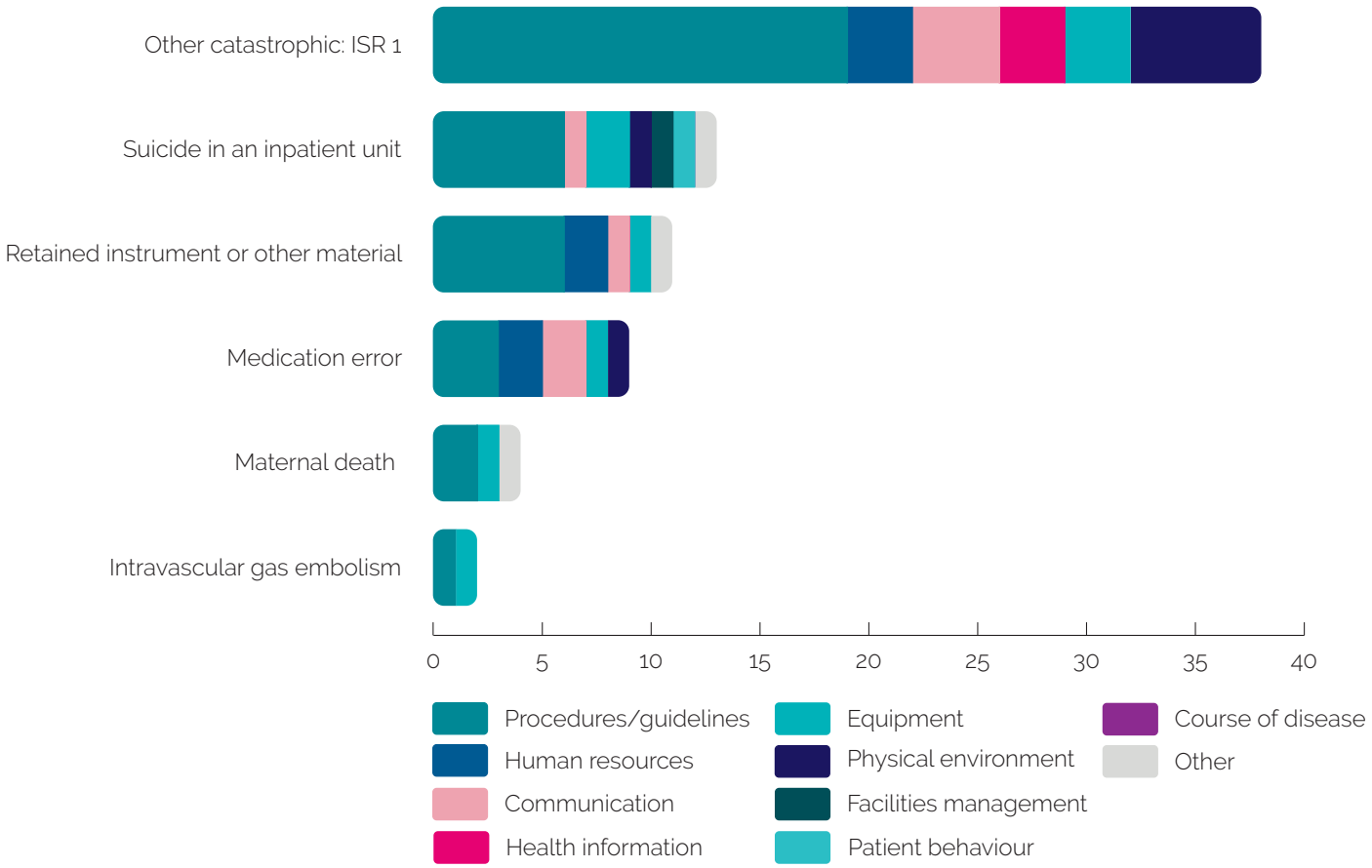
The most frequently identified contributing factors for sentinel events reported this year were procedures/guidelines (47 per cent), equipment (12 per cent), physical environment (10 per cent), communication (10 per cent) and human resources (10 per cent). When compared with sentinel event categories, procedures/guidelines was the most common contributing factor in all events except those reported as 'intravascular gas embolism'. Figure 9 shows contributing factors for sentinel events reported in 2013–14. Figure 10 shows contributing factors for sentinel events reported in 2013–14 by sentinel event category (excluding categories where no events were reported). Table 5 shows contributing factors for sentinel events reported in 2013–14 by sentinel event category (excluding categories where no events were reported).

### Figure 9: Contributing factors for sentinel events reported in 2013–14




Note: Source data are available in Table 3.

## Figure 10: Contributing factors for sentinel events reported in 2013–14 by sentinel event category (excluding categories where no events were reported)



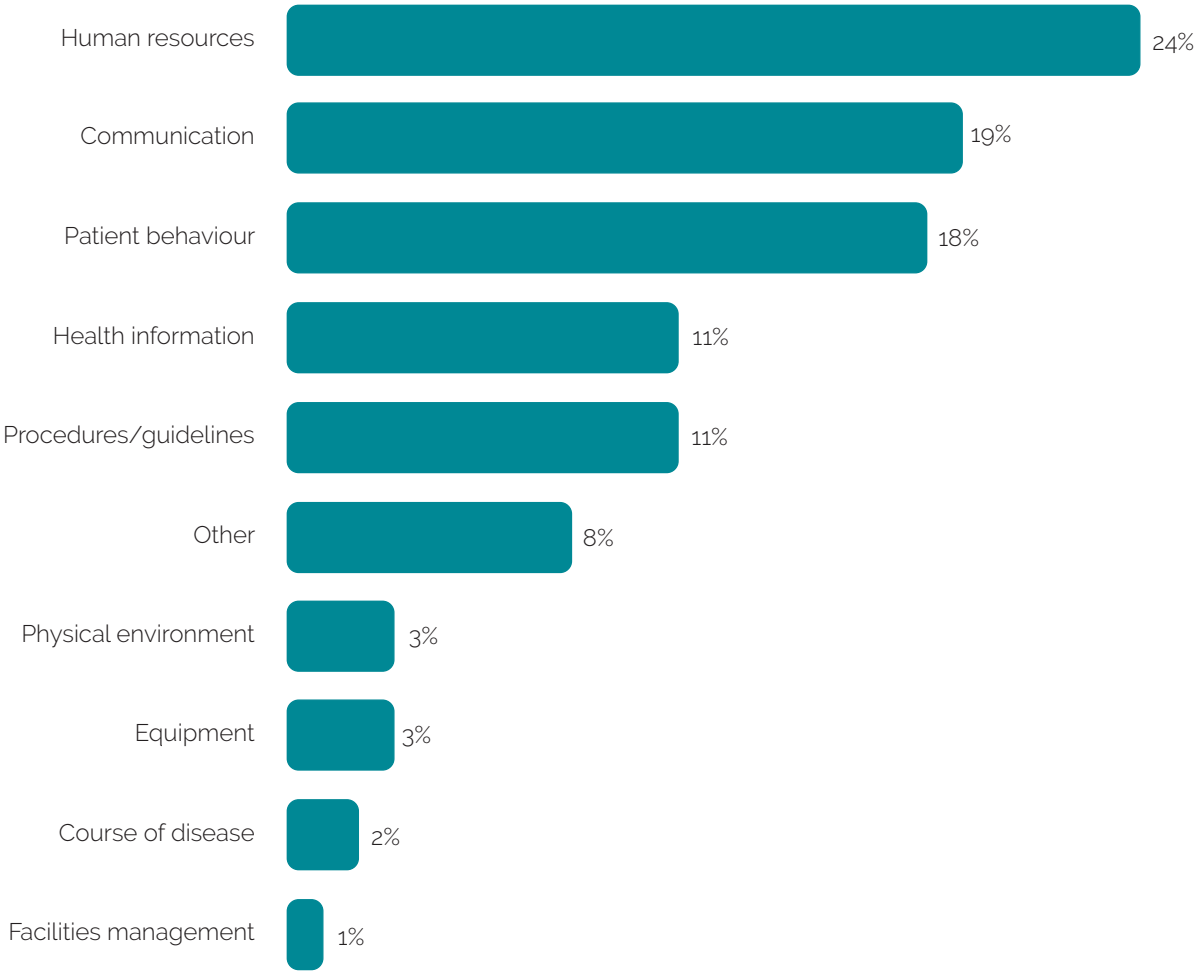

Note: Source data are available in Table 5.

## Table 5: Contributing factors for sentinel events reported in 2013–14 by sentinel event category (excluding categories where no events were reported)

| | Procedures/guidelines | Human resources | Communication | Health information | Equipment | Physical environment | Facilities management | Patient behaviour | Course of disease | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Suicide in an inpatient unit | 6 | 0 | 1 | 0 | 2 | 1 | 1 | 1 | 0 | 1 | 13 |
| Retained instrument or other material after surgery requiring reoperation or further surgical procedure | 6 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 11 |
| Intravascular gas embolism resulting in death or neurological damage | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs | 3 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 9 |
| Maternal death or serious morbidity associated with labour or delivery | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 4 |
| Other catastrophic: incident severity rating 1 (ISR 1) | 19 | 3 | 4 | 3 | 3 | 6 | 0 | 0 | 0 | 0 | 38 |
| **Total** | **36** | **8** | **8** | **3** | **9** | **8** | **1** | **1** | **0** | **3** | **77** |

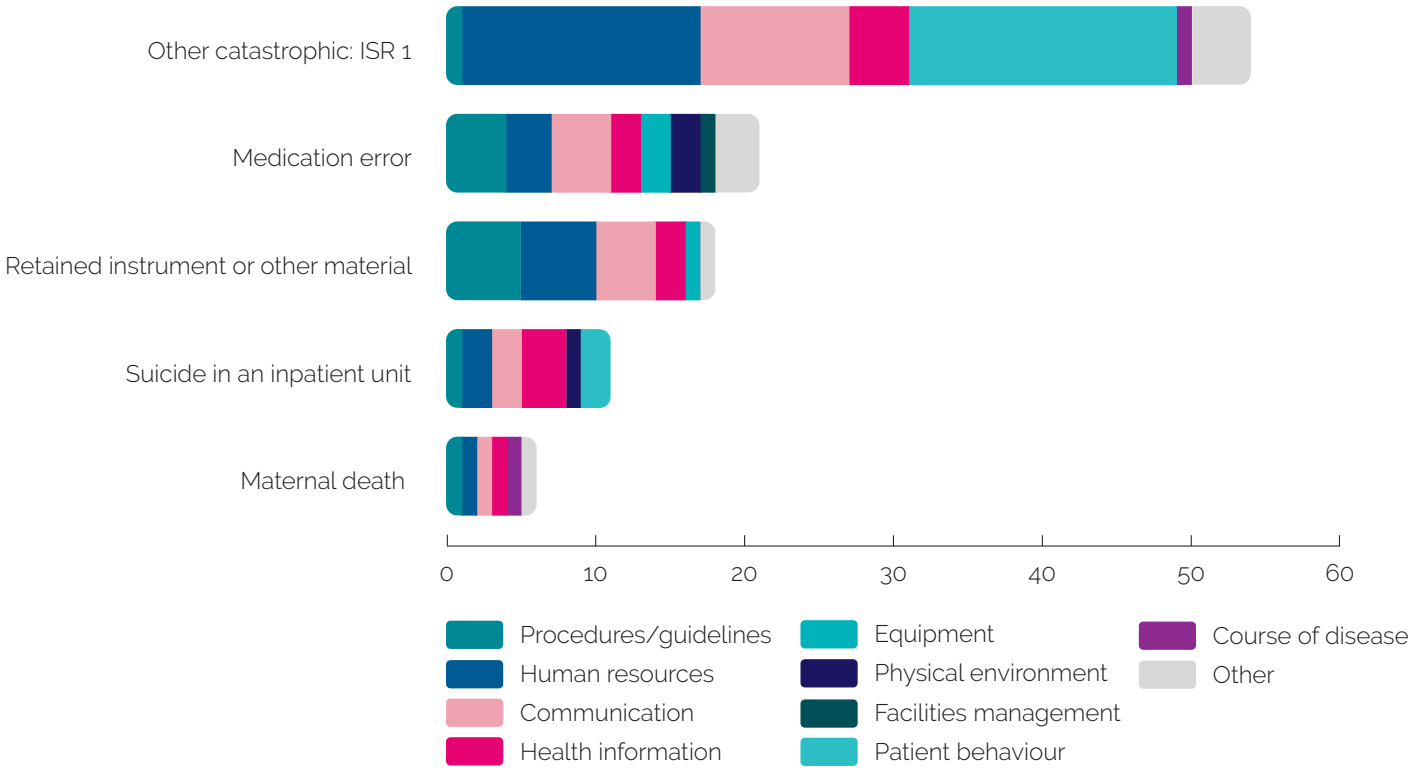
In 2014–15, 110 contributing factors were identified for sentinel events reported to the program. The most frequently identified contributing factors for sentinel events reported this year were human resources (24 per cent), communication (19 per cent) and patient behaviour (18 per cent). Figure 11 shows contributing factors for sentinel events reported in 2014–15. Figure 12 shows contributing factors for sentinel events reported in 2014–15 by sentinel event category (excluding categories where no events were reported). Table 6 shows contributing factors for sentinel events reported in 2014–15 by sentinel event category (excluding categories where no events were reported).

### Figure 11: Contributing factors for sentinel events reported in 2014–15




Note: Source data are available in Table 3.

## Figure 12: Contributing factors for sentinel events reported in 2014–15 by sentinel event category (excluding categories where no events were reported)



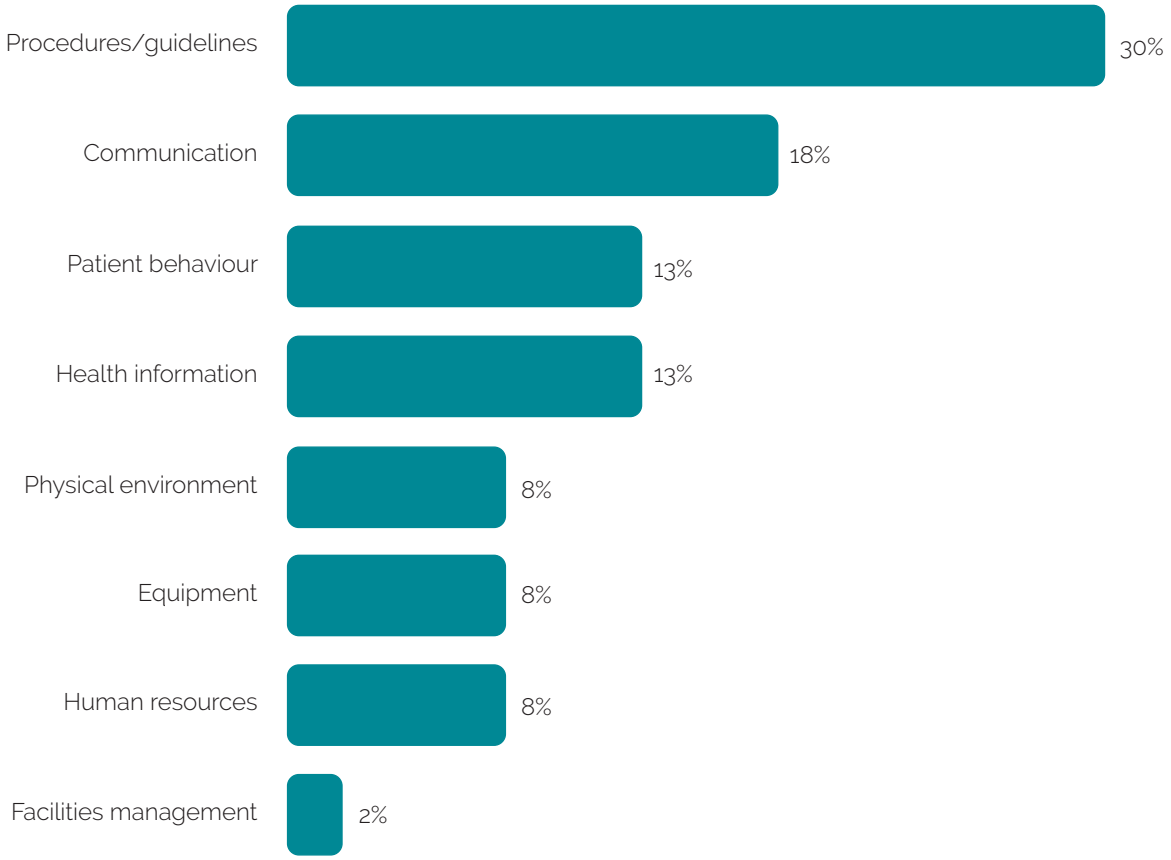

Note: Source data are available in Table 6.

## Table 6: Contributing factors for sentinel events reported in 2014–15 by sentinel event category

| | Procedures/guidelines | Human resources | Communication | Health information | Equipment | Physical environment | Facilities management | Patient behaviour | Course of disease | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Suicide in an inpatient unit | 1 | 2 | 2 | 3 | 0 | 1 | 0 | 2 | 0 | 0 | 11 |
| Retained instrument or other material after surgery requiring reoperation or further surgical procedure | 5 | 5 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 18 |
| Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs | 4 | 3 | 4 | 2 | 2 | 2 | 1 | 0 | 0 | 3 | 21 |
| Maternal death or serious morbidity associated with labour or delivery | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 6 |
| Other catastrophic: incident severity rating 1 (ISR 1) | 1 | 16 | 10 | 4 | 0 | 0 | 0 | 18 | 1 | 4 | 54 |
| **Total** | **12** | **27** | **21** | **12** | **3** | **3** | **1** | **20** | **2** | **9** | **110** |

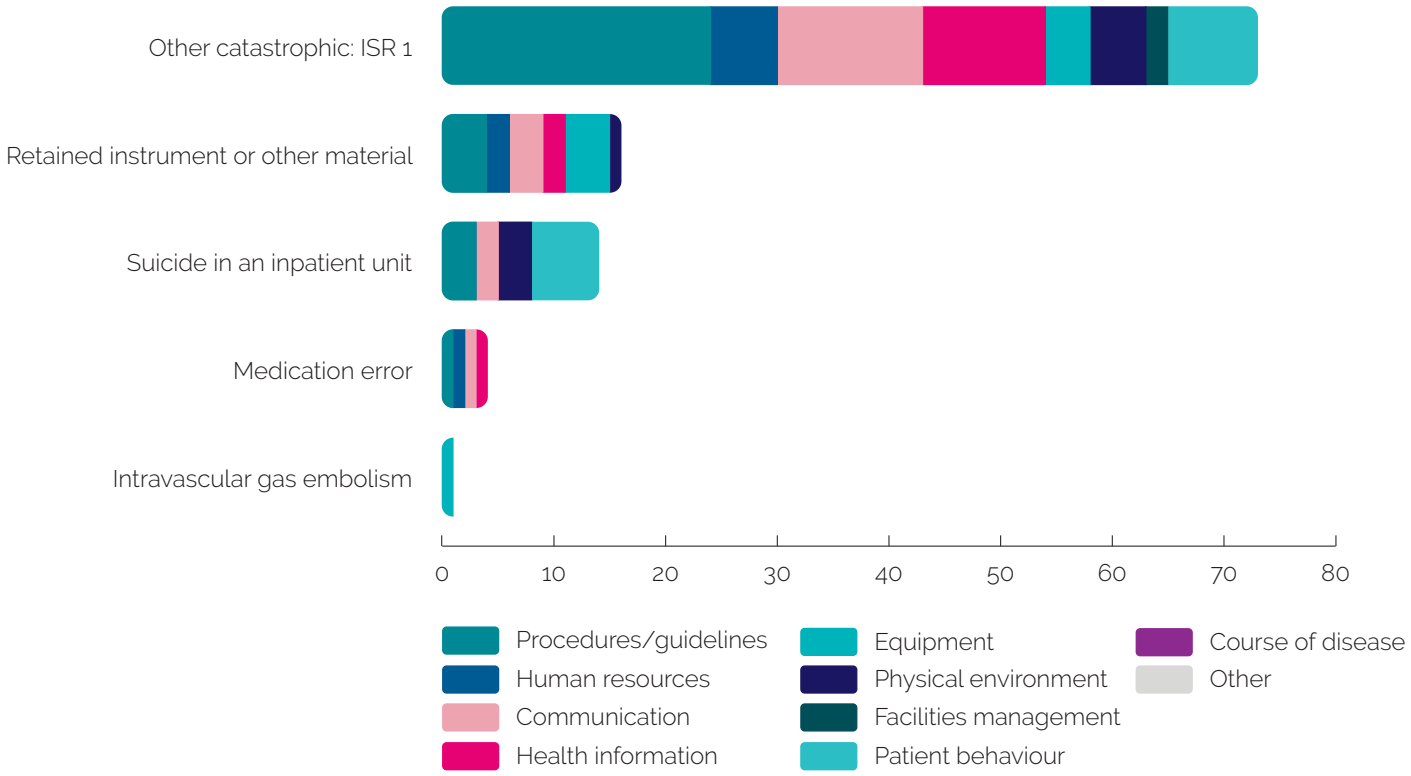
In 2015–16, 108 contributing factors were identified for sentinel events reported to the program. The most frequently identified contributing factors for sentinel events reported this year were procedures/guidelines (30 per cent), communication (18 per cent), patient behaviour (13 per cent) and health information (13 per cent). Figure 13 shows contributing factors for sentinel events reported in 2015–16. Figure 14 shows contributing factors for sentinel events reported in 2015–16 by sentinel event category (excluding categories where no events were reported). Table 7 shows contributing factors for sentinel events reported in 2015–16 by sentinel event category (excluding categories where no events were reported).

### Figure 13: Contributing factors for sentinel events reported in 2015–16




Note: Source data are available in Table 3.

## Figure 14: Contributing factors for sentinel events reported in 2015–16 by sentinel event category (excluding categories where no events were reported)




Note: Source data are available in Table 7.

## Table 7: Contributing factors for sentinel events reported in 2015–16 by sentinel event category (excluding categories where no events were reported)

| | Procedures/guidelines | Human resources | Communication | Health information | Equipment | Physical environment | Facilities management | Patient behaviour | Course of disease | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Suicide in an inpatient unit | 3 | 0 | 2 | 0 | 0 | 3 | 0 | 6 | 0 | 0 | 14 |
| Retained instrument or other material after surgery requiring reoperation or further surgical procedure | 4 | 2 | 3 | 2 | 4 | 1 | 0 | 0 | 0 | 0 | 16 |
| Intravascular gas embolism resulting in death or neurological damage | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Other catastrophic: incident severity rating 1 (ISR 1) | 24 | 6 | 13 | 11 | 4 | 5 | 2 | 8 | 0 | 0 | 73 |
| **Total** | **32** | **9** | **19** | **14** | **9** | **9** | **2** | **14** | **0** | **0** | **108** |

# Conclusions and recommendations

Key conclusions of the triennial report are:

1. The number of sentinel events reported by Victoria public health services and participating private hospitals is less than expected when compared with other jurisdictions.
2. The collection of information during the review of sentinel events is often insufficient to inform future practice. This hampers the ability of Safer Care Victoria to identify trends and support health services in patient safety improvement.
3. Sentinel events involving retained instruments or other material continue to occur despite the availability of system improvement initiatives (for example, the surgical safety checklist).

Safer Care Victoria will address the above findings by actioning the following recommendations:

1. Auditing the Victorian Admitted Episodes Dataset to identify potential sentinel events that have not been voluntarily reported.
2. Commissioning revised sentinel event notification and reporting tools to better understand the context and circumstances in which sentinel events occur and support health services with the implementation of safety improvement initiatives.
3. Conducting an in-depth thematic analysis of root cause analysis reports for sentinel events reported as 'retained instrument or other material category' to identify common themes and formulate state-wide activities for improvement.

Safer Care Victoria will prioritise the implementation of these recommendations during 2017–18.

# Looking forward

Safer Care Victoria will be undertaking several other activities aimed at improving the program including refining the notification process, reviewing root cause analysis tools, considering alternative investigation methods, developing strategies to promote greater accountability for implementing the recommended actions, ensuring timely dissemination of feedback, and strengthening support mechanisms for health services to promote system improvements when required.

# Appendix 1: Incident severity ratings

The Victorian Health Incident Management System (VHIMS) allocates an incident severity rating (ISR) score based on the actual and potential impact of a clinical incident on those involved in the incident and on the healthcare organisation.

The VHIMS derives and ISR score on a scale of one to four depending on the severity of the clinical incident.

| | |
|---|---|
| ISR 1 | Severe/death |
| ISR 2 | Moderate |
| ISR 3 | Mild |
| ISR 4 | No harm/near miss |

The severity of the incident is determined by responses to questions that consider three key factors: degree of impact, level of care and treatment required.

## Degree of impact

Degree of impact relates to the harm experienced by the patient including disease, injury, suffering, disability or death where:

- **Disease** relates to physiological or psychological dysfunction.
- **Injury** is damage to tissues caused by an agent or circumstance.
- **Suffering** is the experience of anything subjectively unpleasant including pain, malaise, nausea, vomiting, loss (any negative consequence including financial), depression, agitation, alarm, fear or grief.
- **Disability** is any type of impairment of body structure or function, activity limitation and/or restriction of participation in society associated with past or present harm.

| | |
|---|---|
| No harm – did not reach the patient | There was no harm to the subject; that is, the incident did not reach the subject. |
| No harm – did reach the patient | The incident reached the subject but there was no harm caused. |
| No harm – significantly inconvenienced | The subject was significantly inconvenienced in relation to time, travel, wages, lifestyle or family impact as a result of the issue or incident. |
| Harm – but no loss or reduction in functioning | The subject experienced harm but did not have a loss or reduction in functioning as a result of the incident. |
| Harm – temporary reduction in functioning | One or more systems/components of the subject's body are able to operate, fulfilling their purpose or role but not to the level that they could prior to the incident. The subject is likely to recover from this reduction in the short–medium term. |
| Harm – temporary loss in functioning | One or more systems/components of the subject's body are no longer able to operate, fulfilling their purpose or role. The subject is likely to recover from this loss in the short–medium term. |
| Harm – permanent reduction in functioning | One or more systems/components of the subject's body are able to operate normally, fulfilling their purpose or role but not to the level that they could prior to the incident. The subject is not like to recover from this reduction. |
| Harm – permanent loss in functioning | One or more systems/components of the subject's body are no longer able to operate normally, fulfilling their purpose or role. The subject is not likely to recover from this loss. |
| Harm – death | The subject died unexpectedly at the time of, or following, the incident. |
| Unknown | The degree of harm caused to the subject due to the incident is unknown at this time. |

## Level of care

Level of care relates to the healthcare services that were needed as a direct result of the incident.

| | |
|---|---|
| No significant change | The subject did not require any significant extra care or increased length of stay and/or higher care as a result of the incident. |
| Current setting – increased observation, monitoring or length of stay | The subject required increased observation, monitoring or length of stay within their current setting, for example, ward. The subject was not transferred elsewhere to a higher level of care. |
| Internal transfer to a higher level of care or specialled | The subject was transferred internally within the current organisation to a higher level of care, for example ICU, or required specialling (one-to-one care). |
| External transfer – non-inpatient | The subject was transferred externally to another healthcare provider for care but was not admitted. |
| External transfer – inpatient admission | The subject was transferred externally to another healthcare provider for a higher level of care, for example ICU. |
| Not applicable | The level of care is set to 'not applicable' when the degree of impact was 'death'. |
| Unknown | The change in level of care required by the subject due to the incident is not known at this time. |

## Treatment required

Treatment required relates to the interventions that were needed as a direct result of the incident.

| | |
|---|---|
| No treatment | Following a clinical review, intervention was deemed not required. |
| Minor treatment including first aid | The subject required a simple/minor intervention as a result of the incident – for example, blood tests, an x-ray, dressings, medications such as paracetamol, a peripheral IVT, a urinary catheter insertion or a nasogastric tube. |
| Advanced treatment | The subject required significant medical, diagnostic or surgical intervention as a result of the incident – for example, an MRI, CT, medications such as adrenaline, insertion of CVC or PICC line. |
| Not applicable | The treatment required is set to 'not applicable' when the degree of impact was 'death'. |

# Glossary

The following terms are used frequently in this report. Safer Care Victoria acknowledges that the use of these terms varies and that a number of definitions are used in the literature.

| | |
|---|---|
| adverse event | An unintended injury or complication that results in disability, death or prolongation of hospital stay and is caused by healthcare management rather than the patient's disease. |
| ABO blood group | A system for classifying human blood based on the antigenic components of blood cells and their corresponding antibodies. |
| behavioural assessment | Processes involved in establishing a patient's cognitive state, particularly whether the patient is at risk of wandering, absconding or causing harm to staff. |
| clinical governance | A health service board's accountability for ensuring a framework and rigorous systems are established so healthcare safety and quality are monitored, evaluated and continuously improved. |
| clinical guidelines | Any policy, procedure or guidelines concerning the processes involved in the clinical management of patients. |
| clinical incident | An event or circumstance that could have, or did, lead to unintended or unnecessary harm to a person receiving care. |
| Clinical Incident Review Panel (CIRP) | A departmental subcommittee responsible for the review of root cause analysis reports. |
| harm | Death, disease, injury, suffering or disability experienced by a person. |
| incident severity rating | A method of quantifying the actual or potential consequences of an incident or near miss. |
| intravascular gas embolism | A blockage caused by one or more bubbles of air or gas in the circulatory system. |
| monitor | To check, supervise, observe critically or record the progress of an activity or system on a regular basis to identify change. |
| near miss | An incident that did not cause harm. |
| open disclosure | An open discussion with the patient, their family and/or carers following an adverse event |
| risk | The chance of something happening that will have an impact on objectives; it is measured in terms of consequence or likelihood. |
| risk-reduction action plan | Strategies identified to reduce the risk of similar adverse patient outcomes occurring in the future. |
| root cause | A significant factor that contributed to an incident. |
| root cause analysis | A systematic process where the factors that contributed to an incident are identified. |
| sentinel event | A relatively infrequent serious adverse event that occurs as a result of hospital system or process deficiencies where the outcome for the patient is death or serious harm. |

# Helpful resources

Australian Commission on Safety and Quality in Health Care 2011, *National safety and quality health service standards Australia*, viewed 12 May 2016, <www.safetyandquality.gov.au/our-work/accreditation-and-the-nsqhs-standards/information-for-health-service-organisations/>.

Australian Commission on Safety and Quality in Health Care 2014, *Recognition and response to clinical deterioration*, viewed 12 May 2016, <www.safetyandquality.gov.au/our-work/recognition-and-response-to-clinical-deterioration/>.

*Charter of Human Rights and Responsibilities Act 2006* (Vic)

Steering Committee for the Review of Government Service Provision 2017, *Report on Government Services 2017*, vol. E, *Health*, Productivity Commission, Canberra.