



Government of **Western Australia**
Department of **Health**

Your safety in our hands in hospital

An Integrated Approach to Patient Safety Surveillance by WA
Health Service Providers, Hospitals and the Community: 2017



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Acknowledgements

The PSSU would like to thank and acknowledge the contribution of all clinical and administrative staff who have devoted their time and effort to notify, report, investigate and evaluate clinical incidents and consumer feedback with the goal to improve health care delivery. We would also like to acknowledge the patients and their families who have experienced unintended harm whilst receiving care in our health system. By reporting, investigating, implementing change and sharing the lessons learned, we aim to reduce error and improve patients' safety.

Foreword

The commitment to patient safety and ensuring that Western Australians receive exceptional health care has strengthened considerably since the release in 1999 of the first state-wide strategic plan for safety and quality in health care.

In 2017, this commitment is further strengthened by an external review into patient safety across the WA health system. Specifically, the Department of Health engaged internationally renowned Professor Hugo Mascie-Taylor to undertake a comprehensive and robust review of safety and quality in the WA health system. This review was to ensure that health care delivery across WA continues to improve, especially as we move into a new era of devolved governance.

Both strategic and operational opportunities were identified that would enhance patient safety and support staff in obtaining safety and quality assurances for the care they deliver. The review was extensive and covered areas ranging from accountability and responsibility of staff, governance structures, system policies, standards, oversight and system priorities for safety and quality.

The findings from this review will be used to strengthen current patient safety practices to reduce avoidable harm to our patients but also to further protect our staff by ensuring that the complex and demanding health care systems which they work within function safely, efficiently and effectively.

Findings from the safety and quality review are publically available at:

<http://ww2.health.wa.gov.au/Reports-and-publications/Review-of-Safety-and-Quality-in-the-WA-health-system>

The WA health system has benefitted from a workforce that is both professional and committed to ensuring patients are afforded first class health care. This commitment to care and continuous improvement is demonstrated by the notification and investigation of clinical incidents that have resulted in harm to our patients. Each year the number of clinical incidents reported to the web based WA health system Datix Clinical Incident Management System (CIMS) has increased. Western Australians should be reassured as these notifications and investigations are aimed at improving health care delivery by making certain that we learn from our errors and put strategies in place to prevent others from being harmed.

This is the sixth report in the WA health system Patient Safety series that provides an integrated review of patient safety and clinical incidents across the WA health system. The aim of this report is to provide evidence of the types of challenges affecting patient safety and to support improvements in health care quality.

The safety and well-being of WA health system patients is the responsibility of all staff in partnership with the people we care for. Delivering safe care is in our hands.

Karen Lennon
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Common Acronyms

ACSQHC	Australian Commission on Safety and Quality in Health Care
ANZASM	Australian and New Zealand Audit of Surgical Mortality
CFM	Consumer Feedback Module (complaint database)
CHADx	Classification of Hospital Acquired Diagnoses
CIM	Clinical Incident Management
CIMS	Clinical Incident Management System database
CLU	Coronial Liaison Unit
CVVHD	Continuous veno-venous haemodialysis
DOH	Department of Health, Western Australia
DVT	Deep Vein Thrombosis
GP	General Practitioner
HAC	Hospital Acquired Complication
HMDC	Hospital Morbidity Data Collection
HSP	Health Service Providers
ICU	Intensive Care Unit
NGO	Non-government organisation
NSQHS	National Safety and Quality Health Service (Standards)
PSSU	Patient Safety Surveillance Unit
QI	Quality Improvement
RACS	Royal Australasian College of Surgeons
ROD	Review of Death
SAC	Severity Assessment Codes
TGA	Therapeutic Goods Administration
WAASM	Western Australian Audit of Surgical Mortality
VTE	Venous thromboembolus



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Executive Summary

This report provides to the WA public, information and data on how the WA health system manages and resolves clinical incidents, consumer feedback and coronial recommendations resulting from health care delivery. During 2016/17 there were 30,142 clinical incidents notified and 27,861 clinical incidents were confirmed. The majority of clinical incidents (n=24,513; 81.3%) reported in 2016/17 were classified as SAC 3 and resulted in minimal or no harm to the patient.

There were 653 SAC 1 clinical incidents notified and investigated during 2016/17, of which 150 were declassified by 30 June 2017, resulting in 503 confirmed SAC 1 clinical incidents reported by public hospitals, private licensed healthcare facilities, and other contracted non-government organisations at the time of this report.

While there has been an increase in the notification of SAC 1 clinical incidents compared to previous reporting periods (441 notifications in 2014/15 and 519 in 2015/16), this should not be taken as a direct indication that safety in the WA health system is compromised. It is internationally recognised that healthcare systems that are proactive in notifying clinical incidents and undertaking in-depth investigations to identify contributory factors and implement improvement strategies are more likely to reduce avoidable harm to patients. The WA health system's Clinical Incident Management (CIM) Policy also encourages the notification and investigation of near miss events (those that did not result in actual harm to the patient).

In 2016/17, 15 (3%) confirmed SAC 1 clinical incidents comprised one of the eight national sentinel event incident categories, with retained products after surgery the most frequently reported sentinel event (n=6; 1.2%). The most frequently reported categories of confirmed 'Other SAC 1' clinical incidents included complications of an inpatient fall (n=79; 15.7%), hospital process issues (n=61; 12.1%) and missing or absent without leave of any high risk mental health patient/consumer (n=59; 11.7%).

The rate of SAC 1 inpatient clinical incidents continues to remain low and was calculated at two clinical incidents per 10,000 bed days or seven clinical incidents per 10,000 separations.¹ Communication factors and not following policies, procedures or guidelines continue to be the major contributory factors identified in the investigation of SAC 1 clinical incidents, and therefore warrant continued focus if improvements in patient safety are to be achieved. Of the Australian Commission on Safety and Quality in Health Care's (ACSQHC) National Standards, medication (n=6,455; 23.2%) and falls (n=5,510 n=19.6%) clinical incidents remain the most frequent national standards categories reported for 2016/17.

The WA health system uses many different methods to identify, investigate and improve clinical and service outcomes. This annual report also presents data captured from administrative data sources to provide insight into appropriate care delivery and hospital acquired diagnoses. In 2016/17, the WA health system provided 573,455 episodes of care to inpatients who accumulated 1,782,141 bed days. Inpatient clinical incidents accounted for 1.2% (n=21,872) of hospital bed days and were associated with 3.8% (n=21,872) of hospital separations. Confirmed inpatient SAC 1 clinical incidents accounted for 1.7% (n=380) of all inpatient incidents.

¹ The numerator for the SAC 1 clinical incident rate excludes SAC 1 incidents that have not been confirmed, were notified by community health care providers or private licensed health care facilities and contracted non-government organisations while the denominator includes either separation or bed days data from WA Health hospitals' inpatient activity. Bed day data have been introduced as it is more sensitive than separation data.

Of note, the ACSQHC is conducting a review of the national sentinel event list that was first endorsed by Australian health ministers in 2002. This should see a more contemporary list of serious but preventable sentinel events endorsed during 2017-18.

Having a relationship to the sentinel event review, the Independent Hospital Pricing Authority (IHPA) has been progressing national work on developing and implementing approaches to pricing and funding for safety and quality in Australian public hospitals. This work introduces penalties for episodes of care that include a sentinel event from 1 July 2017, with plans for reduced funding for hospital acquired complications from 1 July 2018.

Consumer feedback provides the WA health system with opportunities for service improvement that would increase consumer satisfaction as well as the safety and quality of services provided. A total of 18,029 consumer feedback items² were reported across the WA health system throughout 2016/17, of which 8,851 (49%) were compliments followed by 4,975 (28%) contacts and 4,203 (23%) complaints. Issues reported across the top four complaint categories of 'Quality of Clinical Care', 'Communication', 'Access' and 'Rights, Respect and Dignity' constituted 83% of the total 7,076 complaint issues reported across the WA health system. In addition, data from the annual Patient Evaluation of Health Services survey, administered by the Health Survey Unit, has been included in this report to supplement the data available from Datix CFM.

The Coronial Liaison Unit (CLU) continues to work effectively with the Office of the State Coroner to share lessons learned from inquested cases to improve future patient care. The PSSU recognises that coroners have made much fewer health related recommendations over the past year. The 22 inquest findings released over 2016/17 have resulted in a total of 8 health related recommendations. Nevertheless, each inquest finding has been reviewed by the Coronial Review Committee and concerns given due consideration.

All deaths that occur whilst the patient is under the care of a surgeon are notified to the WA Audit of Surgical Mortality (WAASM) office during each calendar year, with 580 deaths notified in 2016. The WAASM identified 11 adverse events that caused death in 2015 (two were considered definitely preventable) and four adverse events that caused death in 2016³ (two of these were considered definitely preventable).

Healthcare associated infections (HAI) are a major patient safety issue. Findings showed that in 2016/17, HAI accounted for 1.1% (n=3,829) of all hospital acquired complications. Urinary tract infections and pneumonia were the most frequent type of HAI reported with these two infections also the most frequently reported by the top five specialty groups. Greater focus on prevention strategies that target urinary tract infections and pneumonia would be of benefit.

While it is encouraging that clinical incident reporting is increasing, the amount of data that is available to clinicians and health care providers can be overwhelming. More efficient use of clinical incident data through data analytics is enabling real time data to be tailored and presented to meet the needs of clinical areas. Reviewing and sharing dashboard data that monitors a range of patient safety indicators is certainly a good start to identifying if there is a problem with healthcare delivery on your ward or at your site. However, surveillance without intervention is too passive. The strength of clinical incident management lies in utilising clinical incident data to change practice and close the loop by preventing further harm to our patients.

² It is mandatory for all complaints received by WA HSP to be entered in Datix CFM, and all complaints relating to public patients at public-private partnership hospitals (JHC, PHC and SJOG Midland) to be reported to PSSU. Recording of compliments and contacts in Datix CFM is optional.

³ 2016 findings include data in which the audit process was complete at 31 March 2017.

About this Report

This comprehensive patient safety report for 2016/17 is the sixth WA health system report of this kind to integrate data captured in this report from the:

- Datix CIMS (online)
- Hospital Morbidity Data Collection (HMDC)
- Review of Death (ROD)
- Western Australian Audit of Surgical Mortality (WAASM)
- Coronial review process
- Datix Consumer Feedback Module (CFM) (online) database and other complaints management systems (used by public private partners)
- Patient Evaluation of Health Services Survey.

Data for 2016/17 are presented with the following caveats:

- Datix CIMS is an online electronic clinical incident management system and contains a full 12 months of financial year data.
- There is a time lag in Datix CIMS for the confirmation of SAC which will cause figures to change over time.
- Datix CFM is an online electronic complaint management system and contains a full 12 months of financial year data.
- The Coronial data includes a full 12 months of financial year data.
- The ROD data reflects the calendar year 1 January – 31 December 2016.
- The WAASM data are captured by calendar year 1 January – 31 December 2016.
- There is a two to three month HMDC data coding/reporting lag.
- Hospital Acquired Complications includes data for the financial years (2014/15, 2015/16 and 2016/17 (YTD March).
- Patient Evaluation of Health Services includes a full 12 months of financial year data.⁴

Care should be taken when comparing data from previous reports as the data summarised here are taken from dynamic systems and numbers will vary over time. Clinical incident rates only include inpatient data as the numerator over inpatient separation or bed day data as the denominator. This provides a more accurate rate of clinical incidents and therefore rates cannot be compared to previous years⁵ rates calculations which included clinical incidents reported by community health care providers or private licensed health care facilities and contracted non-government organisations for which no denominator data was readily available.

This report presents data which focuses on eight clinical and one consumer National Safety and Quality in Health Care Standards. Sections include; partnering with consumers, health care associated infections, medication clinical incidents, patient identification clinical incidents, clinical handover incidents, blood and blood product clinical incidents, pressure injuries, clinical deterioration incidents and falls.

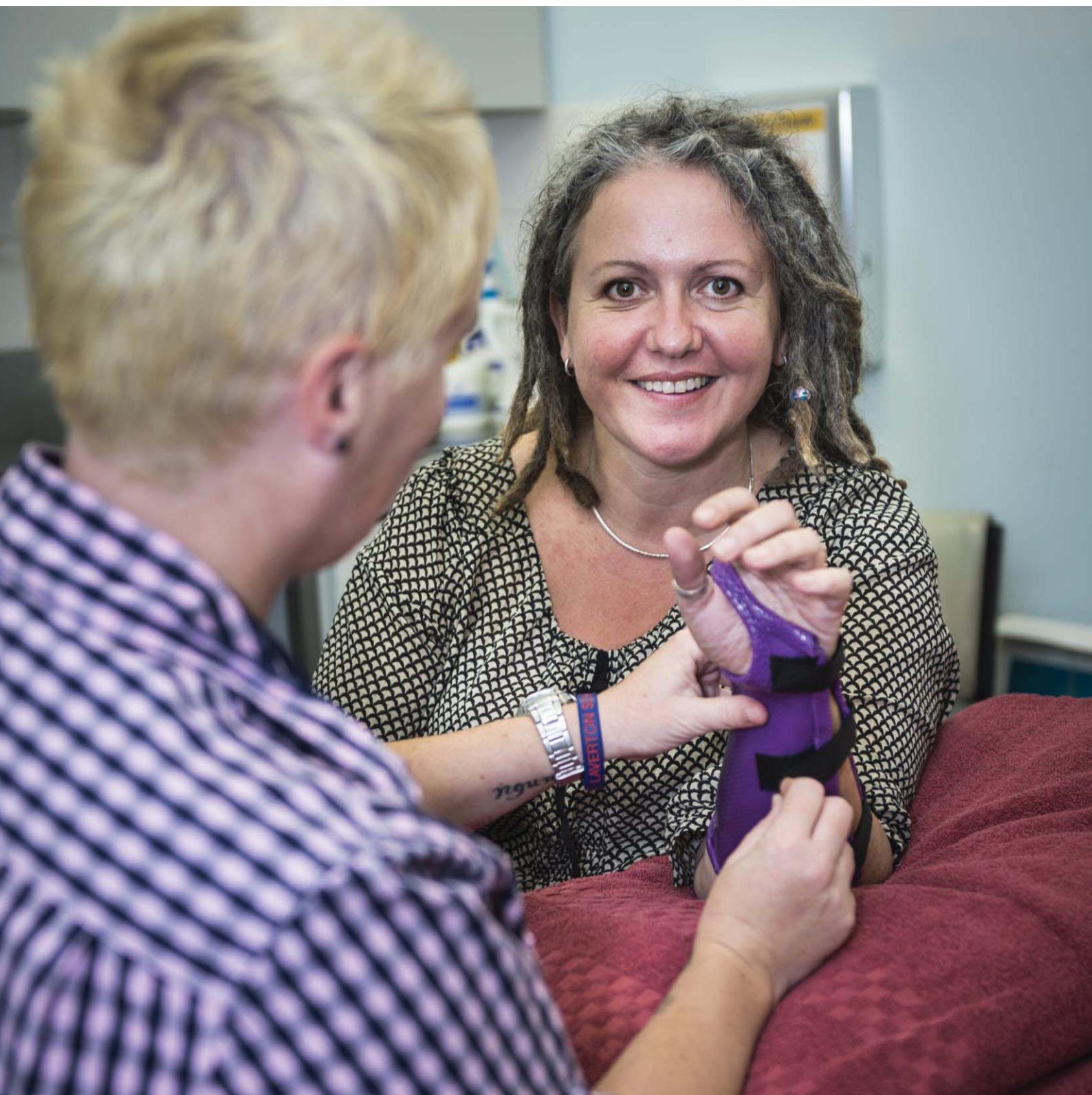
Declassification of a reported SAC 1 clinical incident may occur following a thorough investigation, if it is identified that no healthcare causative factors contributed to the incident. Declassification requests are reviewed by two DOH senior clinicians with extensive experience in the area of safety and quality in health care. Declassification means that the event is no longer considered to be a clinical incident.

⁴ The patient cohort only includes those aged 16-74 years who had an inpatient stay of 0-34 days.

⁵ Rates are comparable for 2015/16 data but not with that of years prior to 2015/16.

Consumer feedback provides health care providers with an indication of current areas of concern to consumers and thereby highlights potential areas for service improvements. Although not all consumer feedback items and resultant improvements will directly relate to the quality of clinical care provided, improvements in the quality of a service leading to increased consumer satisfaction are equally valuable and data related to the top four complaint categories have been included in the report.

This report is further strengthened by the inclusion of administrative data from the Hospital Morbidity Data Collection (HMDC) which captures inpatient activity and discharge data, and includes hospital acquired complications (HAC) captured by the condition onset flag (COF) code. Complementing the COF codes are the Hospital Acquired Complications clinical codes provided by the ACSQHC which capture 16 complications that have been deemed to possibly respond to clinical risk mitigation strategies.



Clinical Incident Management: Overall Notifications

The WA health system uses the Datix CIMS for the notification, investigation, analysis and evaluation of practice improvements of clinical incidents that occur within all public hospitals in Western Australia. Severity Assessment Code (SAC) 1 is used to identify clinical incidents that result in serious harm/death or near miss. It is a mandatory requirement for all public hospitals/health care providers as well as all private licensed health care facilities and contracted non-government organisations to notify and investigate SAC 1 clinical incidents.⁶

Between 1 July 2016 and 30 June 2017 there were 573,455 separations with inpatients accumulating a total of 1,782,141 bed days from public hospitals and public patients attending Peel Health Campus, Joondalup Health Campus and St John of God Midland.

During 2016/17 there were 30,142 clinical incidents notified of which 27,861 clinical incidents were confirmed clinical incidents. Of these confirmed incidents 21,872 occurred during a hospital stay, with the remainder of clinical incidents reported by emergency departments, outpatient departments, community health care providers, private licensed healthcare facilities and other contracted non-government organisations.

Reported inpatient clinical incidents were associated with 3.8% (n=21,872) of hospital separations. The rate⁷ of inpatient clinical incidents observed between July 2016 and June 2017 was calculated at:

- 6 SAC 1 clinical incidents per 10,000 separations
- 48 SAC 2 clinical incidents per 10,000 separations
- 416 SAC 3 clinical incidents per 10,000 separations.

Reported inpatient clinical incidents were associated with 1.2% (n=21,872) of hospital bed days. Findings showed that there were:

- 2 SAC 1 clinical incidents per 10,000 bed days
- 15 SAC 2 clinical incidents per 10,000 bed days
- 129 SAC 3 clinical incidents per 10,000 bed days.

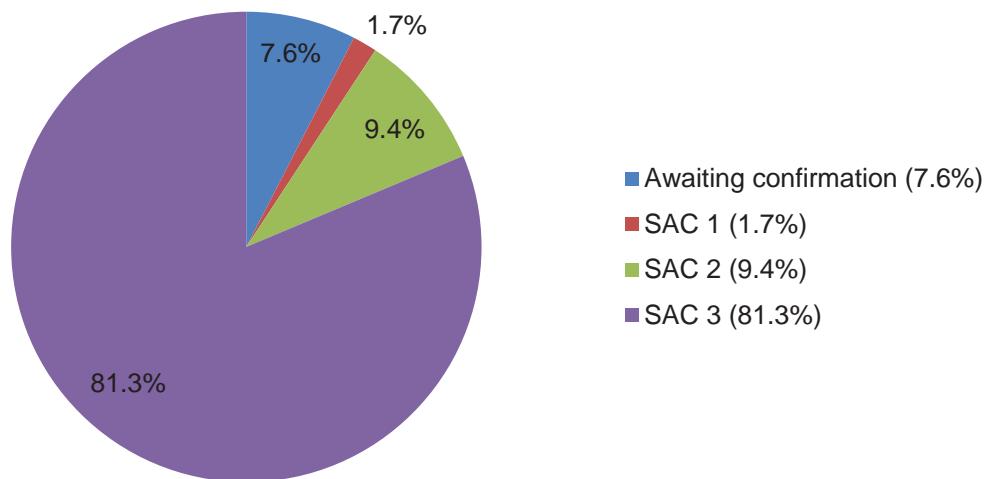
⁶ Further information on the licensing of private healthcare facilities can be found at:
http://ww2.health.wa.gov.au/Articles/A_E/About-licensing-of-private-healthcare-facilities

⁷ Please note that the numerator for the SAC clinical incident rate excludes SAC incidents that have not been confirmed, were notified by emergency or outpatient departments, community health care providers or private licensed health care facilities and contracted non-government organisations while the denominator only includes either separation or bed day data from WA health system hospitals' inpatient activity.

Findings revealed that 538 mental health clinical incidents were notified that occurred in the community, with 939,981 occasions of service provided to community mental health patients. A rate of 6 clinical incidents per 10,000 occasions of community mental health service (across all SAC ratings) was calculated for the 2016/17 period.

Clinical incidents categorised as SAC 3 (n=24,513; 81.3%), referring to minimal or no harm, were the most frequently reported category of clinical incidents (see Figure 1). The next most frequently reported incident category was SAC 2 clinical incidents (n=2,844; 9.4%) followed by SAC 1 clinical incidents (n=503; 1.7%).

Figure 1: Percentage of Clinical Incidents by SAC (2016/17)



SAC 1 clinical incidents include clinical incidents from public and private hospitals and contracted non-government organisations in accordance with their license or contract with the WA health system. Please note that at the time of data extract there were 2,281 clinical incidents that had yet to have a SAC rating confirmed.

The five most frequently reported confirmed SAC 1 clinical incident categories representing 58.8% (n=296) of confirmed SAC 1 incidents are presented in Table 1. Complications of an inpatient fall was the most frequently reported SAC 1 clinical incident (n=79; 15.7%) followed by hospital process issues (n=61; 12.1%). Examples of hospital process issues include; delays in transfer, treatment or monitoring, follow-up planning processes that were insufficient/incomplete etc.

Table 1: Frequency and Percentage of the Top Five Confirmed SAC 1 Clinical Incident Categories (2016/17)

SAC 1 Category	(n)	(%)
Complications of an inpatient fall	79	15.7
Hospital process issues	61	12.1
Missing or absent without leave of any high risk mental health patient/consumer	59	11.7
Infection control breach	50	10.2
Any other incident resulting in serious harm or death	47	9.3
Total	296	58.8

The most frequent SAC 1 clinical incident category involving mental health patients, was missing or absent without leave of any high risk mental health patient/consumer which accounted for 11.7% (n=59) SAC 1 clinical incidents (see Table 2). However it should be noted that 41 of these incidents resulted in no harm to the patient and a further 11 incidents resulted in only minor harm. In total there were 32 clinical incidents where the outcome was the death of a mental health patient, comprising 30 incidents categorised as the unexpected death of a mental health client and 2 sentinel events involved the suicide of a patient in an inpatient unit (or whilst on leave).

Table 2: Frequency of Confirmed SAC 1 Clinical Incident Categories related to Mental Health Care (2016/17)

SAC 1 Category	(n)	%
Missing or absent without leave of any high risk mental health patient/consumer	59	11.7
The unexpected death of a mental health client	30	6.0
Mental health clinical deterioration resulting in serious harm	20	4.0
Suicide of a patient in an inpatient unit (or whilst on leave)	2	0.4
Total	111	22.1

The five most frequently reported Tier One incident types represent 74% (n=20,226) of all confirmed SAC 2 and 3 clinical incidents reported during the 2016/17 period (see Table 3). Medication incidents (n=6,424; 23.5%) and falls (n=5,433; 19.9%) were the most frequently reported SAC 2/3 clinical incidents notified in 2016/17.

Table 3: Frequency and Percentage of the Top Five Tier One Incident Types for Confirmed SAC 2 and 3 Clinical Incidents (2016/17)

Tier One Incident Categories SAC 2/3	(n)	(%)
Medication	6,424	23.5
Falls*	5,433	19.9
Behaviour	3,731	13.6
Documentation	2,650	9.7
Therapeutic Processes/Procedures	1,988	7.3
Total	20,226	74.0

Remaining incident types included: administrative processes, anaesthesia care, blood/plasma products, diagnostic processes/procedures, environmental hazards, health care associated infections, maternity care, medical devices/equipment, medical gases/oxygen, neonatal care, nutrition, personal property/data/information, and pressure injuries.

*Tier One category is actually titled patient accidents/falls with patient accidents excluded from this figure.

Data presented in Table 4 are based on the top five Tier One categories of which the top five Tier Three incidents types accounted for 18.7% (n=5,111) of all confirmed SAC 2 and SAC 3 clinical incidents. Findings revealed that physical aggression had the highest frequency with 1,673 behaviour incidents citing this category. In 1,574 clinical incidents, documentation was found to be ambiguous, incorrect or incomplete.

Table 4: Frequency and Percentage of the Top Five Tier Three Incident Types for Confirmed SAC 2 and 3 Clinical Incidents (2016/17)

Tier Three Incident Type SAC 2/3	(n)	(%)
Behaviour: Physical aggression	1,673	6.1
Documentation: Ambiguous incorrect or incomplete	1,574	5.8
Medication: Incorrect dose	836	3.1
Falls: Movement to or from bed	628	2.3
Therapeutic Processes/Procedures: Treatment/procedure was incomplete/incorrectly performed	400	1.5
Total	5,111	18.7

Data on eight of the ACSQHC's National Standard Categories accounted for 73.2% (n=20,399) of all confirmed clinical incidents (see Table 5). Results show that medication (n=6,455) and falls (n=5,510) clinical incidents were the most frequently captured of the eight National Standards.

Table 5: Frequency and Percentage of Confirmed Eight National Standard Indicators (2016/17)

Eight National Standards	(n)	(%)
Standard 3: Preventing and Controlling Healthcare Associated Infections	765	2.7
Standard 4: Medication Safety	6,455	23.2
Standard 5: Patient Identification and Procedure Matching	3,284	11.8
Standard 6: Clinical Handover	2,114	8.0
Standard 7: Blood and Blood Products	159	0.6
Standard 8: Preventing and Managing Pressure Injuries	1,326	4.8
Standard 9: Recognising/Responding to Clinical Deterioration	680	2.4
Standard 10: Preventing Falls and Harm from Falls	5,510	19.8
Total	20,399	73.2

SAC 1 Clinical Incidents

The reporting of SAC 1 clinical incidents is mandatory for WA public hospitals, all private licensed health care facilities and contracted non-government organisations (in accordance with their license or contract with the WA health system). The 2016/17 reporting period is the third complete period Health Service Providers (HSP) have reported SAC 1 clinical incidents via the web-based Datix CIMS.

In 2016/17, 653 SAC 1 clinical incidents were notified by WA public hospitals, private licensed health care facilities, and contracted non-government organisations. Of these incidents 150 SAC 1 clinical incidents had been declassified, resulting in 503 confirmed SAC 1 clinical incidents. The investigation of 100 SAC 1 clinical incidents notified during 2016/17 remained ongoing at 30 June 2017. Of these confirmed SAC 1 clinical incidents, 15 (3%) were identified as sentinel events with the remainder of SAC 1 clinical incidents captured as Other SAC 1 Incidents (n=488; 97%; see Figure 2).

Figure 2: Percentage of Confirmed SAC 1 Clinical Incidents by Category (2016/17)

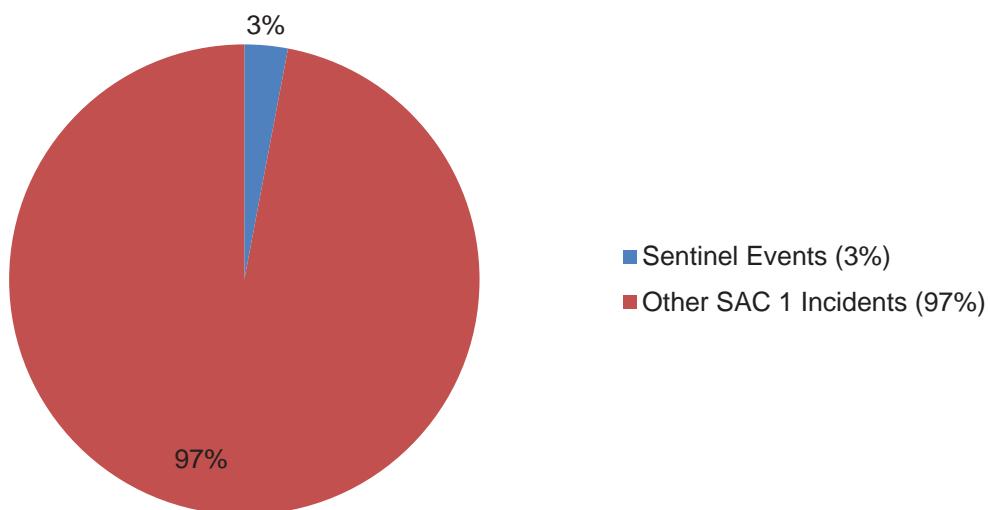


Table 6 illustrates the frequency of confirmed SAC 1 clinical incidents over a five year period. Findings show that there has been a relatively consistent increase in the reporting of confirmed SAC 1 clinical incidents over time.

Table 6: Frequency of Confirmed SAC 1 Clinical Incidents by National Sentinel Event and Other SAC 1 Clinical Incident Types (2012 to 2017)

SAC 1 Categories	2012/13	2013/14	2014/15	2015/16	2016/17
Sentinel Events	17	10	10	14	15
Other SAC 1 Incidents	257	305	330	410	488
Total	274	315	340	424	503

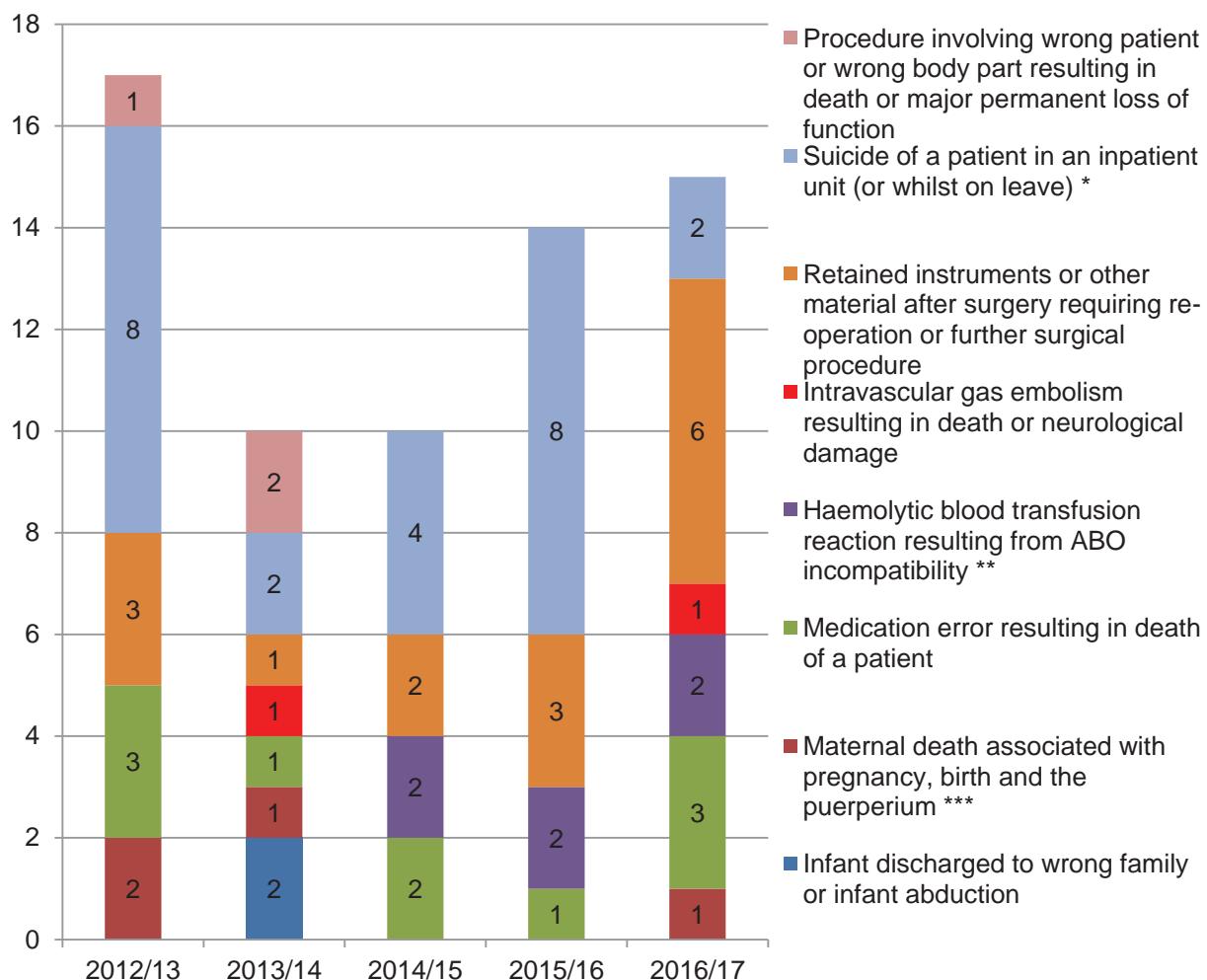
Death was noted as the patient outcome in 117 (23%) of confirmed SAC 1 clinical incidents. Of these deaths, 32 (27.3%) were mental health patients.

Sentinel Event Notifications

Sentinel events represent eight specific types of clinical incident that were endorsed by Australian Health Ministers in 2004 (see Appendix One). Western Australian public hospitals (and later licensed private healthcare facilities) have provided notification of their occurrence since 2004. In addition to the annual reporting of sentinel events within this report, sentinel event notifications by WA Public Hospitals are included in the Australian Government Productivity Commission Report on Government Services (ROGS) annual report.⁸

Figure 3 identifies sentinel events notified from 2012/13 to 2016/17 by category. The most frequently reported sentinel event category in 2016/17 was retained instruments or other material after surgery which required re-operation or further surgical procedure (n=6). There were three notifications of medication errors resulting in the death of a patient.

Figure 3: Frequency of Sentinel Event by Category (2012/13 to 2016/17)



* In 2015/16 one sentinel event notified in the category suicide of a patient in an inpatient unit (or whilst on leave) was a near miss that resulted in only minor harm to the patient.

** In both 2014/15 and 2015/16 all sentinel events notified in the category haemolytic blood transfusion reaction resulting from ABO incompatibility were near misses that resulted in no harm to the patients.

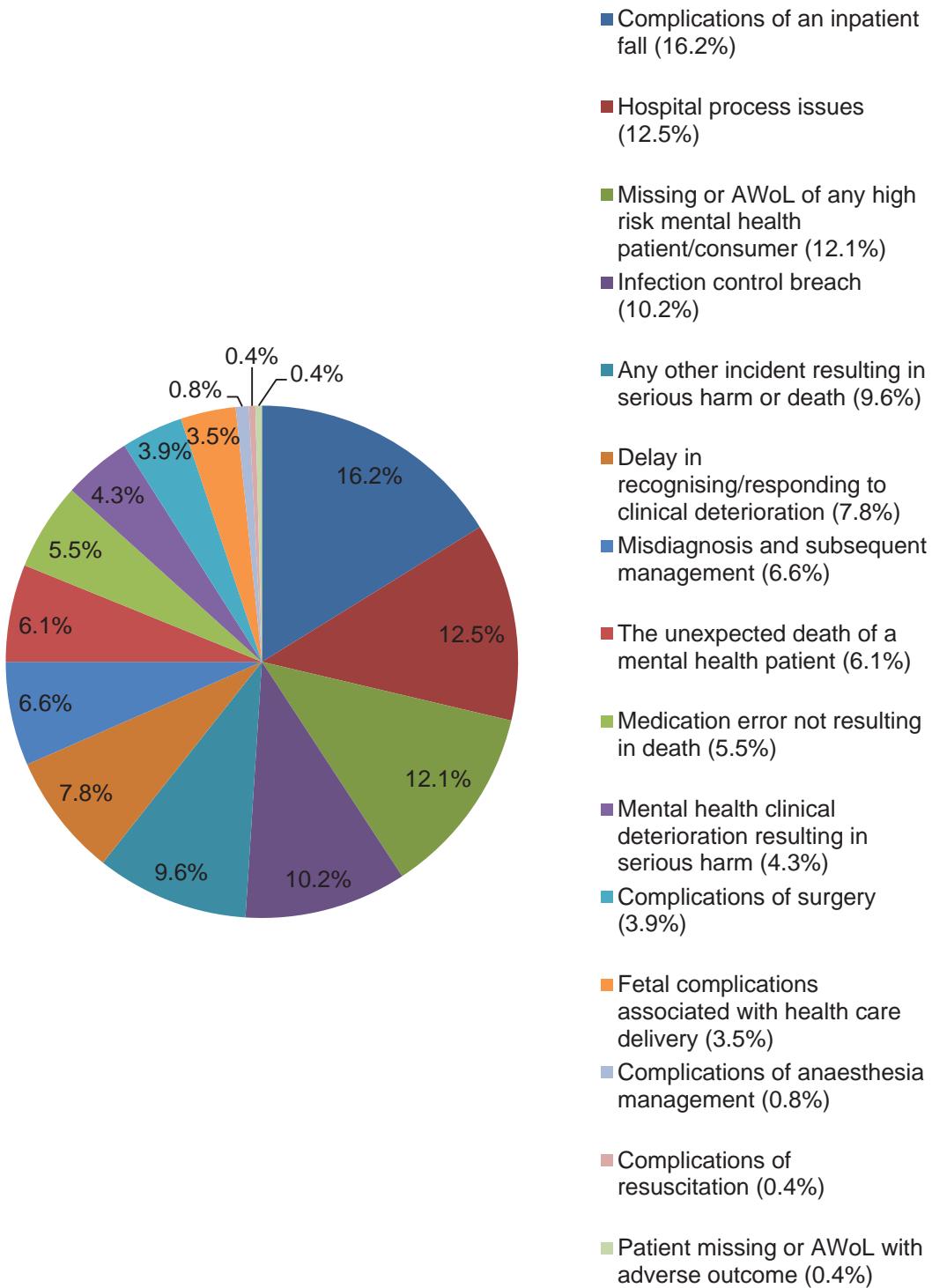
*** The national sentinel event definition regarding maternal death was changed in 2014 and applied in WA from 1 July 2015. Data from July 2015 reflects the updated definition however data for prior periods has not been revised and therefore reflects the previous definition of this sentinel event category (i.e. maternal death or serious morbidity associated with labour or delivery).

⁸ Productivity Commission Report on Government Services Reports can be accessed at: <http://www.pc.gov.au/gsp/rogs>

Other Confirmed SAC 1 Clinical Incidents

In 2016/17, there were 488 SAC 1 clinical incidents other than sentinel events confirmed (see Figure 4). Complications of an inpatient fall (n=79; 16.2%) was the most frequently reported category of SAC 1 clinical incident followed by hospital process issues (n=61; 12.5%).

Figure 4: Percentage of Other Confirmed SAC 1 Clinical Incidents by Category (2016/17)



Other SAC 1 Clinical incidents have increased from 257 clinical incidents in 2012/13 to 488 clinical incidents in 2016/17 (see Table 7). Over this period, complications of an inpatient fall, hospital process issues and missing or absent without leave of high risk mental health patients continue to be frequently reported. Fourteen patients who fell whilst in hospital had an outcome of death in 2016/17.

In 2016/17 the majority of high risk mental health patients who absconded sustained either no harm (n=41) or minor harm (n=11) with five patients sustaining moderate harm and two patients sustaining serious harm.

Table 7: Frequency of Confirmed SAC 1 Clinical Incidents Other than Sentinel Events (2012/13 to 2016/17)

SAC 1 Categories	2012/13	2013/14	2014/15	2015/16	2016/17
Complications of an inpatient fall	72	55	70	54	79
Hospital process issues(i)	20	29	34	58	61
Missing or absent without leave of any high risk mental health patient/consumer (ii)	26	64	34	60	59
Infection control breach	2	7	5	37	50
Any other incident resulting in serious harm or death	29	36	49	31	47
Delay in recognising/responding to clinical deterioration	15	27	26	33	38
Misdiagnosis and subsequent management	23	8	14	19	32
The unexpected death of a mental health client	31	36	40	38	30
Medication error (not resulting in death)	12	14	20	14	27
Mental health clinical deterioration resulting in serious harm (iii)	-	-	-	12	21
Complications of surgery	18	17	14	25	19
Fetal complications associated with health care delivery	5	9	18	16	17
Complications of resuscitation	4	1	2	8	2
Complications of anaesthesia management	-	1	2	3	4
Patient missing or absent without leave with adverse outcome (iv)	-	1	1	2	2
Wrong route administration of oral/enteral treatment (v)	-	-	1	-	-
Total	257	305	330	410	488

Note: Data reflects confirmed SAC 1 clinical incidents and excludes declassified SAC 1 clinical incidents. The Datix CIMS and SAC 1 databases are cumulative databases, with data changing over time as events are investigated retrospectively. The addition of new incident categories to these databases may have resulted in reclassification of events to different incident categories. Data prior to 2012/13 can be found in previous editions of this report.

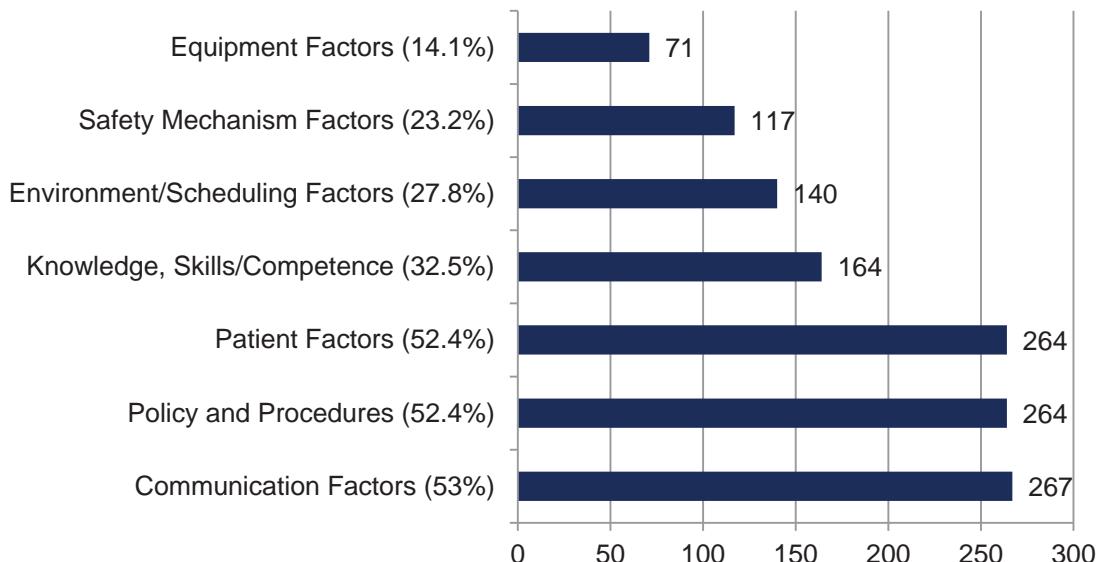
(i) Hospital process issues refers to hospital/health service processes such as referral, transport and transfer, triage, admission, assessment, planning (including discharge planning) or the delivery of care contributed to a poorer than expected outcome. (ii) Category redefined 1 July 2015. Data from 2015/16 onwards reflects the stated definition. Data for prior periods reflects the previous definition "Absconding of any mental health patient". (iii) New category first included 2015/16 with data representing incidents notified from Sept 2015 to June 2016. (iv) Category redefined 1 July 2015. Data from 2015/16 onwards reflects the stated definition. Data for prior periods reflects the previous definition "Patient absconding with adverse outcome". (v) New category first included 2014/15.

SAC 1 Contributory Factors

Figure 5 shows the contributory factors identified following the investigation of 403 SAC 1 clinical incidents (including sentinel events) by public hospitals, private licensed health care facilities and contracted non-government organisations (representing 80.1% of all confirmed incidents in 2016/17). At the time of reporting, 100 SAC 1 clinical incident investigations were still being progressed by HSP.

The most frequently identified contributory factors related to communication issues (n=267; 53%) followed by policies, procedures and guideline and patient factor issues (n=264; 52.4% respectively).

Figure 5: Frequency and Percentage of Contributory Factors Identified for SAC 1 Clinical Incidents (2016/17)

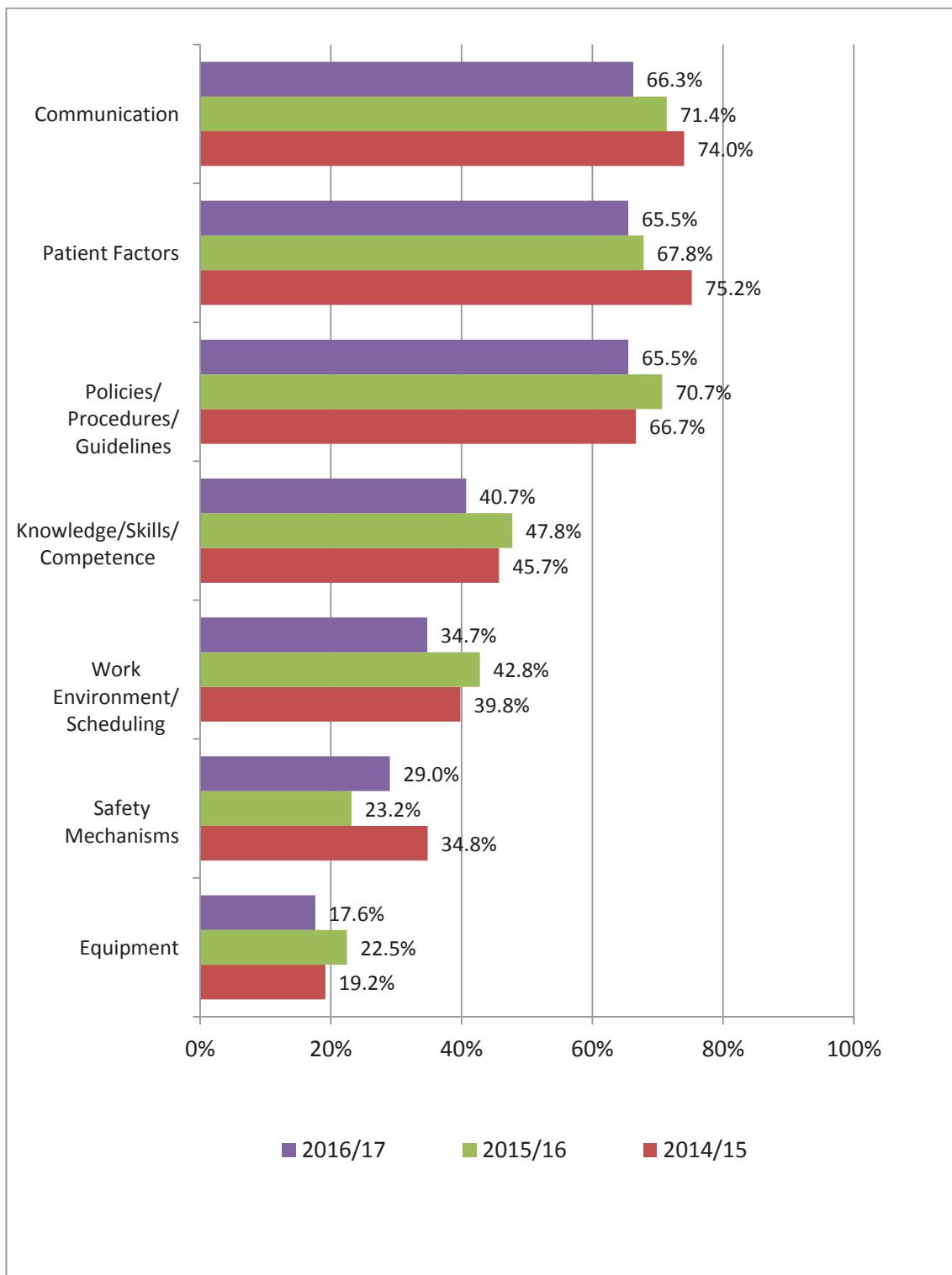


Please note that one clinical incident may have more than one contributory factor.



Contributory factors identified in 2016/17 were compared with those identified in the two previous reporting periods (see Figure 6). Over the last three years patient factors, communication issues and not following policy/procedure/guidelines were consistently reported as the most frequent contributory factors to SAC 1 clinical incidents.

Figure 6: Percentage of Contributory Factors Identified for SAC 1 Clinical Incidents (2014/15 to 2016/17)



Please note that one clinical incident may have more than one contributory factor.

Sentinel Events Recommendations

Of the 15 sentinel events notified in the period, 12 investigation reports had been received at the time of reporting, with three investigation reports pending. The 12 submitted investigation reports all provided recommendations. Contributory factors identified through the investigation of selected sentinel events in 2016/17 are described in Table 8. The main themes revolved around refreshing staff training/education, enhancing communication between staff, and strengthening or establishing policies and procedures to assist in improving patient safety.

Table 8: Sentinel Events Identified Contributory Factors (2016/17)

Identified Issues	Health Service Providers Improvement Initiatives
Haemolytic blood transfusion reaction resulting from ABO incompatibility	
Patient Identification and Procedure Matching Policy was not followed leading to the patient being given the wrong blood type	Staff to complete BloodSafe eLearning module. Staff to attend Speaking Up for Safety® education program.
Pre-transfusion laboratory testing insufficient for rare matched platelets	Departmental discussion and plan developed for the management of high antibody titre platelet products. Higher risk transfusions to be commenced in business hours to maximise supervision.
Medications errors resulting in death	
Similar looking IV bags resulted in IV infusion bag being attached to incorrect line	Standardising IV practice with: -Vasoactive medications to have pink label placed on both side of the infusion bag. -Immediately hang the new infusion bag on the same hook behind the current infusion bag. -Reiterate the six rights of medication administration. -Conduct audits to evaluate if practice change has been adopted.
Vasoactive medications involved in medication error	Develop a vasoactive medication education plan and poster. Update the vasoactive medication nursing practice guidelines.
Communication issues with anticoagulant therapy discussed but not prescribed	Enhance communication and documentation by: -Having multidisciplinary ward rounds. -Standardise venous thromboembolus (VTE) prophylaxis management for spinal patients.
VTE documentation to be updated	The VTE Policy to be consolidated with clear guidelines on VTE prophylaxis. Revise all relevant documentation with regard to VTE prophylaxis. Work with staff to improve their communication skills.

Identified Issues	Health Service Providers Improvement Initiatives
Maternal death associated with pregnancy, birth and puerperium	
Clinical deterioration of patient not identified	Develop a case study on the patient's clinical deterioration and the risk of <i>Streptococcus pyogenes</i> to cause shock which will be used to educate staff.
Inconsistent quality and content of handover	Review bedside handover processes. Reinforce the use of ISOBAR as a requirement of handover.
Observations not recorded	All observations must be recorded and audits to be undertaken on compliance with the policy. Medical record audits to be undertaken to ensure compliance with the policy.
Telephone orders and plans were not recorded	Patient information/agreed plans discussed via telephone or verbally must be documented in the medical notes. Medical record audits to be undertaken to ensure compliance with documentation expectations.
Care not escalated as per observational and response charts	The case study to be used to remind staff of the requirement for increased observations and or escalation must be implemented without delay. Audits will be conducted on clinically deteriorating patients to ensure compliance with escalation and action plans.
Delay in administering antibiotics	A case study will be used to raise awareness of the importance of early antibiotic administration in a patient experiencing shock.
Suicide of a patient in an inpatient unit (or whilst on leave)	
Presence of ligature point in patient's bathroom facilitated self-harm	Ligature points to be reviewed. Emergency ligature equipment to be placed in a prominent accessible position.
Pressure to admit patient to inpatient unit	Improve links with emergency departments to facilitate better communication. Investigate opportunities for doctors to rotate to the inpatient unit. Establish pathways with hospitals to facilitate the transfer of suitable clients.
No formal written mental health assessment completed by ED	Incorporate mental health assessment into emergency admission pathway for clients who have had a recent suicide attempt.
A Detoxication Policy is required	Develop a state-wide Detoxication Policy. Establish an escalation process for serious incidents.
Ongoing assessment of mood and psychological distress to be captured	Mood scores to be added to the observation chart. Develop plan of action related to mood score management.

Identified Issues	Health Service Providers Improvement Initiatives
Suicide of a patient in an inpatient unit (or whilst on leave)	
Tramadol written up but not available over weekend	<p>Pharmacy imprest items to be reviewed and a greater range of pain medication made available.</p> <p>Pharmacy process to be updated with senior pharmacist to review all medication charts daily.</p> <p>Clients with chronic pain to have a clear pain management plan developed.</p>
Management of client conflict	Staff to be given training on the management of client conflict.
Support staff not trained in CPR	All support staff to complete CPR training.
Retained instruments or other material after surgery requiring re-operation or further surgical procedure	
Surgical count procedures failed to identify a missing raytec swab/drain	<p>Observational audits to be conducted in theatre to ensure compliance of count procedures.</p> <p>Audit of surgical count procedures against Policy to ensure compliance.</p>
Surgical count documentation did not identify final count discrepancy	<p>Auditing of the surgical count sheet to identify counts are correctly adhered to and documented accurately.</p> <p>10x random surgical count sheets will be audited on an ongoing basis.</p>
Surgical team to verify count after each procedure	Educate theatre staff with using the WHO Surgical Checklist
Policy Review required	<p>Update the Wound Care Policy to include:</p> <ul style="list-style-type: none"> -The management of specific drains and the escalation process for misplaced drain/material. -If more than 20 packs are used then three counts must be undertaken. <p>Swab safety management system to be implemented in theatres.</p> <p>Staff education to be provided.</p> <p>Audit of education to be undertaken.</p>
Surgical count documentation to be reviewed	Update surgical count documentation to record drains inserted or removed.

Key SAC 1 Clinical Incident Messages

The notification and rigorous investigation of SAC 1 clinical incidents is an important component in preventing serious harm to our patients. The continued increase in the reporting of SAC 1 clinical incidents should be seen as a positive step in improving the safety of our patients. Specifically, increased reporting translates to a health care system that is mature enough to address clinical incidents in an open and transparent way that facilitates learning. The consequence of this type of reflection results in a system that is proactive in making patient safety an inherent component of health care delivery.

In 2016/17 there were 503 confirmed clinical incidents of which 15 were sentinel events. Six of these sentinel events pertained to the retention of a foreign object post procedure. Investigation findings revealed failures in the surgical count procedures that were used. A further three sentinel events were the consequence of a medication error that resulted in the death of the patient. These medication clinical incidents were either due to a medication omitting to be prescribed or additional medication doses being given.

While sentinel event numbers remain relatively low and are similar to previous years, the numbers of “Other SAC 1” clinical incidents notified continues to increase. Mental health patients continue to make up a disproportionate amount of SAC 1 clinical incidents with 59 patients reported as missing or absent without leave in 2016/17. A further 30 SAC 1 clinical incidents reported the unexpected death of a mental health patient. Many of these deaths were patients being managed in the community and the causes of death attributed to both physical and mental health issues. What is interesting is that the number of deaths has decreased substantially from the 51 deaths of mental health patients reported in 2015/16.

There was a considerable increase in the number of SAC 1 falls incidents notified, up from 54 in the previous year to 79 in 2016/17. Of the 79 SAC 1 falls clinical incidents, 14 falls clinical incidents had an outcome of death.

What is encouraging is that the WA health system continues to be vigilant in undertaking falls risk assessment with 91% (n=5,004; see Standard 10; Falls) of patients who sustained a fall shown to have a falls risk assessment in place. Falls prevention is complex especially when dealing with patients who are cognitively impaired or physically compromised but this does not negate our responsibility in ensuring that patients, especially those most vulnerable, are assessed and reassessed so that appropriate falls prevention strategies are in place.

After investigation, 150 SAC 1 clinical incidents were found not to be preventable and therefore were approved for declassification. However, the learnings from the reporting and investigation of these incidents are considerable and should not be dismissed. In fact, it is a Clinical Incident Management Policy (2015) requirement that all clinical incident recommendations (including declassified SAC 1 incidents) must be implemented and evaluated.

We also need to embed safety and quality measures that drive reductions in clinical incidents across all SAC levels. For example, while on an individual basis a SAC 1 clinical incident may have many different contributory factors, state-wide aggregate analysis shows that communication and non-adherence to policy and practice are the main issues contributing to SAC 1 clinical incidents occurring. Given this evidence it would be prudent of the WA health system to continue to invest in programs and policies that enhance communication between health professionals and the patients they care for. Strengthening the relationships of multidisciplinary teams and use of communication tools such as ISOBAR are further examples of strategies that have been found to improve communication and therefore improve health care delivery.

Equally important is the evaluation of these recommendations to ensure that strategies to prevent clinical incidents are actually effective. In 2016, the PSSU released a state-wide Closing the Loop Program which focussed on enhancement of SAC 1 clinical incident management with regard to the development and implementation of recommendations and the effectiveness of recommendations.

The Closing the Loop Program included resources and processes to assist HSP with understanding and meeting the SAC 1 investigation and evaluation requirements including how to develop strong, sustainable recommendations and what methods can be used to evaluate if these recommendations are working to reduce preventable harm. To further support staff, the Patient Safety Surveillance Unit offered education sessions to all HSP.

Despite the extensive delivery of the Closing the Loop Program and the development and release of supporting resources to assist HSP staff, SAC 1 findings show that HSP require further assistance in the development of robust and realistic recommendations that can be effectively evaluated. Specifically, recommendations should directly address the root causes and contributory factors identified via the investigation process. Recommendations must then be implementable, specific, measurable and include who will be accountable for the implementation, be realistic to ensure the outcome goal can be achieved and stipulate clear timelines for completion and evaluation.

Recommendations are a critical component to ensuring that SAC 1 clinical incidents are prevented or minimised. A Recommendation/Action Hierarchy developed by the Veterans Affairs National Center for Patient Safety to assist in the development of actions that are more likely to succeed, has been adopted by the WA health system⁹. The Recommendations/Actions Hierarchy is a valuable tool that can assist staff in identifying and creating stronger recommendations/actions to ensure effective system change.

Using the principles of human factors, stronger recommendations/actions focus on modifying human behaviour to limit or prevent clinical incidents from occurring. For example, eliminating the use of universal adaptors and peripheral devices for medical equipment ensures that staff have access to intravenous tubing that can only be connected in the correct way.

While not all recommendations can be “strong” they need to be effective in making a change and sustaining that change. This is why quality improvement is an ongoing cycle so that weaker recommendations such as educating staff on reducing medication incidents can be implemented but also continually evaluated until sustained improvement is embedded.

Delivery of safe and excellent healthcare to each and every patient is our priority but this can only be done in a system that is committed to learning from clinical incidents to advance the safety of healthcare practice.

⁹ Action Hierarchy levels and categories are based on Root Cause Analysis Tools, VA National Center for Patient Safety, at: <https://www.patientsafety.va.gov/docs/joe/2014%20RCA%20Tools%20FINAL%20Formatted%20REV10%202016.pdf>



Standard 1: Governance for Safety and Quality

Good clinical governance is imperative in maintaining and improving the safety and quality of health care for patients. Clinical governance is “a system through which organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish”¹⁰. Such a system requires clear directions from leadership, strong policy and strategic decisions, robust oversight and monitoring of organisational performance and transparent accountability for HSP.

The enactment of the *Health Services Act 2016* on 1 July 2016 has led to a new governance model for the WA health system. The Director General and DOH have been established as the System Manager and the HSP have been established as independent statutory authorities.

Identifying and creating clear roles and responsibilities of the System Manager and the HSP is a key focus in this new devolved model of governance. The transition period of two years (until June 2018) has been allocated to define the DOH’s role as System Manager in clinical governance in safety and quality and how HSP will grow into their new level of independence.

Whilst the transition to the new governance model was taking place, Professor Mascie-Taylor was commissioned by the Director General to lead a review which focussed on proactive steps to continuously improve system-wide arrangements and priorities for safety and quality.

Over the next 12 months the DOH and the HSP, will work together to address the review recommendations. This process will further embed safety and quality as a high priority area throughout the WA health system.

The WA health system remains committed to delivering safe and high quality health care which is achieved through the provision of health care that is:

- evidence based
- governed by sound clinical practice
- efficient and focussed on preventing and reducing the impact of clinical incidents.

While prevention is always the best strategy, it is also important to investigate and address clinical incidents when they occur. The reporting and investigation of a clinical incident enables strategies to be put into place and evaluated to improve the safety of health care delivery and prevent another patient being harmed. To further enhance the clinical incident process, Severity Assessment Codes (SAC; see Figure 7), are used to guide incident analysis, action and escalation. Clinical incidents are categorised according to the harm caused to the patient by the delivery of health care and not the patient’s underlying condition/illness.

¹⁰ Scally G, Donaldson LJ. Clinical governance and the drive for quality improvement in the new NHS in England *BMJ* 1998; 317 61

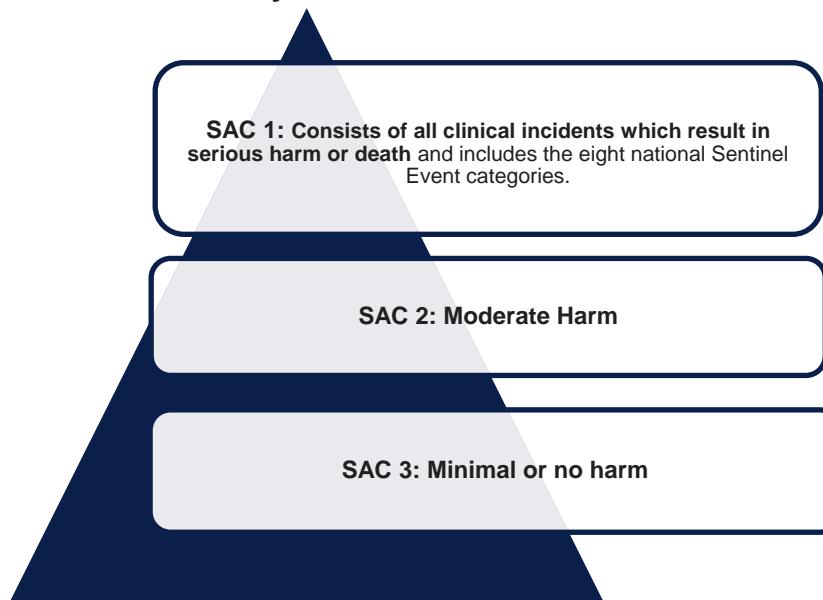
SAC 1 rating refers to clinical incidents resulting in serious harm/death/near miss, and includes the eight nationally reported clinical incidents known as sentinel events:

1. Procedure involving wrong patient or body part resulting in death or major permanent loss of function.
2. Suicide of a patient in an inpatient unit (or whilst on leave).
3. Retained instruments or other material after surgery requiring return to theatre.
4. Intravascular gas embolism resulting in death or neurological damage.
5. Haemolytic blood transfusion reaction resulting from ABO incompatibility.
6. Medication error resulting in death of a patient.
7. Maternal death associated with pregnancy, birth and the puerperium (occurring within 42 days post-delivery).
8. Infant discharged to wrong family or infant abduction.

SAC 2 rating refers to clinical incidents resulting in moderate harm/near miss.

SAC 3 rating refers to clinical incidents resulting in minimal/no harm/near miss.

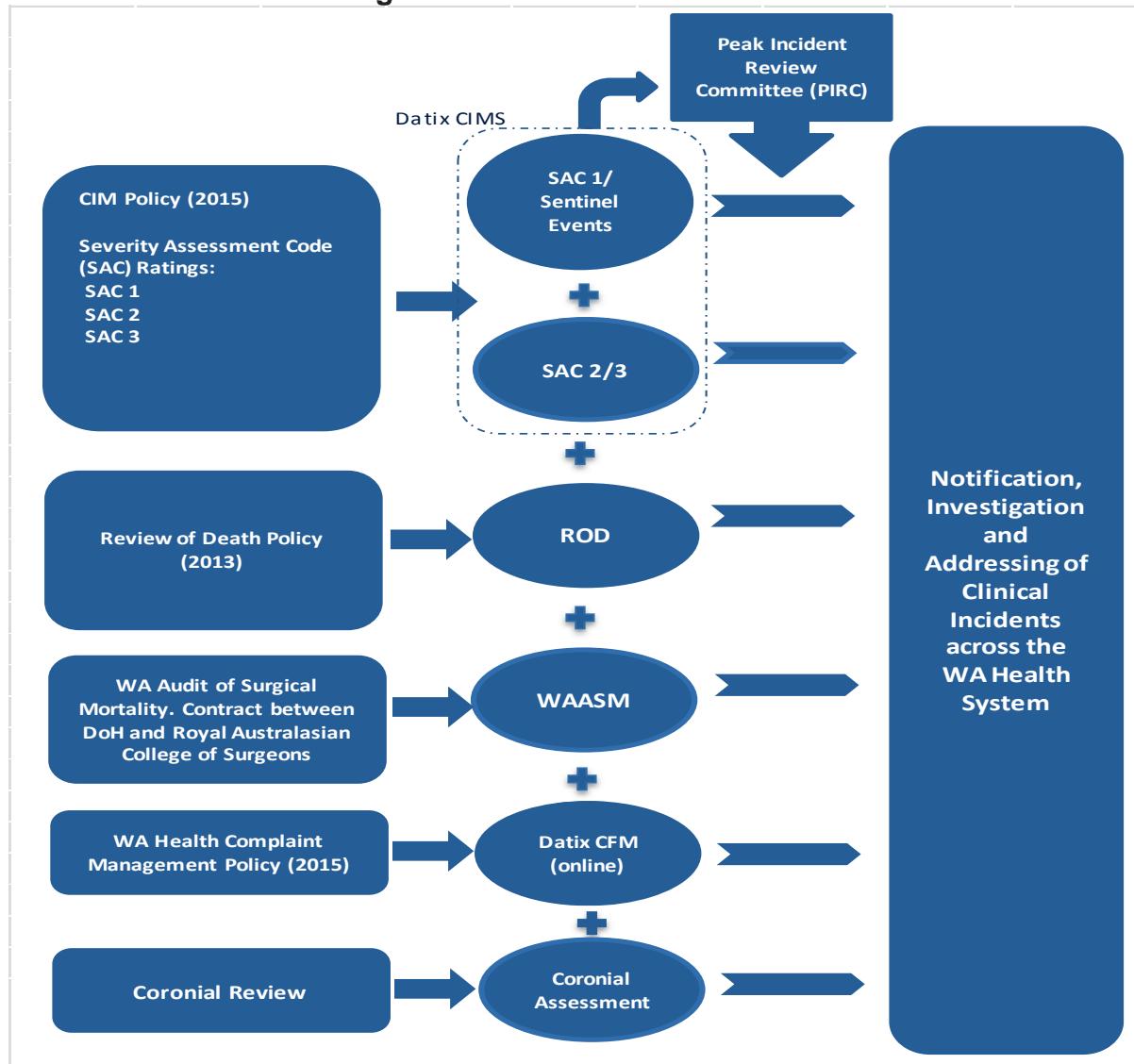
Figure 7: Clinical Incidents by SAC



When a clinical incident is identified, immediate action is taken to provide care to the patient involved. Once this has occurred a clinical incident form is completed to notify senior staff and enable an appropriate investigation to take place. The clinical incident is then assigned a SAC rating that guides the type of investigation method used (see Figure 8). Clinical incidents resulting in serious harm or death (SAC 1) require a detailed and rigorous investigation to be undertaken.

Analysis of the clinical incident is then undertaken which results in the implementation of recommendations to prevent the clinical incident from recurring. Furthermore, all recommendations must be evaluated to ensure that the quality improvement strategies are effective in making health care delivery safer.

Figure 8: Clinical Incident Management Processes



Clinical incident data is then used at a local and state-wide level to review trends and identify areas where practice improvements can be achieved. Complementing this annual report is the internal release of the Datix CIM Quarterly Report and the quarterly Check-Up Report which is a one page poster report that focuses on specific state-wide clinical incident trends. These reports are available to WA health system staff at: <http://intranet.health.wa.gov.au/osqh/reports/>.

Additional strategies to further strengthen the clinical incident management process include the WA Review of Death (ROD) Policy¹¹ and the WA Audit of Surgical Mortality (WAASM). The purpose of ROD and WAASM is to systematically review patient deaths to identify those that may have been preventable so that lessons can be learnt. These separate state-wide review processes (SAC 1 clinical incident management, ROD and WAASM) ensure that clinical incidents resulting in a patient's death are captured, notified and investigated. All health related findings from coronial inquests are reviewed and assessed, with recommendations considered by HSP and implemented where appropriate. Consumer feedback is also an integral component of CIM as it informs the provision of patient centred care.

¹¹ The WA Review of Death Policy (2013) available at: http://www.health.wa.gov.au/circularsnew/circular.cfm?Circ_ID=12990

Considerable initiatives and resources have been invested to improve patient safety within the WA health system. The overarching goal is to address clinical incidents at the local and system level, analyse contributory factors, identify, implement and evaluate strategies to prevent the recurrence of clinical incidents. Resources to guide clinical incident management include the CIM Policy¹² and CIM Toolkit, which are regularly updated to keep abreast with state and national changes.

The CIM Policy also requires the provision of evidence that SAC 1 recommendations have been implemented and evaluated. In 2016 the PSSU developed resources and processes to further support HSP in the delivery of these requirements. This became known as the “Closing the Loop” Program. The focus of the Closing the Loop Program is to progress and enhance two components of SAC 1 clinical incident management, which are to:

1. Develop and implement recommendations and;
2. Evaluate recommendations.

This is seen by the PSSU as the next step in the maturation of the safety and quality culture within the WA health system with regard to the CIM process and is an integral part of ensuring that lessons are learnt from clinical incidents so that improvements in health care delivery and patient care are achieved.



¹² Clinical Incident Management Policy (2015) available at: http://ww2.health.wa.gov.au/Corporate/Articles/A_E/Clinical-incident-management-system

Standard 3: Preventing and Controlling Healthcare Associated Infections

Standard 3 of the National Standards refers to preventing and controlling Healthcare Associated Infections (HAI) and specifically refers to systems and strategies that prevent and manage HAI. In the 2016/17 reporting period there were 835 HAI clinical incidents notified of which 765 were confirmed with a further 70 HAI clinical incidents awaiting confirmation. Healthcare associated infections accounted for 2.8% of all clinical incidents reported in this time period. Females reported more HAI (n=382; 54%; missing n=57). Ages of patients with a HAI ranged from 0-100 years with a mean age of 55 years (SD 24 years).

The treating specialties which reported HAI clinical incidents most frequently are listed in Figure 9. These five specialties accounted for 47.3% (n=362) of all HAI clinical incidents reported in this 12 month time period. The General Medicine specialty reported the most number of HAI clinical incidents (n=125; 16.3%).

Figure 9: Percentage of HAI Clinical Incidents by Top Five Treating Specialties for 2016/17

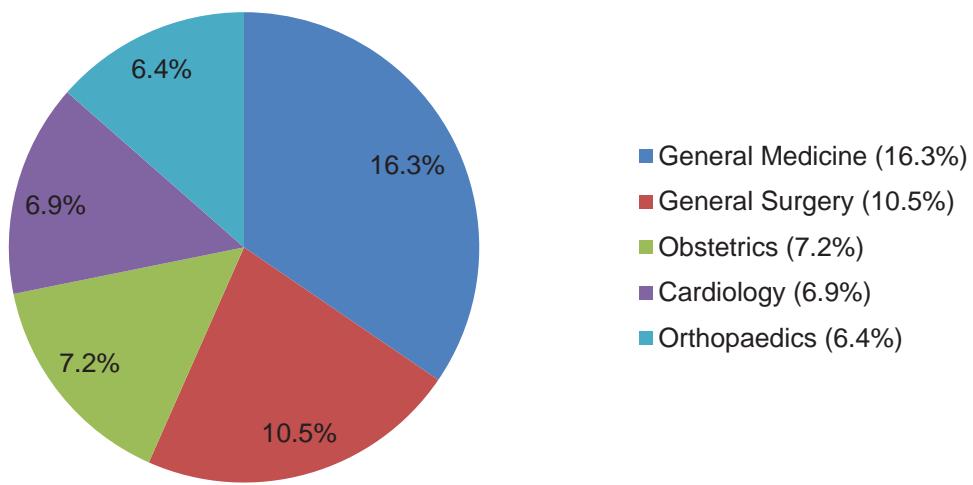
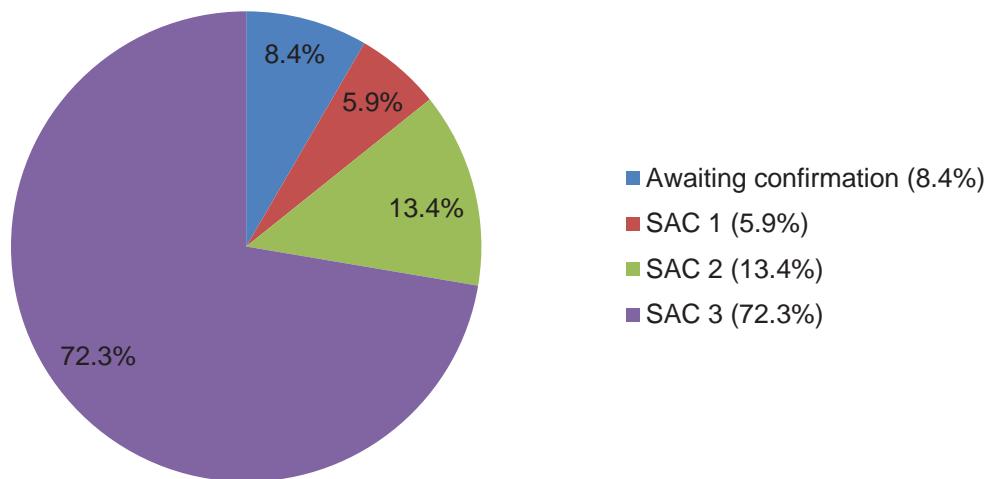


Figure 10 highlights HAI by SAC rating with the majority of HAI clinical incidents having a SAC rating of 3 (n=604; 72.3%). Fifty HAI cases were rated as SAC 1 clinical incidents (5.9%). The majority (n=26; 52%) of SAC 1 clinical incidents related to a blood stream infection stemming from the insertion of an intravenous device, with the next most frequent SAC 1 HAI clinical incidents identified as wound infections (n=15; 30%).

Figure 10: Percentage of HAI Clinical Incidents by SAC Rating for 2016/17



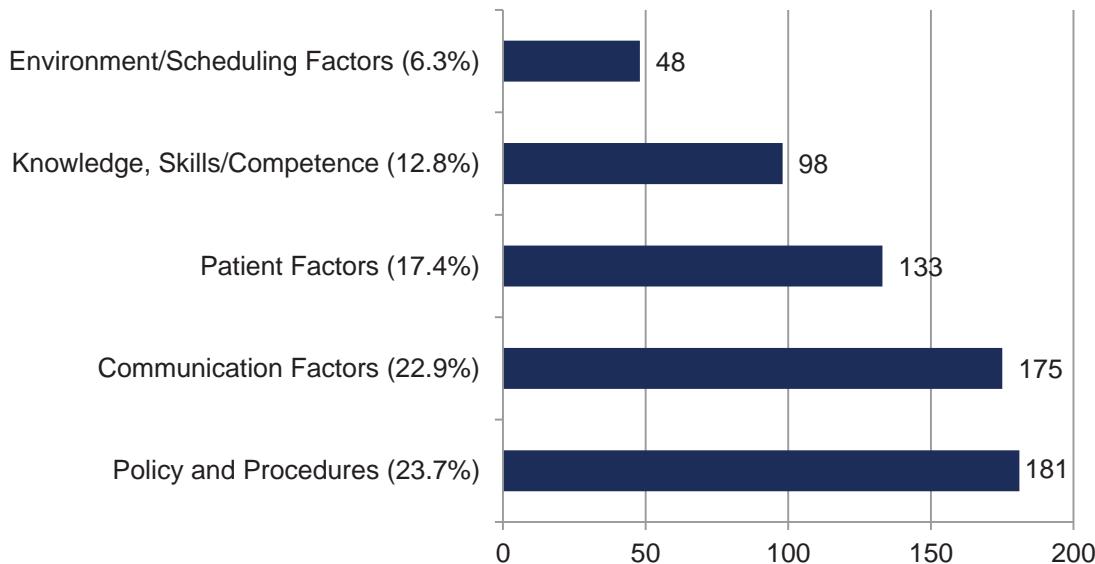
Findings revealed that the majority (n=368; 48.1%) of confirmed HAI clinical incidents were categorised as established processes/protocols not being followed or adhered to (see Table 9). The top five most frequent HAI clinical incidents categories accounted for 96.1% (n=736) of confirmed HAI incidents reported for the 2016/17 period.

Table 9: Frequency and Percentage of Top Five Tier Three Confirmed HAI Clinical Incidents Categories for 2016/17

Tier 3 HAI Categories	(n)	(%)
Established processes/protocols not followed	368	48.1
Contamination other than sterilisation	245	32.0
Breaches in sterilisation technique	58	7.6
Processes/protocols not established	40	5.2
Delayed diagnosis	25	3.2
Total	736	96.1

For HAI clinical incidents, 83% (n=635) of contributory factors were captured in five main categories (see Figure 11). The most common contributory factor was policy and procedures not being followed which were cited in 23.7% (n=181) of all HAI clinical incidents.

Figure 11: Frequency and Percentage of the Top Five Contributory Factors for HAI Clinical Incidents for 2016/17



Please note that one clinical incident may have more than one contributory factor.

Key Messages: Healthcare Associated Infections

Healthcare associated infections can cause serious morbidity and mortality and as such prevention of HAI is an important determinant to ensuring the safety and well-being of our acutely and chronically ill patients.

The majority (n=26; 52%) of SAC 1 clinical incidents related to a blood stream infection stemming from the insertion of an intravenous device, with the next most frequent SAC 1 HAI clinical incidents identified as wound infections (n=15; 30%).

To assist in preventing infection stemming from the insertion of an intravenous device, staff must adhere to the strict protocols that are required for the review and replacement of intravenous devices.

Also targeted approaches to reduce and prevent HAI need to keep focussing on the adoption of strong hand hygiene practices, continuous review of intravenous devices and the appropriate use of antimicrobial therapy.

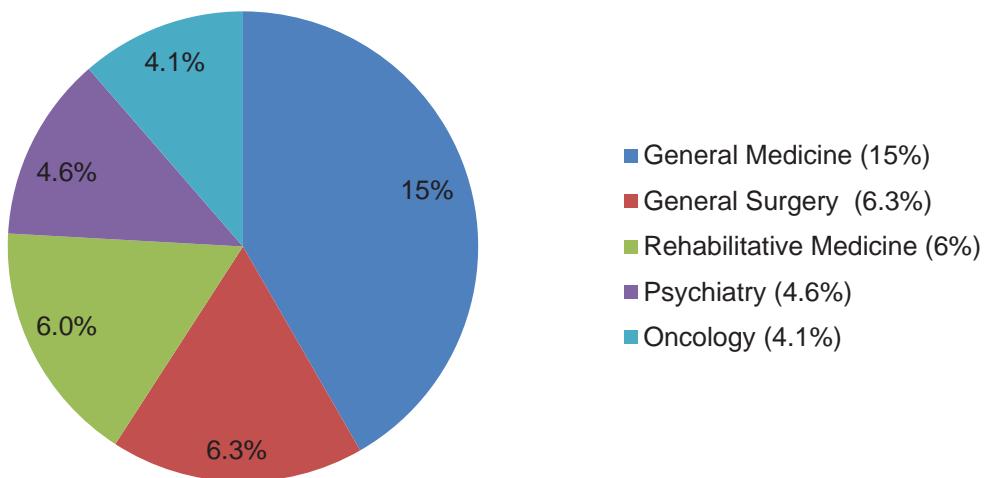
Standard 4: Medication Clinical Incidents

Standard 4 of the National Standards refers to medication safety and “describes systems and strategies to ensure clinicians safely prescribe, dispense and administer appropriate medicines to informed patients” (ACSQHC, 2013). Medicines are the most frequent form of treatment used in health care and as such also have a higher incidence of clinical incidents. Reasons for medication incidents are varied but include prescribing issues, timing of medication administration, omission and overdose of medications. It is therefore, integral that effective system strategies are in place to prevent medication incidents and ensure the delivery of safe care of all our patients. Unfortunately, medication incidents continue to occur despite improvements in standardisation and systematisation of medication procedures. Medication clinical incidents are captured under the Tier One category within Datix CIMS which includes medications, biologics and fluids.

In the 2016/17 reporting period there were 6,996 medication incidents reported and 6,445 medication clinical incidents were confirmed, with the remainder awaiting confirmation. Medication clinical incidents accounted for 23.2% of all clinical incidents reported in this time period. Females accounted for 50.7% (n=2,970; missing n=593) of this sample. Ages ranged from 0-102 years with a mean age of 55 years (SD 27 years).

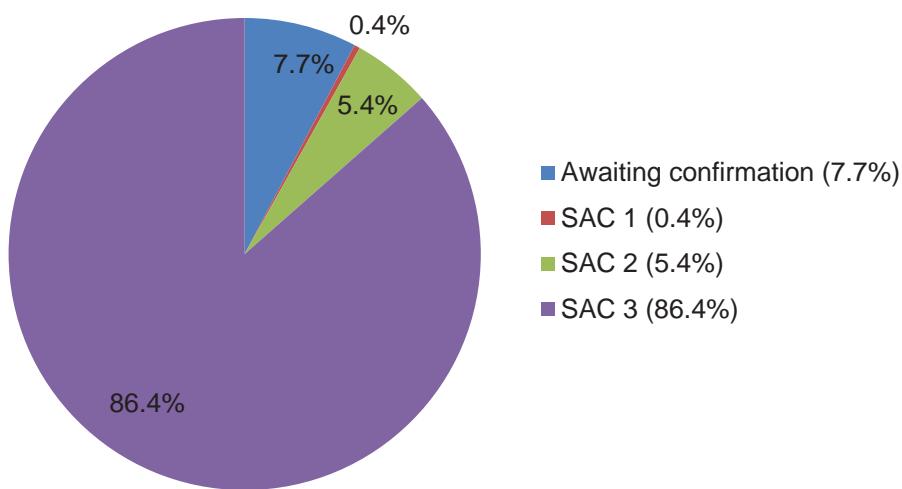
Five specialties accounted for 36% (n=2,322) of all medication clinical incidents reported in this 12 month time period. The General Medicine specialty reported the most number of medication clinical incidents (n=968; 15%; See Figure 12).

Figure 12: Percentage of Medication Clinical Incidents by Top Five Treating Specialties for 2016/17



The majority of confirmed medication clinical incidents (n=6,043; 86.4%) were categorised as SAC 3 clinical incidents with the patient sustaining either minor /no harm (see Figure 13). There were 31 SAC 1 clinical incidents of which three incidents resulted in the death of the patient.

Figure 13: Percentage of Medication Clinical Incidents by SAC Rating for 2016/17



Findings revealed that the most frequent confirmed medication clinical incidents were categorised as incorrect medication dose (n=848; see Table 10). The top five most frequent medication clinical incidents categories accounted for 43.1% (n=2,781) of all confirmed medication incidents reported for the 2016/17 period.

Table 10: Frequency and Percentage of Top Five Tier Three Confirmed Medication Clinical Incidents Categories for 2016/17

Tier Three Medication Categories	(n)	(%)
Incorrect medication dose	848	13.1
Omitted medication	570	8.8
Failure to administer	544	8.4
Incorrect medication/fluid	496	7.7
Extra medication dose given	323	5.0
Total	2,781	43.1

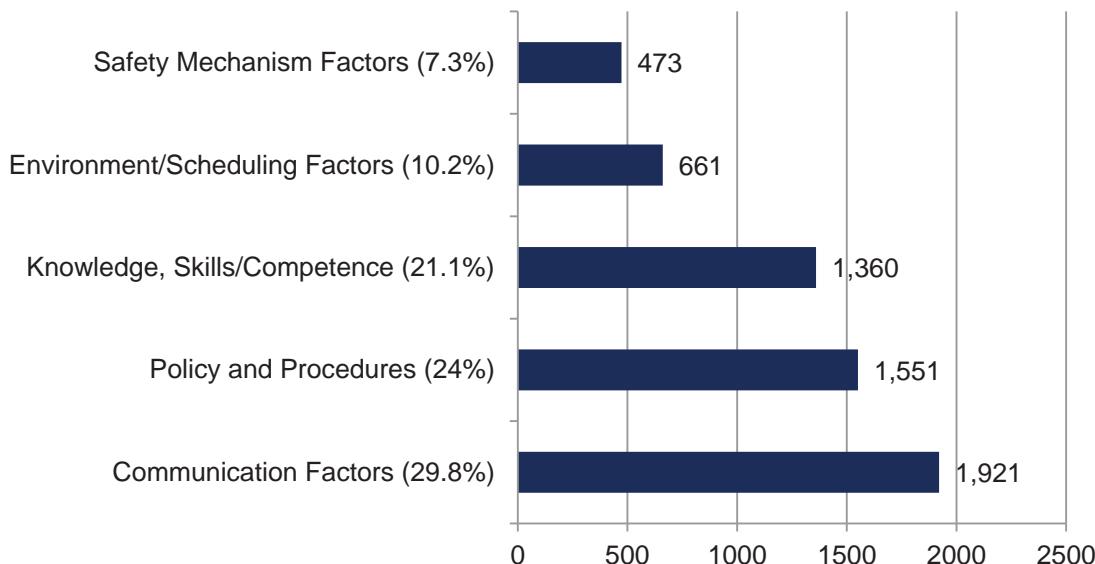
The ten most frequent types of medication involved in a clinical incident accounted for 55.4% (n=3,575) of all medication incidents. Opioid analgesia (n=775; 12%) was the most frequently reported medication type followed by antibiotics (n=705; 10.9%; see Table 11).

Table 11: The Ten Most Frequent Types of Medications Involved in Clinical Incidents 2016/17

Top 10 Medication Categories	(n)	(%)
Opioid analgesics (opioid based pain relievers)	775	12.0
Anti-bacterials (antibiotics)	705	10.9
Anti-coagulants (blood thinning medications)	418	6.5
Insulins (medications used for diabetes)	369	5.7
Anti-psychotics (medications for psychosis)	255	4.0
Non-opioid analgesics (non-opioid pain relievers)	231	3.6
Anti-hypertensives (medications for high blood pressure)	229	3.5
Anti-epileptics (medications for epilepsy)	219	3.4
Medications for anxiety and sleep disorders	219	3.4
Medications for electrolyte imbalances	155	2.4
Total	3,575	55.4

For medication clinical incidents, 92.4% (n=5,966) of contributory factors were captured in five main categories (see Figure 14). The most common contributory factor was communication factors which were cited in 29.8% (n=1,921) of all medication clinical incidents. Not following policy/guidelines or procedure was the next frequently reported contributory factor (n=1,551; 24%).

Figure 14: Frequency and Percentage of the Top Five Contributory Factors for Medication Clinical Incidents for 2016/17



Please note that one clinical incident may have more than one contributory factor.

Key Messages: Medication Clinical Incidents

Medication safety is an integral process in health care delivery but it is also a complex process that unfortunately still results in unnecessary errors occurring. In 2016/17 medication clinical incidents accounted for nearly a quarter of all clinical incidents reported.

Patients given the wrong medication dosage was the most frequent medication incident category reported, followed by patients not being given their prescribed medication. Not giving the correct dose of medication resulted in the serious harm of 31 patients, with three of these incidents resulting in the death of our patients.

Gaining a better understanding of the determinants that are causing poor communication and preventing staff from adhering to correct medication administration policy is required if medication errors are to be prevented. These determinants need to be captured and analysed not only at the local level but also at a WA health system level, if effective mitigating strategies are to be implemented.

While system and environmental factors can and do impact on medication incidents occurring, busy clinical staff still need to focus on executing the six rights of medication administration, for every patient and every time.



Standard 5: Patient Identification Clinical Incidents

Standard 5 of the National Standards refers to patient identification and procedure matching. The intent of which is to “describe the systems and strategies to identify patients and correctly match their identity to the correct treatment” (ACSQHC, 2013).

Patient identification clinical incidents are captured under Tier Three categories within Datix CIMS which include¹³:

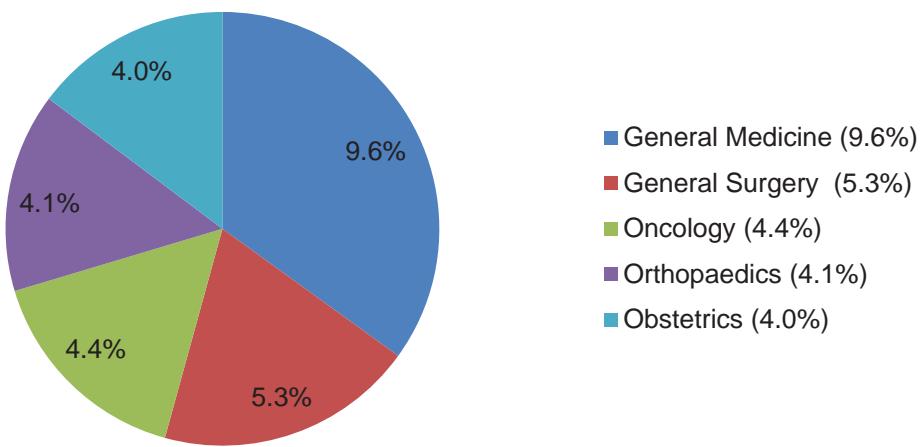
- Product mislabelled
- Product mislabelled and incorrect patient
- Investigation performed on incorrect patient
- Preparation of patient for investigation insufficient, incorrect or incomplete
- Ambiguous incorrect or incomplete documentation
- Illegibility of documentation
- Incorrect patient
- Documentation temporarily unavailable or delay in accessing
- Incorrect treatment or procedure
- Medication dispensed to incorrect patient
- Treatment or procedure performed on incorrect body part/site.

In the 2016/17 reporting period 3,607 patient identification clinical incidents were notified, of which 3,284 clinical incidents were confirmed, and the remainder (n=323) were awaiting confirmation. Patient identification clinical incidents accounted for 12% of all clinical incidents reported in this time period. Females accounted for 51.9% (n=1,339; missing n=705) of this sample. Ages ranged from 0-104 years with a mean age of 47 years (SD 28 years).

¹³ The Datix CIMS type of clinical incident classification list was reviewed by the State Datix Committee with codes relevant to national standards 5, 6, and 9 agreed. The classification list was updated in April 2017, with updated coding applied across the 2016/17 year. Therefore comparison of data to previous periods may not be possible.

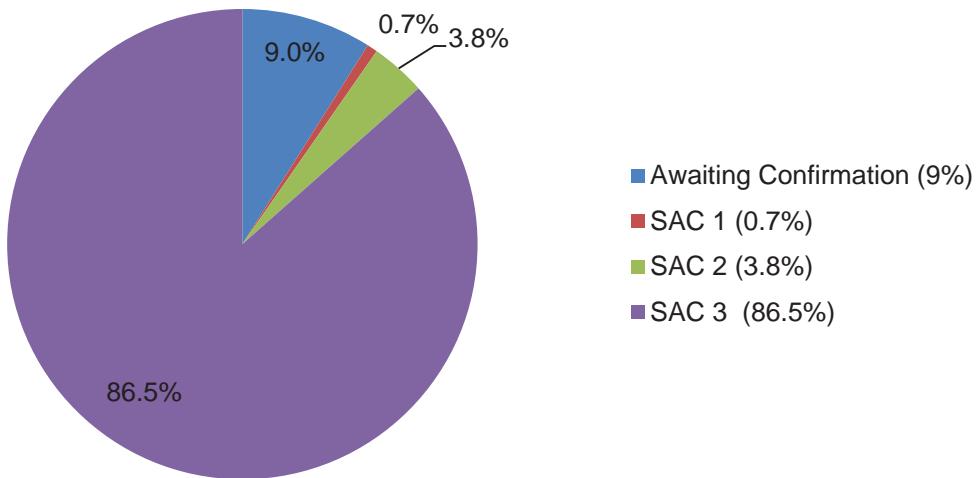
The treating specialties which reported patient identification clinical incidents more frequently are listed in Figure 15. These five specialties accounted for 27.4% (n=901) of all patient identification incidents reported in this 12 month time period. General medicine patients reported the most frequent patient identification clinical incidents (n=315; 9.6%).

Figure 15: Percentage of Patient Identification Clinical Incidents by Top Five Treating Specialty for 2016/17



The majority (n=3,121; 86.5%) of patient identification clinical incidents were categorised as SAC 3 clinical incidents with the patient sustaining either minor harm or no harm (see Figure 16).

Figure 16: Percentage of Patient Identification Incidents by SAC Rating for 2016/17



Twenty six patient identification clinical incidents were classified as a SAC 1 clinical incident. Eight of these incidents were identified as near misses with documentation errors identified before the patient was treated. The remaining SAC 1 clinical incidents consisted of investigations performed on an incorrect patient, incorrect treatment/procedure given or ambiguous/incorrect or incomplete documentation.

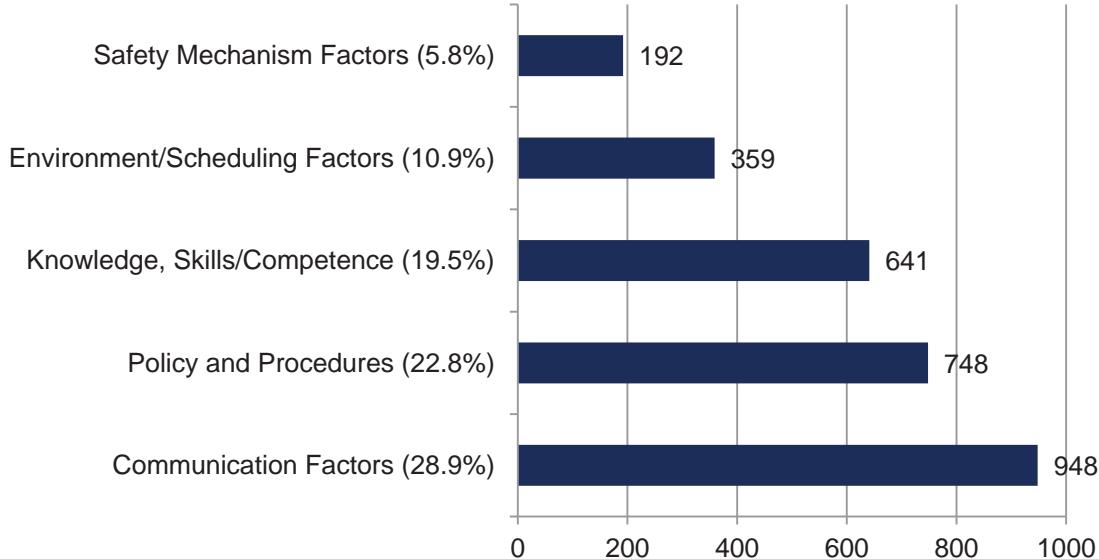
Table 12 shows that ambiguous, incorrect or incomplete documentation (n=1,577; 48%) was the most frequently mentioned category of patient identification clinical incidents.

Table 12: Frequency and Percentage of the Top Five Tier Three Patient Identification Categories for 2016/17

Patient Identification Categories	(n)	(%)
Ambiguous/incorrect or incomplete documentation	1,577	48.0
Incorrect patient documentation	822	25.0
Documentation unavailable or access temporarily delayed	402	12.2
Illegibility of documentation	189	5.8
Incorrect treatment/procedure	152	4.6
Total	3,142	95.7

For patient identification clinical incidents, 87.9% (n=2,888) of contributory factors were captured in five main categories (see Figure 17). The most common contributory factor was communication factors which were cited in 28.9% (n=948) of all patient identification clinical incidents. Not following policy/guidelines or procedure was the next most frequently reported contributory factor (n=748; 22.8%).

Figure 17: Frequency and Percentage of Top Five Contributory Factors for Patient Identification Clinical Incidents for 2016/17



Please note that one clinical incident may have more than one contributory factor.

Key Messages: Patient Identification

Fortunately, most patient identification incidents were caught before any patients were harmed. Unfortunately, there were instances when our safety checks broke down resulting in 3,284 confirmed patient identification and procedure matching incidents being reported. Of these, the majority (n=3,121; 86.5%) of patient identification clinical incidents were categorised as SAC 3 clinical incidents with the patient sustaining either minor harm or no harm. However, 26 patient identification clinical incidents were classified as a SAC 1 clinical incident. Eight of these incidents were identified as near misses with documentation errors identified before the patient was treated. The remaining SAC 1 clinical incidents consisted of investigations performed on an incorrect patient, incorrect treatment/procedure given or ambiguous/incorrect or incomplete documentation.

A zero tolerance to incorrect patient identification is fundamental to ensuring that the health system works efficiently and safely. The WA health system has many system factors designed to prevent identification errors from occurring, which include patient identification check lists, automated bar coding of patient details and medications etc.

While these tools can help prevent clinical incidents they do not replace the need for due diligence to be undertaken when treatment is given. By doing this we will ensure that health care is delivered to the correct patient every time.



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Standard 6: Clinical Handover

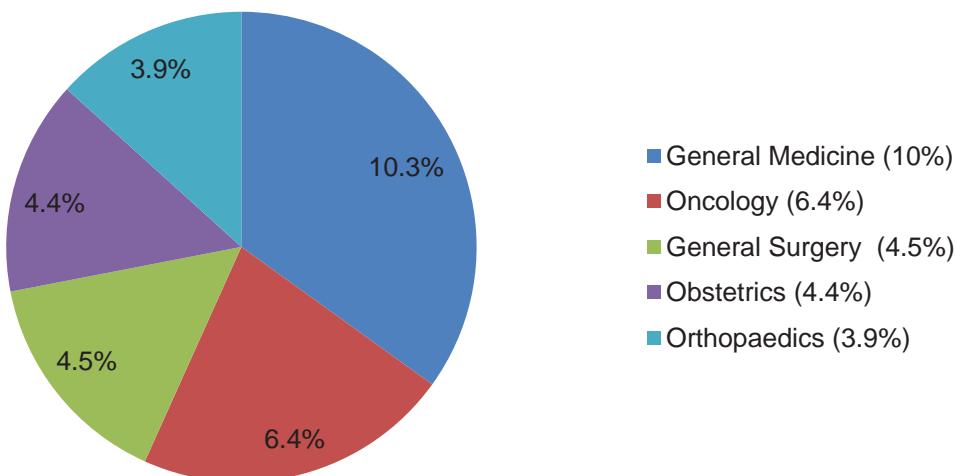
Standard 6 of the National Standards refers to clinical handover which describes “the systems and strategies for effective clinical communication whenever accountability and responsibility for a patient’s care is transferred” (ACSQHC, 2013). The Datix Clinical Incident Management classification system was reviewed to identify responses that would best capture clinical handover incidents and includes the following categories¹⁴:

- Incorrect/insufficient/delayed handover
- Discharge processes being inappropriate/insufficient/incomplete
- Medical records/forms/bar codes/labels/results/reports being unavailable/ ambiguous/ incorrect/incomplete/illegible
- Patient discharge information/instructions being unavailable/ambiguous/ incorrect/incomplete/illegible
- Health care referrals/discharge correspondence being unavailable/ambiguous/ incorrect/incomplete/illegible.

In the 2016/17 reporting period 2,356 clinical handover clinical incidents were notified, of which 2,114 clinical incidents were confirmed, and the remainder (n=242) were awaiting confirmation. Clinical handover incidents accounted for 7% of all clinical incidents reported in this time period. Females accounted for 53% (n=922; missing n=375) of this sample. Ages ranged from 0-104 years with a mean age of 44 years (SD 29 years).

The treating specialties which reported clinical handover clinical incidents more frequently are listed in Figure 18. These five specialties accounted for 29.5% (n=624) of all clinical handover clinical incidents reported in this 12 month time period. The General Medicine specialty reported the most number of clinical handover clinical incidents (n=218; 10%).

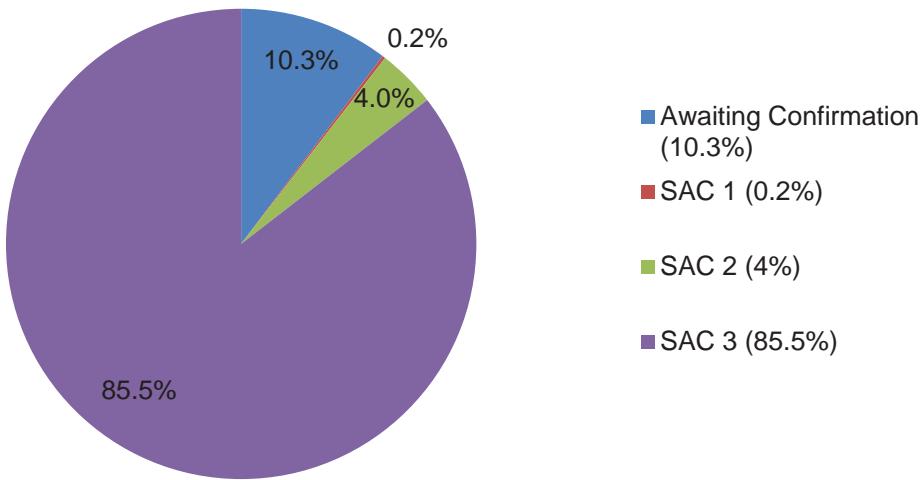
Figure 18: Percentage of Clinical Handover Clinical Incidents by Top Five Treating Specialties for 2016/17



¹⁴ The Datix CIMS type of clinical incident classification list was reviewed by the State Datix Committee with codes relevant to national standards 5, 6, and 9 agreed. The classification list was updated in April 2017, with updated coding applied across the 2016/17 year. Therefore comparison of data to previous periods may not be possible.

Findings revealed that the most frequent clinical handover incidents were categorised as SAC 3 clinical incidents (n=2,014; 85.5%; see Figure 19). There were five clinical handover SAC 1 incident reports which involved insufficient handover of patients' condition or inappropriate transfers /supervision.

Figure 19: Percentage of Clinical Handover Clinical Incidents by SAC Rating for 2016/17



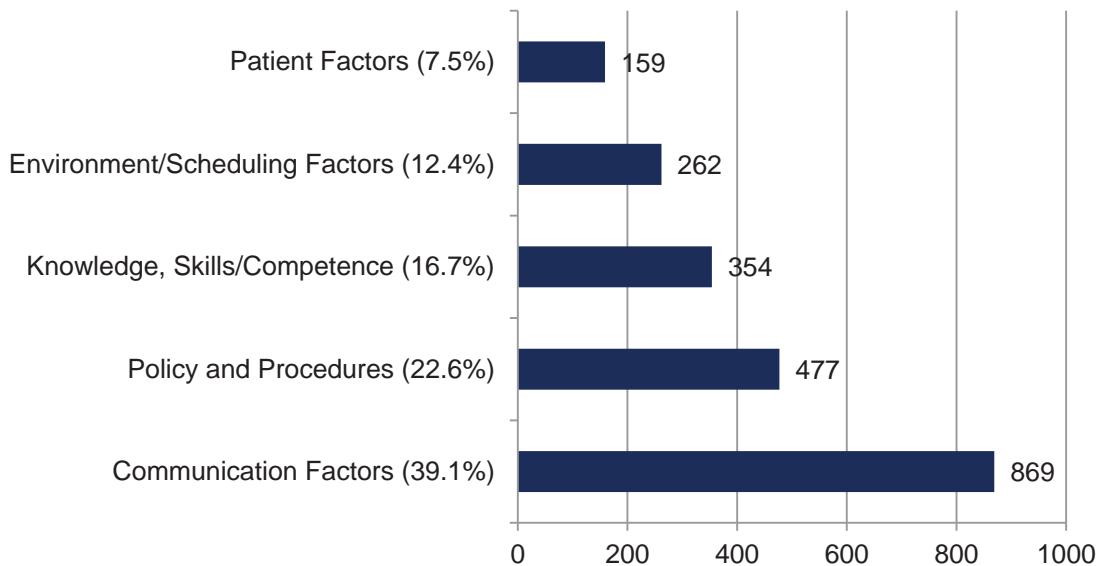
The top five most frequent clinical handover clinical incidents categories accounted for 92.1% (n=1,946) of all confirmed clinical handover incidents reported for the 2016/17 period. Ambiguous/incorrect or incomplete handover was the most frequently identified clinical handover category accounting for 57.9% (n=1,225) of clinical incidents reported in this period (see Table 13).

Table 13: Frequency and Percentage of Top Five Tier Three Confirmed Clinical Handover Clinical Incidents Categories for 2016/17

Tier 3 Clinical Handover Categories	(n)	(%)
Ambiguous/incorrect/incomplete	1,225	57.9
Temporarily unavailable/delay in accessing	292	13.8
Between health care professionals insufficient/incorrect/incomplete	194	9.2
Incorrect/insufficient handover	172	8.1
Discharge insufficient/incomplete	63	3.0
Total	1,946	92.1

For clinical handover clinical incidents, 2,207 of contributory factors were captured in five main categories (see Figure 20). The most common contributory factor was communication factors which were cited in 39.1% (n=869) of all clinical handover clinical incidents. Not following policy and procedures was the next frequently reported contributory factor (n=477; 22.6%).

Figure 20: Frequency and Percentage of the Top Five Contributory Factors for Clinical Handover Clinical Incidents for 2016/17



Please note that one clinical incident may have more than one contributory factor.

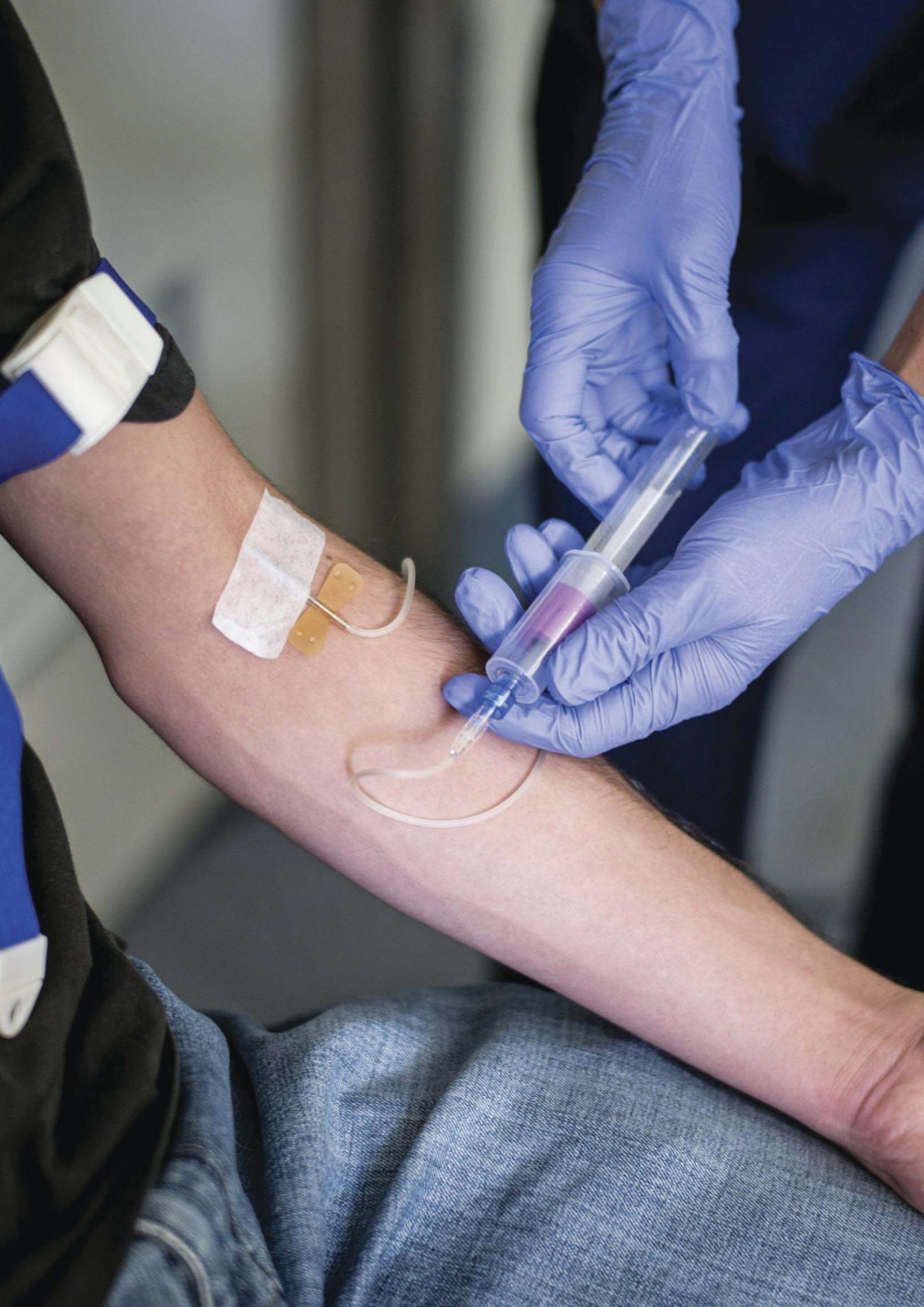
Key Messages: Clinical Handover

Health care delivery can be extremely complex and requires the effective coordination and communication of patient care, if clinical incidents are to be prevented. Clinical handover is an integral component in both care delivery and patient safety.

The WA health system has adopted a standardised approach to clinical handover which requires that staff utilise ISOBAR (Identify, Situation, Observations, Background, Agree to a Plan, Readback) as a routine process to handover clinical information.

While clinical handover incidents account for just 7% (n=2,114) of all clinical incidents it should be noted that communication is cited as a significant factor in all clinical incidents across all national health standard categories.

Regardless of how patient information is communicated (i.e. verbally, written hard copy or via electronic copy), it is essential that the information is clear, concise, accurate and apportions appropriate responsibility.



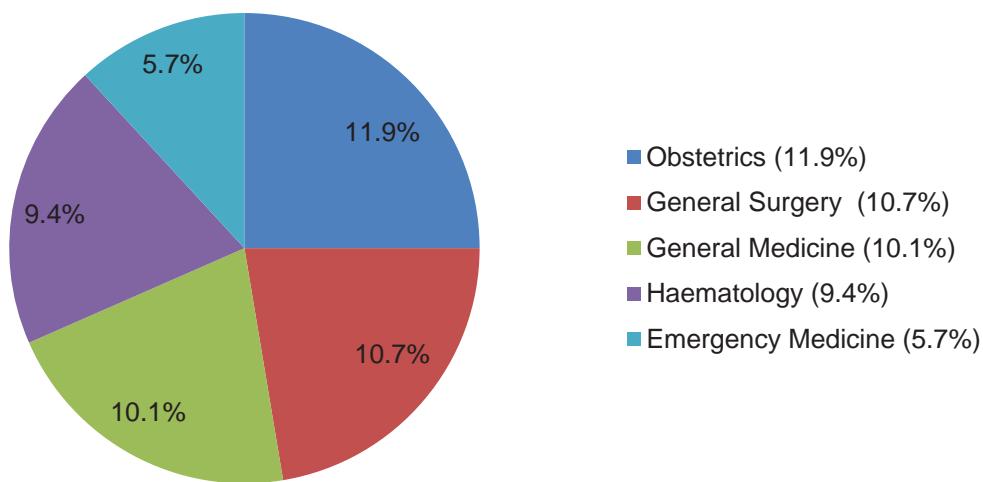
Standard 7: Blood and Blood Products

Standard 7 of the National Standards refers to “systems and strategies for the safe, effective and appropriate management of blood and blood products” (ACSQHC, 2013). In the 2016/17 reporting period there were 180 blood and blood product clinical incidents notified with 159 clinical incidents confirmed, and a further 21 awaiting confirmation. Blood and blood product clinical incidents accounted for 0.6% of all clinical incidents reported in this time period.

Females accounted for 56.3% (n=85; missing n=8) of this sample. Ages ranged from 0-94 years with a mean age of 54 years (SD 25 years).

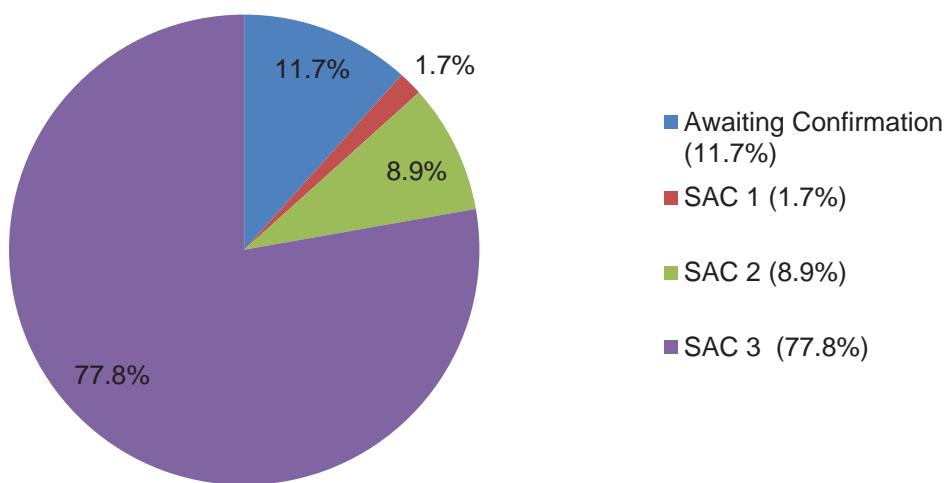
The treating specialties which reported blood and blood product clinical incidents more frequently are listed in Figure 21. These five specialties accounted for 47.8% (n=76) of all blood and blood products clinical incidents reported in this 12 month time period. The Obstetric specialty reported the most number of blood and blood products clinical incidents (n=19; 11.9%) followed by the General Surgery specialty (n=17; 10.7%).

Figure 21: Percentage of Blood and Blood Products Clinical Incidents by Top Five Treating Specialties for 2016/17



Findings revealed that the most frequent confirmed blood and blood products clinical incidents were categorised as SAC 3 clinical incidents (77.8%; n=140; see Figure 22). Of the three SAC 1 clinical incidents which involved blood or blood products, two incidents involved the patient receiving an incompatible blood transfusion and one SAC 1 clinical incident involved the screening processes used for transfusion.

Figure 22: Percentage of Blood and Blood Products Clinical Incidents by SAC Rating for 2016/17



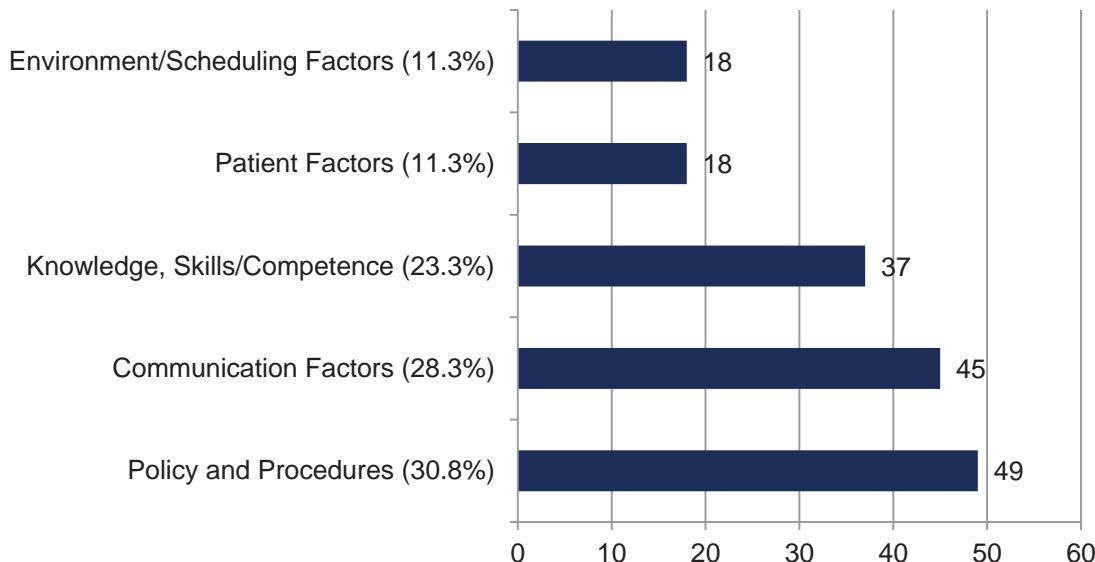
The top five most frequent blood and blood products clinical incidents categories accounted for 40.9% (n=65) of all confirmed blood and blood products clinical incidents reported for the 2016/17 period (see Table 14). Blood or blood products that were either not given when indicated or were delayed in being given accounted for 10.7% (n=17) of clinical incidents followed by blood or blood products given at the incorrect rate or frequency (n=16; 10.1%).

Table 14: Frequency and Percentage of Top Five Tier Three Confirmed Blood and Blood Products Clinical Incidents Categories for 2016/17

Tier Three Blood and Blood Products Categories	(n)	(%)
Not given when indicated or delayed	17	10.7
Incorrect rate or frequency	16	10.1
Incorrect dose or number of units	12	7.5
Failure/insufficient/incomplete monitoring of patient	11	6.9
Insufficient/incorrect storage/refrigeration	9	5.7
Total	65	40.9

The most common contributory factor for blood and blood products clinical incidents was policy and procedures factors (n=49; 30.8%) followed by communication factors (n=45; 28.3%; see Figure 23).

Figure 23: Frequency and Percentage of the Top Five Contributory Factors for Blood and Blood Products Clinical Incidents for 2016/17



Please note that more than one contributory factor can be assigned to each clinical incident.

Key Messages: Blood and Blood Products

Blood transfusions can save lives but the incorrect administration of blood or blood products can cause serious harm or death to patients. That is why haemovigilance and the reporting and management of adverse events is so important.

In 2016/17 there were 159 confirmed clinical incidents reported which involved blood or blood products. Three SAC 1 incidents were identified with two patients given the wrong blood. Of these, one patient had a severe transfusion reaction while the other patient had a mild reaction. The third patient was found to have had incorrect/insufficient screening and also suffered a serious reaction.

The administration of blood and blood products requires strict protocols to be followed so that patients are protected and monitored from the moment of administration to beyond the completion of the transfusion. Adherence to such protocols will ensure that our patients are receiving safe and efficacious treatment.

Standard 8: Pressure Injury Clinical Incidents

In 2016, the National Pressure Ulcer Advisory Panel redefined pressure injury definitions. “A pressure injury is localized damage to the skin and underlying soft tissue usually over a bony prominence or related to a medical or other device. The injury can present as intact skin or an open ulcer and may be painful. The injury occurs as a result of intense and/or prolonged pressure or pressure in combination with shear. The tolerance of soft tissue for pressure and shear may also be affected by microclimate, nutrition, perfusion, co-morbidities and condition of the soft tissue.”¹⁵ Pressure injuries in adults occur most commonly on the lower leg or sacral area but can develop anywhere on the body.

There are several stages of pressure injury development and include:

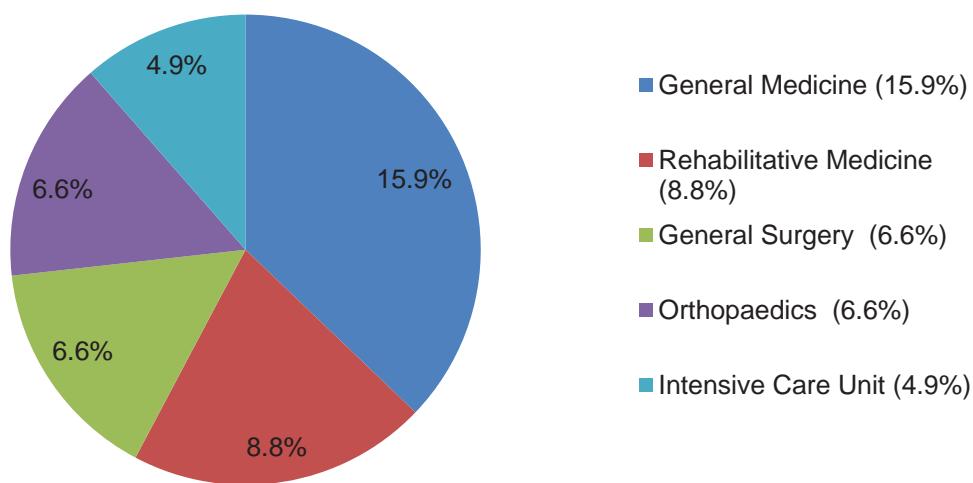
- Stage I: “Intact skin with non-blanchable redness of a localized area.”
- Stage II: “Partial-thickness loss of skin with exposed dermis. The wound bed is viable, pink or red, moist, and may also present as an intact or ruptured serum-filled blister.”
- Stage III: “Full-thickness loss of skin, in which adipose (fat) is visible in the ulcer and granulation tissue and epibole (rolled wound edges) are often present. Slough and/or eschar may be visible.”
- Stage IV: “Full-thickness skin and tissue loss with exposed or directly palpable fascia, muscle, tendon, ligament, cartilage or bone in the ulcer. Slough and/or eschar may be visible. Epibole (rolled edges), undermining and/or tunnelling often occur.”
- Unstageable Pressure Injury: “Full-thickness skin and tissue loss in which the extent of tissue damage within the ulcer cannot be confirmed because it is obscured by slough or eschar. If slough or eschar is removed, a Stage 3 or Stage 4 pressure injury will be revealed.”
- Deep Tissue Pressure Injury: Persistent non-blanchable deep red, maroon or purple discolouration. Intact or non-intact skin with localized area of persistent non-blanchable deep red, maroon, purple discolouration or epidermal separation revealing a dark wound bed or blood filled blister.”¹¹

In the 2016/17 reporting period there were 1,431 pressure injuries notified with 1,326 pressure injury clinical incidents confirmed, with a further 105 pressure injury clinical incidents awaiting confirmation. Pressure injury clinical incidents accounted for 4.7% of all clinical incidents reported in this time period. Males were reported to have more pressure injuries (n=722; 55.8%; missing n=32) and ages ranged from 0-102 years with a mean age of 68 years (SD 23 years).

The treating specialties which reported pressure injury clinical incidents more frequently are listed in Figure 24. These five specialties accounted for 42.8% (n=568) of all pressure injury clinical incidents reported in this 12 month time period. The General Medicine specialty reported the most pressure injuries (n=211; 15.9%) compared to any other treating specialty.

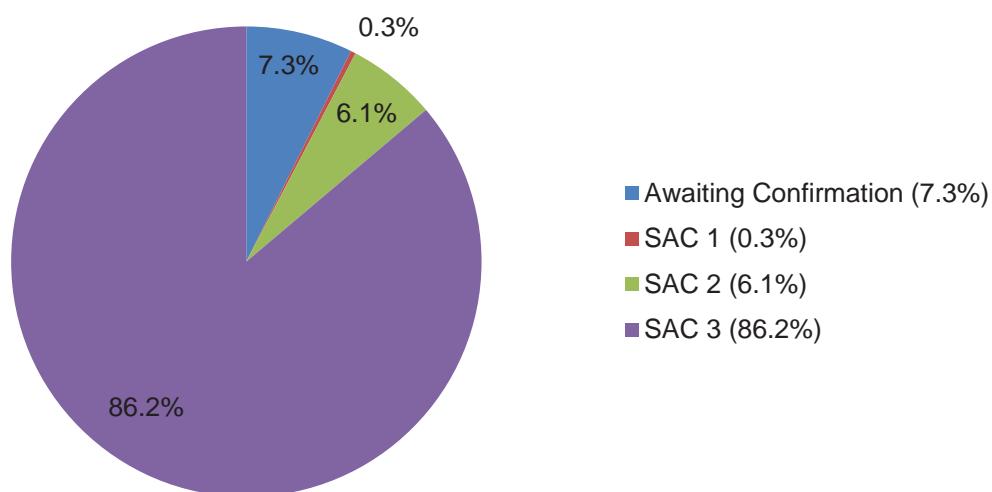
¹⁵ <http://www.npuap.org/resources/educational-and-clinical-resources/npuap-pressure-injury-stages/>

Figure 24: Percentage of Pressure Injury Clinical Incidents by Top Five Treating Specialties for 2016/17



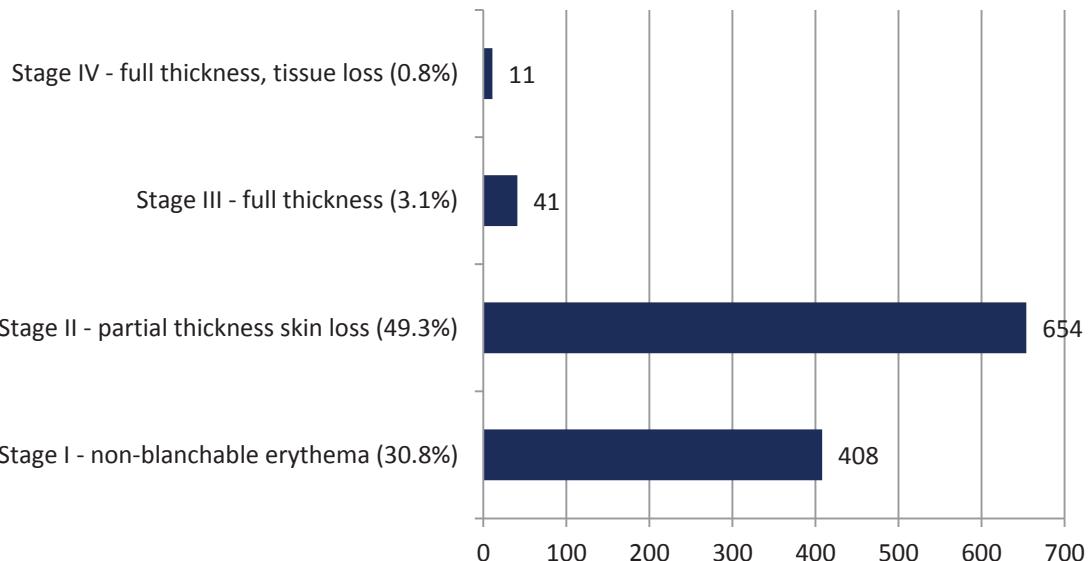
The majority of pressure injury clinical incidents were categorised as SAC 3 clinical incidents with the patient sustaining either minor harm or no harm ($n=1,233$; 86.2%; see Figure 25). There were five (0.3%) SAC 1 pressure injury clinical incidents reported during 2016/17, two were a Stage IV pressure injury, two pressure injuries were not staged and one was reported as unstageable.

Figure 25: Percentage of Pressure Injury Clinical Incidents by SAC Rating for 2016/17



Findings revealed that 84% (n=1,114) of confirmed pressure injuries were staged, with most (n=654; 49.3%) pressure injuries classified as a Stage II with partial thickness tissue loss (see Figure 26). The remainder of pressure injuries had either not been staged (n=80), were unable to be staged (n=88) or suspected depth was unknown (n=44).

Figure 26: Frequency and Percentage of Pressure Injury Clinical Incidents by Stage for 2016/17



While the majority (71.4%; n=947) of patients had only one pressure injury, 379 patients had more than one pressure injury with 15 patients having five to ten pressure injuries (see Figure 27).

Figure 27: Frequency of Pressure Injury Clinical Incidents for 2016/17

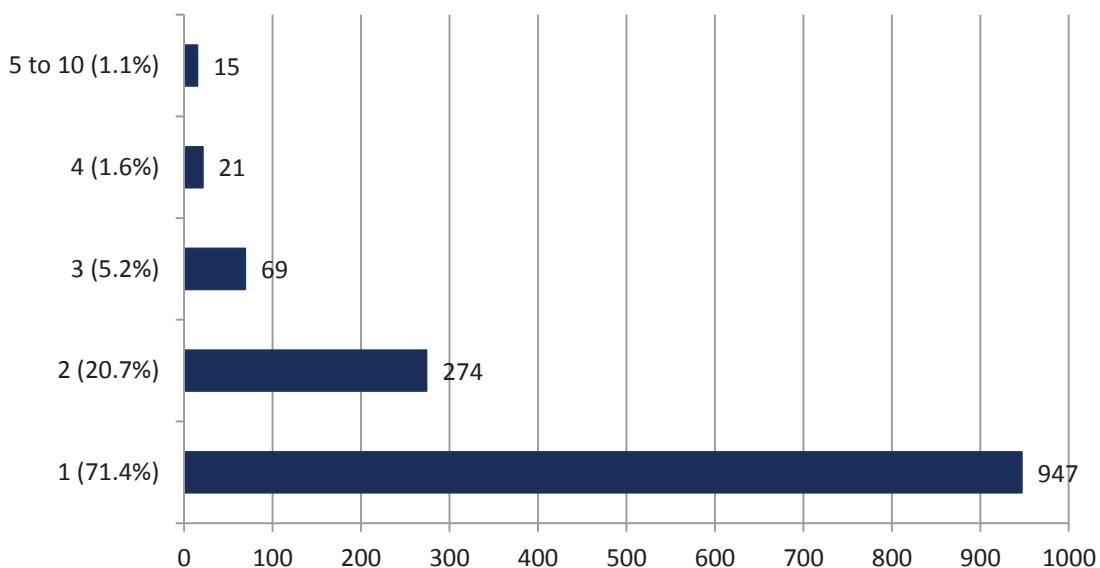
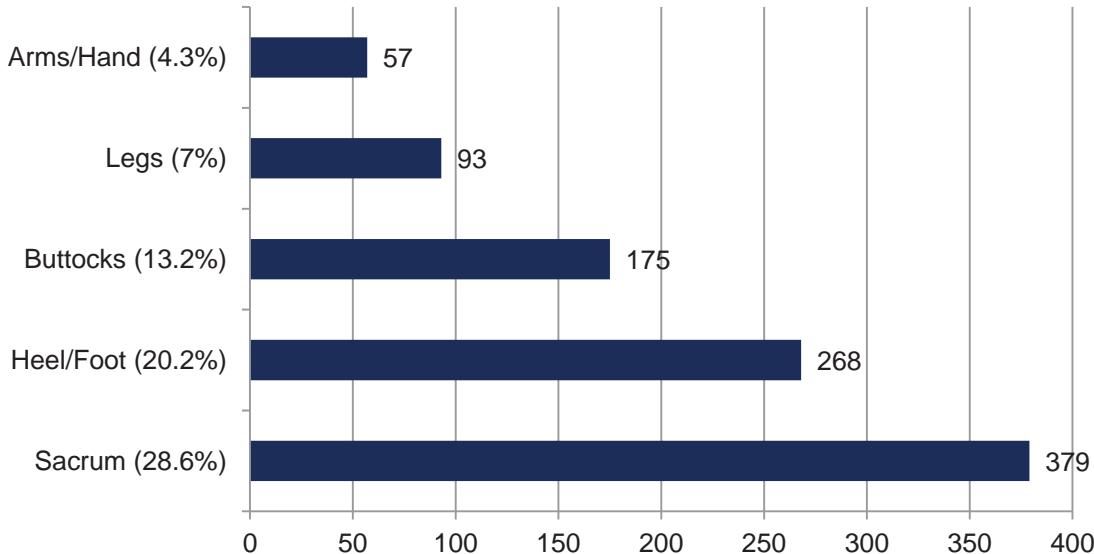


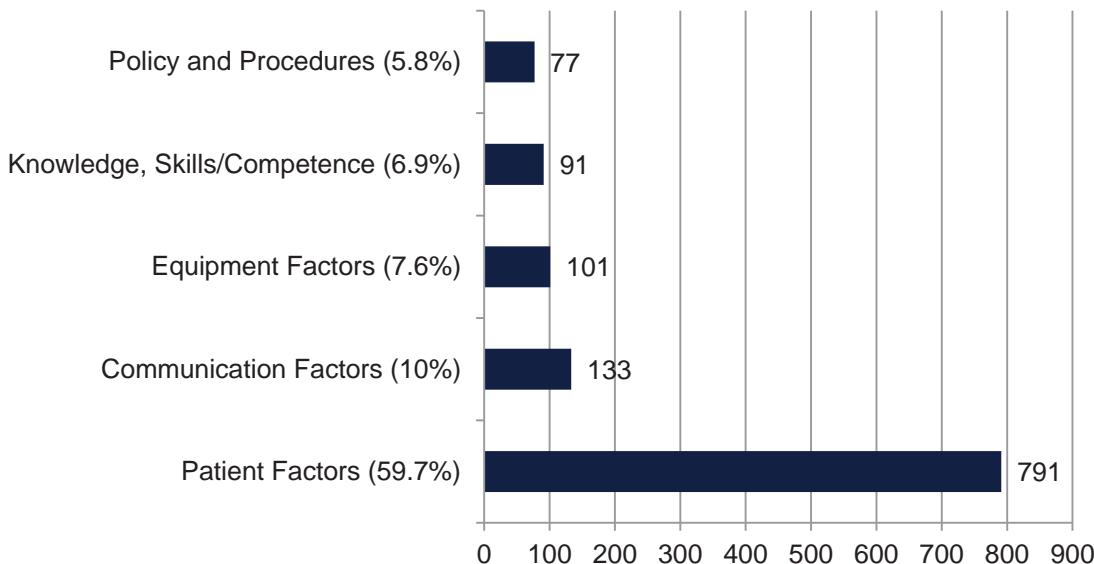
Figure 28 shows that 28.6% (n=379) of pressure injuries were located on the sacrum followed by the heel and foot (n=268; 20.2%). These top five areas accounted for 73.3% (n=972) of pressure injury anatomical locations.

Figure 28: Frequency and Percentage of Top Five Anatomical Locations for Pressure Injury Clinical Incidents for 2016/17



Patient factors were cited in more than half (n=791; 59.7%) of pressure injury clinical incidents as the main contributory factor (see Figure 29). Examples of patient factors included being critically unwell, obese, diabetic and having fragile skin etc.

Figure 29: Frequency and Percentage of Top Five Contributory Factors for Pressure Injury Clinical Incidents for 2016/17



Pressure Injuries Not Present on Admission

The majority (n=909; 68.6%) of pressure injury clinical incidents were not present on admission (see Table 15). Pressure injuries identified as present on admission (n=196), are included as clinical incidents because they were found to have deteriorated after admission, or did not have preventative, therapeutic interventions/risk assessments performed within 24 hours.

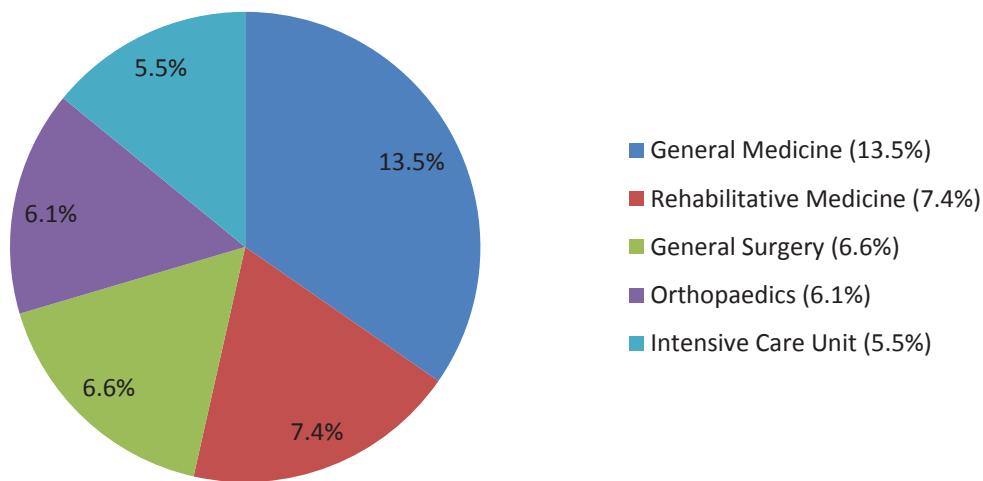
Table 15: Frequency and Percentage of Pressure Injuries Clinical Incidents Tier Three Categories for 2016/17

Pressure Injury Category	(n)	(%)
Not Present on Admission	909	68.6
Present on Admission	196	14.8
Unknown whether Present on Admission	221	16.7
Total	1,326	100.0

Males were reported to have developed more pressure injuries (n=497; 55.9%; missing n=20) whilst in hospital and the ages of these patients ranged from 0-102 years with a mean age of 66 years (SD 23 years).

The top five specialties for pressure injuries which developed whilst in hospital accounted for 39.1% (n=355) of all pressure injury clinical incidents reported in this 12 month time period (see Figure 30). The General Medicine specialty reported the most pressure injuries (n=123; 13.5%) compared to any other treating specialty.

Figure 30: Percentage of Pressure Injuries Not Present on Admission by Top Five Treating Specialties for 2016/17



Of the pressure injury clinical incidents that were identified as not being present on admission 780 were given a pressure injury stage classification and a SAC rating. Table 16 shows that the majority of hospital acquired pressure injuries were classified as either Stage I (n=311; 34.2%) or Stage II pressure injuries (n=445; 48.9%).

However, it is concerning that of the five patients who developed a Stage IV pressure injury whilst in hospital and the 19 who developed a Stage III pressure injury, only one case was classified and confirmed as a SAC 1 clinical incident. The remainder of pressure injuries were not staged (n=60), unable to be staged as depth was unknown (n=42) or were a suspected deep tissue injury with depth unknown (n=25).

Table 16: Frequency of Pressure Injuries Not Present on Admission by SAC Rating for 2016/17

Pressure Injury Category	SAC 1	SAC 2	SAC 3	Total
Stage I - non-blanchable erythema	-	5	306	311
Stage II - partial thickness skin loss	-	17	428	445
Stage III - full thickness	-	7	12	19
Stage IV - full thickness, tissue loss	1	1	3	5
Total	1	30	749	780

While the majority of patients developed only one pressure injury (n=661; 72.7%; see Figure 31), 248 patients had more than one pressure injury with seven patients having between five to eight pressure injuries.

Figure 31: Frequency of Pressure injuries Not Present on Admission for 2016/17

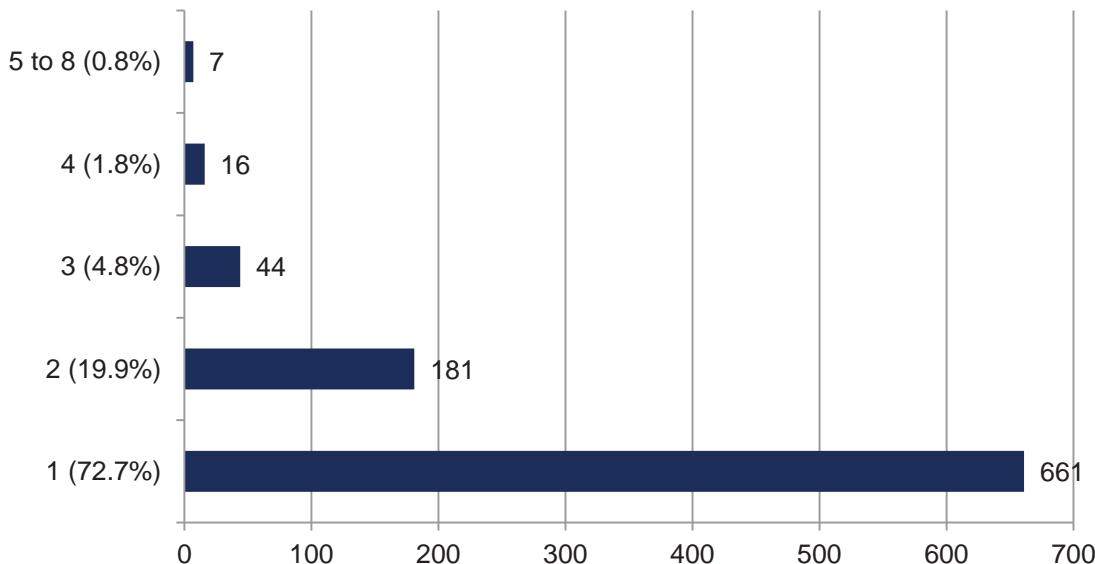
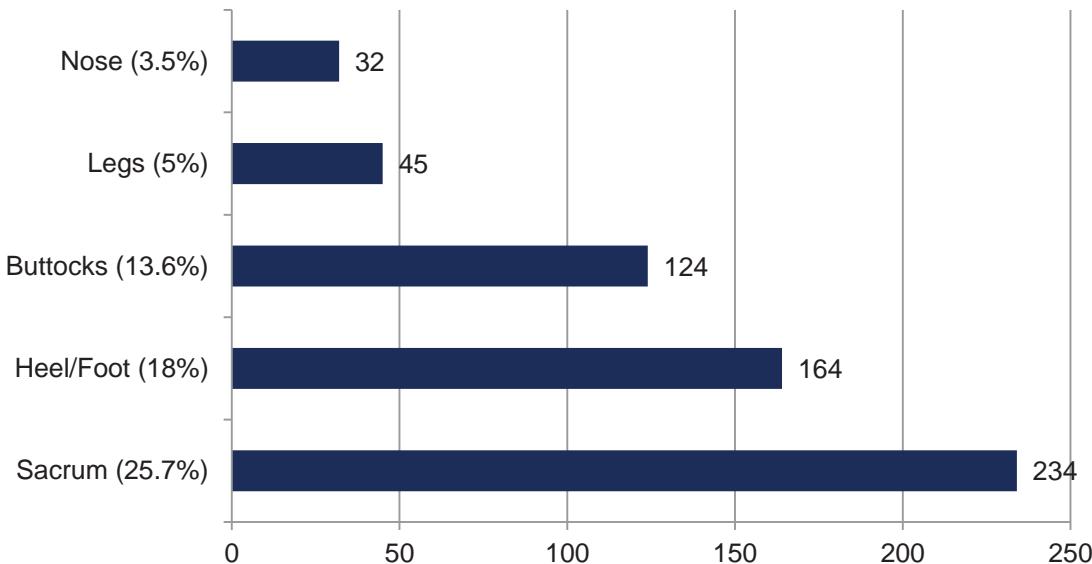


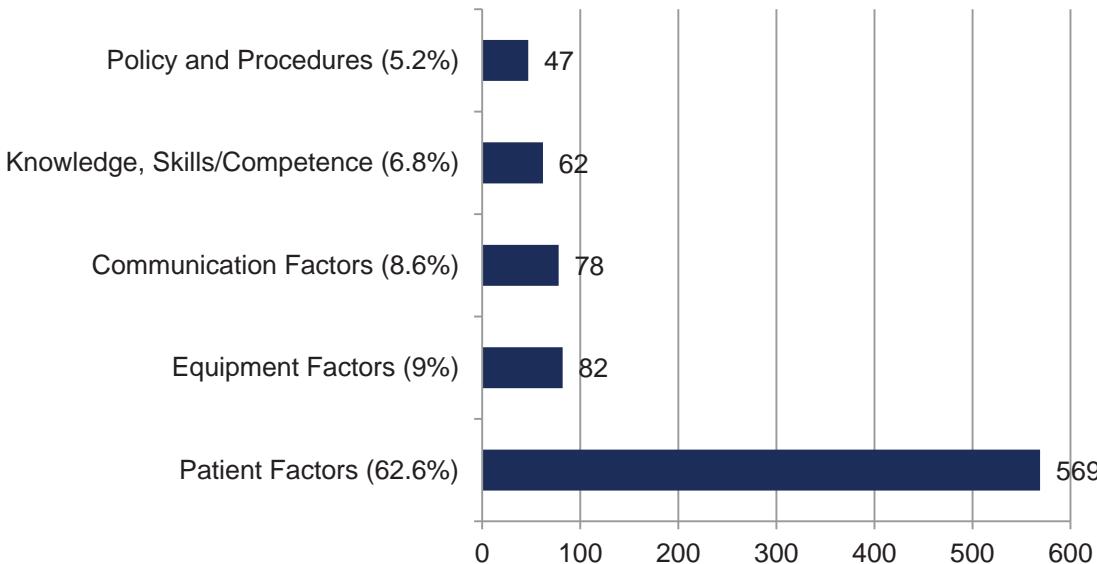
Figure 32 shows that one quarter of pressure injuries that developed whilst in hospital were located on the sacrum (n=234; 25.7%) followed by the heel and foot (n=164; 18%). These top five areas accounted for 65.9% (n=599) of pressure injury anatomical locations.

Figure 32: Frequency and Percentage of Top Five Anatomical Locations for Pressure Injuries Not Present on Admission for 2016/17



Patient factors were cited as the main contributory factor (n=569; 62.6%) of pressure injury clinical incidents that developed whilst in hospital (see Figure 33). Some of the patient factors identified in this group included patients who were immobile, diabetic, obese or were incontinent.

Figure 33: Frequency and Percentage of Top Five Contributory Factors for Pressure Injuries Not Present on Admission for 2016/17



Key Messages: Pressure Injury

Pressure injuries are painful, often difficult to treat and are a predictor of mortality in the elderly. In the 2016/17 reporting period there were 1,326 confirmed pressure injury clinical incidents of which 909 patients developed pressure injuries whilst in hospital. Fortunately, the majority were either a Stage I (n=311; 34.2%) or Stage II pressure injuries (n=445; 48.9%) which resolved after repositioning or the application of a simple dressing.

However, it is alarming that whilst in hospital, five patients developed a Stage IV pressure injury resulting in full thickness skin loss with exposed fascia, muscle, tendon, ligament, cartilage or bone. A further 19 patients developed a Stage III pressure injury with full thickness skin loss.

Stage III and Stage IV pressure injuries often require surgical intervention for the debridement of necrotic and devitalised wounds. In addition to surgery, it is imperative to control infection and undertake meticulous wound care to facilitate healing. Healing of pressure injuries can take months and in some cases years to achieve full skin integrity, which makes prevention of pressure injuries the greatest cure.

Clinical areas tend to be proficient with regard to the use of pressure relieving mattresses and devices as well as the use of skin assessment tools. The completion of skin assessments is fundamental to ensuring that pressure injuries are immediately identified and treated. A multifaceted approach to pressure injury prevention includes clinical staff educating their patients and their families about simple pressure relieving strategies to ensure that pressure injuries are prevented, especially in our most vulnerable patients.

Finally, further education is needed with regard to the SAC ratings used for pressure injuries, as patients who develop a Stage III or Stage IV pressure injury should automatically be classified as a SAC 1 clinical incident.



Standard 9: Clinical Deterioration Incidents

Standard 9 of the National Standards refers to “recognising and responding to clinical deterioration in acute health care” (ACSQHC, 2013). The intent of which, is to ensure that clinical deterioration of a patient is recognised promptly and that appropriate care taken. Clinical deterioration incidents are captured under several Tier Three categories within Datix CIMS which include¹⁶:

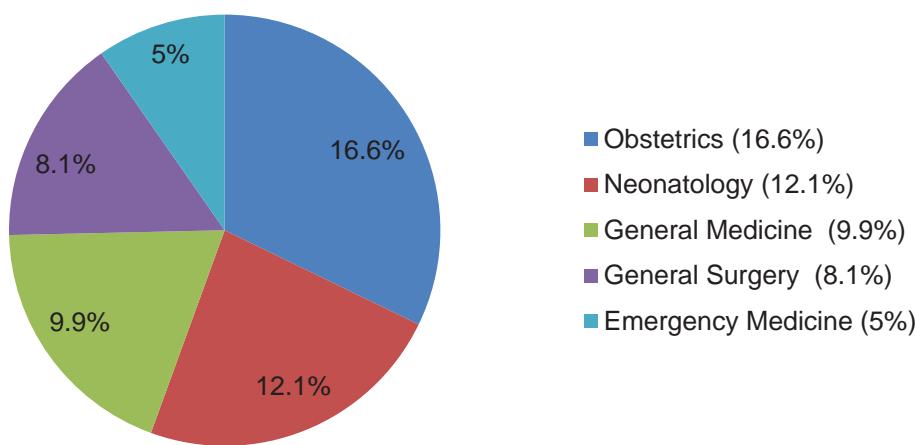
- Failure/insufficient recognition of significant change in patient status
- Failure/insufficient response to significant change in patient status
- Failure to activate rapid response/resuscitation team
- Unplanned elevation of care to intensive care setting
- Unplanned return to surgery.

Please note that the SAC 1 category of delay in recognising and responding to clinical deterioration is also captured in addition to the tier three definitions stated above.

In the 2016/17 reporting period there were 737 clinical deterioration incidents notified with 680 clinical deterioration incidents confirmed, and a further 57 awaiting confirmation. Clinical deterioration incidents accounted for 2.4% of clinical incidents reported in this time period. Females accounted for 57.1% (n=388; missing n=29) of this sample. Ages ranged from 0-103 years with a mean age of 39 years (SD 29 years).

The treating specialties which reported incidents of clinical deterioration most frequently are listed in Figure 34. These five specialties accounted for 51.6% (n=351) of all clinical deterioration incidents reported in 2016/17. The specialty of Obstetrics reported the highest frequency of clinical deterioration incidents (n=113; 16.6%) followed by Neonatology (n=82; 12.1%).

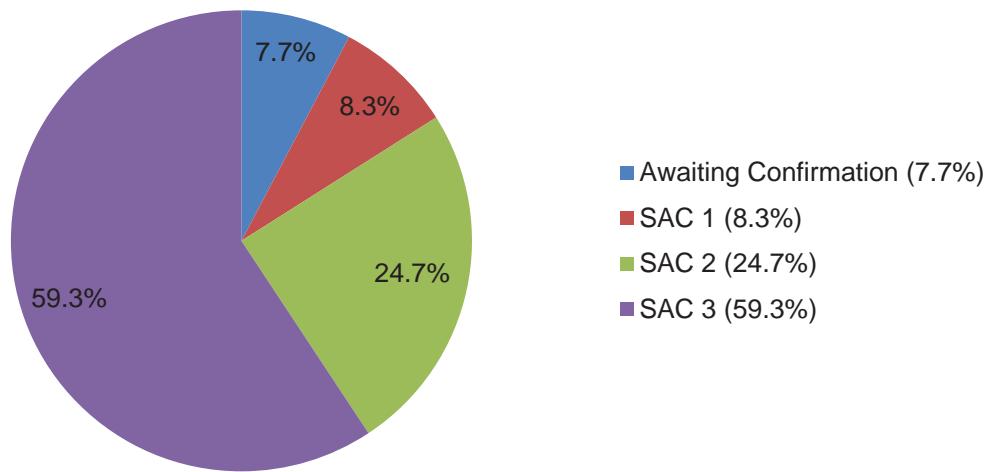
Figure 34: Percentage of Clinical Deterioration Incidents by Top Five Treating Specialties for 2016/17



¹⁶ The Datix CIMS type of clinical incident classification list was reviewed by the State Datix Committee with codes relevant to national standards 5, 6, and 9 agreed. The classification list was updated in April 2017. The updated coding has not been applied for Standard 9 across the 2016/17 year, but will be included in future PSSU reports. Therefore comparison of data to future periods may not be possible. Clinical deterioration codes affected include ‘Inappropriate alteration of established early warning score parameters’ (n=5), and ‘Early warning score miscalculated’ (n=5).

There were 680 clinical incidents which had a confirmed SAC rating. The majority (n=437; 59.3%) of confirmed clinical deterioration incidents were categorised as a SAC 3 clinical incidents with the patient sustaining either minor or no harm (see Figure 35).

Figure 35: Percentage of Clinical Deterioration Incidents by SAC Rating for 2016/17



Findings revealed that 36.8% (n=250) of these clinical deterioration incidents were categorised as relating to unplanned elevation of care to intensive care setting followed by failure/insufficient response to significant changes in patient status (n=203; 29.9% see Table 17).

Table 17: Frequency and Percentage of Clinical Deterioration Tier Three Categories for 2016/17

Tier Three Category	(n)	(%)
Unplanned elevation of care to intensive care setting	250	36.8
Failure/insufficient response to significant change in patient status	203	29.9
Failure/insufficient recognition of significant change in patient status	140	20.6
Unplanned return to surgery	45	6.6
Failure to activate rapid response/resuscitation team	42	6.2
Total	680	100.0

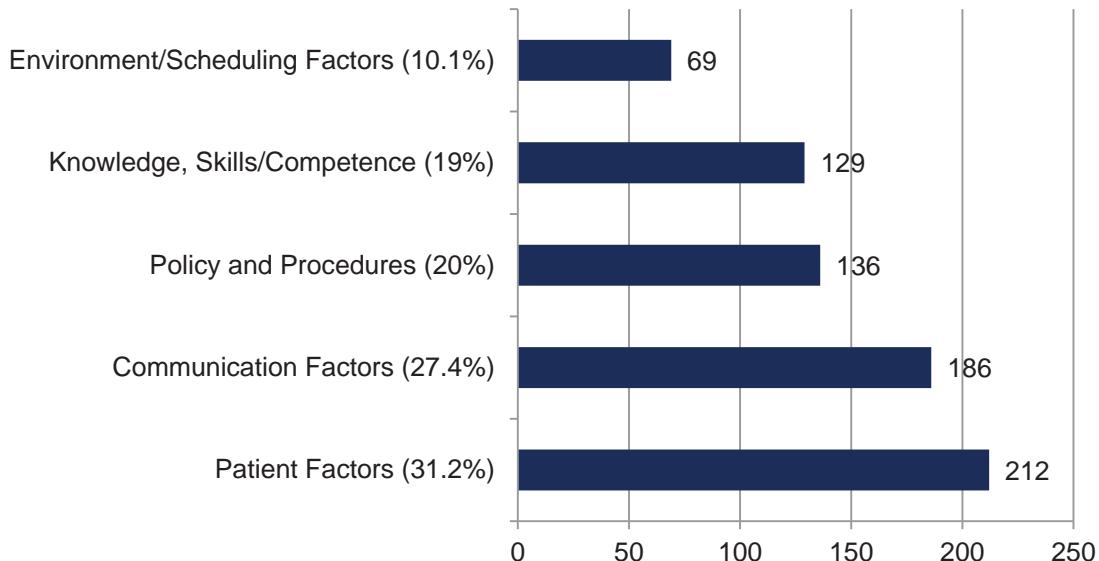
When patient outcome from clinical deterioration was reviewed, the majority of patients sustained either no harm (n=269; 39.6%) or minor harm (n=220; 32.4%; see Table 18). However, 29 (4.3%) clinical deterioration incidents resulted in the death of the patient.

Table 18: Frequency and Percentage of Clinical Deterioration Incidents by Patient Outcome for 2016/17

Patient Outcome	(n)	(%)
Death	29	4.3
Serious harm	34	5.0
Moderate harm	128	18.8
Minor harm	220	32.4
No harm	269	39.6
Total	680	100.0

For clinical deterioration incidents, patient factors (n=212; 31.2%) were the most frequently cited contributory factor followed by communication factors (n=186; 27.4% see Figure 36).

Figure 36: Frequency and Percentage of the Top Five Contributory Factors for Clinical Deterioration Incidents 2016/17



Please note that more than one contributory factor can be assigned to each clinical incident.

Key Messages: Clinical Deterioration

It is acknowledged that the recognition and treatment of an acutely ill patient is both complex and multi-factorial. Further compounding this is that patients in acute conditions can rapidly deteriorate due to worsening of their pre-existing conditions or as the result of an acute onset of serious physiological or psychological disturbances.

Findings show that one third of clinical deterioration incidents reported in 2016/17 were related to unplanned elevation of care to intensive care setting followed by failure/insufficient response to significant changes in patient status. Early identification of clinical deterioration is therefore fundamental to preventing serious patient harm. The use of clinical observation triggers such as hypotension, hypertension, respiratory distress, oxygen desaturation, rapid heart rate, low heart rate and changes in mental status are just some of the common indicators used by clinicians to identify a worsening in their patient's condition.

Both the WA health system and the ACSQHC have been instrumental in devising resources such as track and trigger observational charts which are underpinned by policy and protocols to assist staff in the early recognition and response to clinical deterioration.

While patient factors undoubtedly play a significant role in the worsening of a patient's condition, it is the clinical judgement of staff that is the ultimate attribute in detecting and managing the deterioration of an acutely ill patient. Clinical judgement is contingent on a multitude of different skills in conjunction with knowledge and experience. It is therefore imperative that clinicians continue to seek timely advice when confronted by patients who are not responding to treatments and becoming increasing unwell. Team work, situational awareness and strong and clear communication continue to be essential components in identifying and addressing the clinical deterioration of our patients. Some HSPs are currently engaging in an extensive training program¹⁷ that develops communication skills and provides a framework to support all staff to speak up for patient safety.

¹⁷ Speaking Up For Safety® Program is offered by the Cognitive Institute under a licence agreement.

ROOM 6



Standard 10: Falls Clinical Incidents

Standard 10 of the National Standards refers to “preventing falls and harm from falls” (ACSQHC, 2013). The intent of which is to properly risk assess patients to try and prevent falls from occurring.

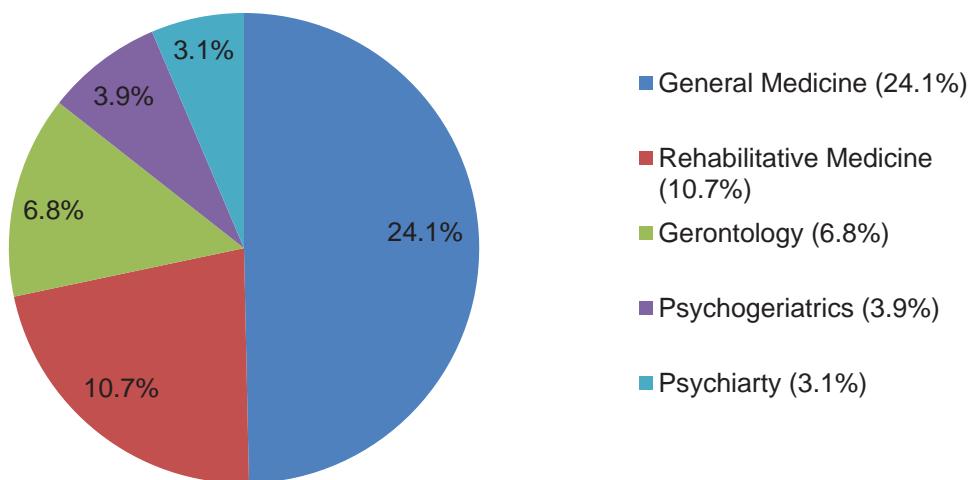
Falls clinical incidents are captured under two Tier Two categories within Datix CIMS which include:

- Witnessed Slips/Trips/Falls (includes faints)
- Suspected Slips/Trips/Falls (un-witnessed, includes faints).

In the 2016/17 reporting period there were 5,913 falls incidents notified with 5,510 falls confirmed, and a further 403 awaiting confirmation. Falls clinical incidents accounted for 19.6% of clinical incidents reported in this time period. Males accounted for 55.3% (n=3,045; missing n=155) of this sample. Ages ranged from 0-103 years with a mean age of 71 years (SD 19 years).

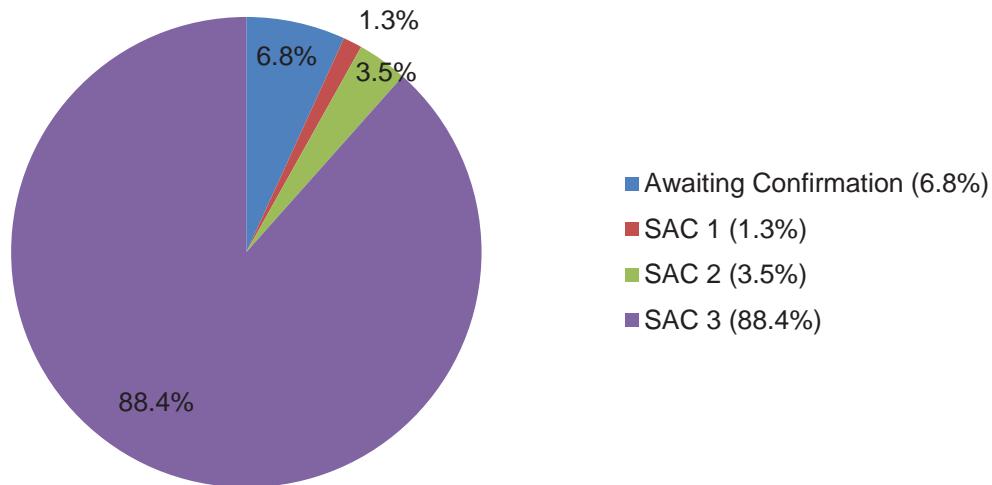
The top five specialties accounted for 48.5% (n=2,674) of all fall incidents reported in this 12 month time period. The General Medicine specialty reported the highest frequency of falls incidents (n=1,328 24.1%) followed by the Rehabilitative Medicine specialty (n=589; 10.7%; see Figure 37).

Figure 37: Percentage of Falls Incidents by Top Five Treating Specialty for 2016/17



The majority of falls clinical incidents were categorised as a SAC 3 clinical incidents with the patient sustaining either minor harm or no harm (n=5,229; 88.4%; see Figure 38). Of the 79 SAC 1 falls clinical incidents, 14 falls clinical incidents had an outcome of death.

Figure 38: Percentage of Falls Incidents by SAC Rating for 2016/17



Findings revealed that the majority (n=3,664; 66.5%) of falls clinical incidents were categorised as “suspected slips/trips/falls” as they were unwitnessed (see Table 19).

Table 19: Frequency and Percentage of Confirmed Tier Two Falls Categories for 2016/17

Tier Two Falls Category	(n)	(%)
Unwitnessed falls	3,664	66.5
Witnessed falls	1,846	33.5
Total	5,510	100.0

When identifying the height the patient fell, 37.5% (n=2,067) of falls clinical incidents were classified as a low fall from a height of 0.5 metre or less. With a further 1,637 (29.7%) falls incidents occurring from a standing position.

The top five most frequent activities at the time a patient fell accounted for 69.8% (n=3,845) of falls incidents. At the time of the fall incident, 1,121 (20.3%) patients were walking while a further 928 (16.8%) patients were attempting to stand/sit (see Table 20).

Table 20: Frequency and Percentage of Top Five Falls Incidents by Activity for 2016/17

Falls by Activity at Time of Fall	(n)	(%)
Walking	1,121	20.3
Attempting to stand/sit	928	16.8
Toileting or attempting to toilet	796	14.4
Getting out of bed	625	11.3
Standing	375	6.8
Total	3,845	69.8

Nearly one third of falls occurred at the bedside (n=1,814; 32.9%) with a further 1,584 falls incidents occurring in the ward setting (28.7%; see Table 21).

Table 21: Frequency and Percentage of Top Five Places Where Falls Incidents Occurred for 2016/17

Place of Fall	(n)	(%)
Bedside	1,814	32.9
Ward	1,584	28.7
Bathroom	1,081	19.6
Dining room	154	2.8
Allied Health Treatment Area	132	2.4
Total	4,765	86.4

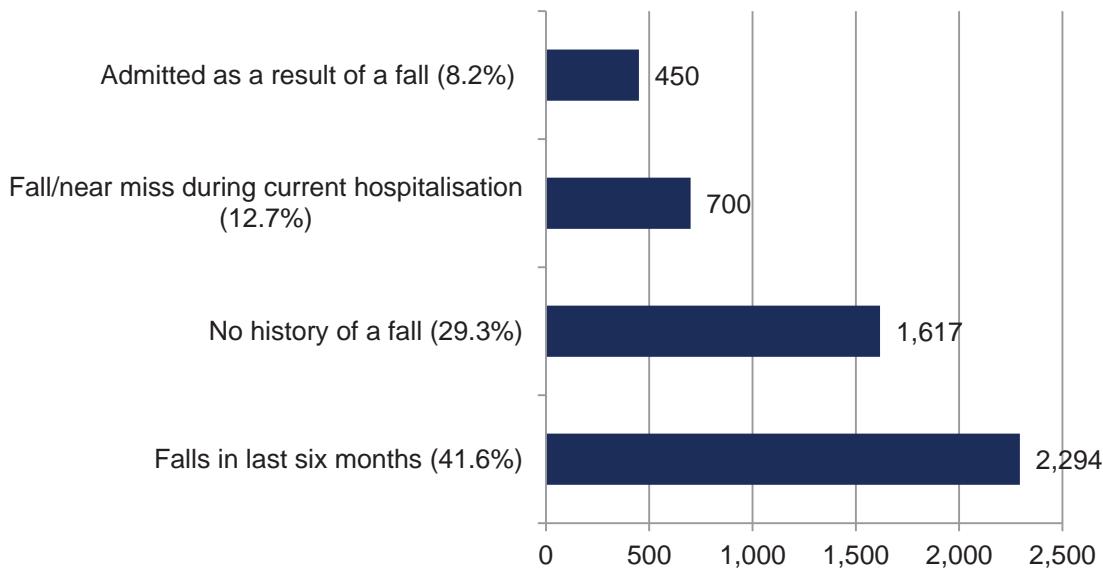
The outcome of a fall was poorly documented within the clinical incident management system, with 65 (1.2%) incidents resulting in a fracture, 21 clinical incidents resulting in a subdural haematoma (0.4%) and 1,206 (21.9%) stating “other outcome”. The remainder of the falls incidents did not state an outcome.

The majority of falls (n=3,511; 63.7%) were reported as having an unknown mechanism as to why the patient fell. Slips and trips were the next most frequently identified fall type and accounted for 18% (n=989) of all falls, followed by faints, cardiac collapse or epilepsy (n=296; 5.3%; missing data n=714).

Ninety one percent (n=5,004) of patients who sustained a fall were shown to have a falls risk assessment in place. With 2,271 (41.2%) of these patients having had their most recent falls risk assessment completed within the last 24 hours, followed by within the last week (n=1,426; 25.9%). Nearly seventeen percent (n=918) of patients had a falls risk assessment completed more than a week ago while the remainder did not have any falls risk assessment (n=895; 16.2%).

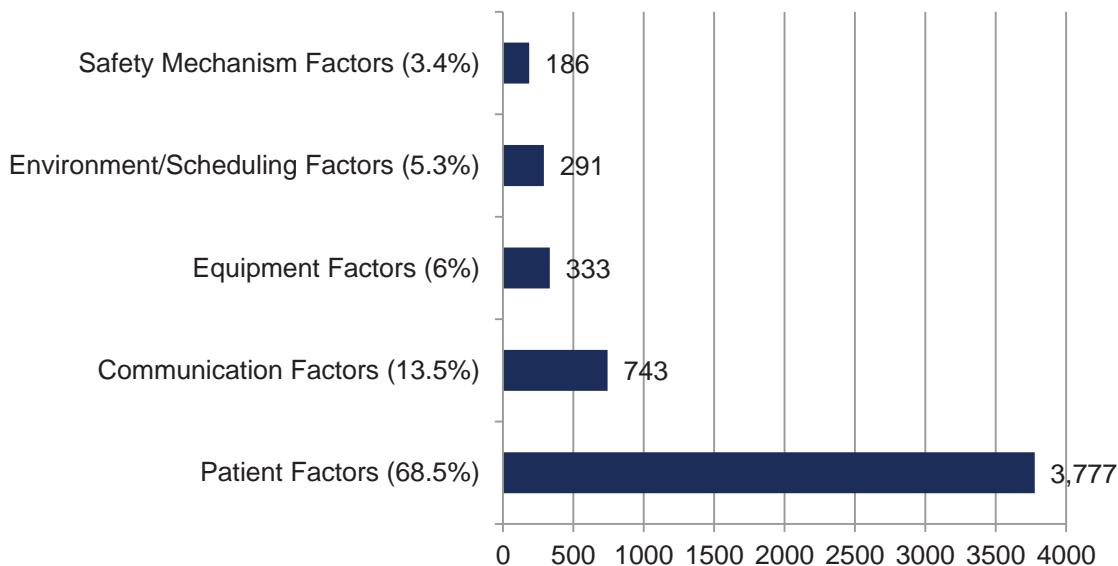
Nearly one third (n=1,617; 29.3%) of patients who fell in hospital had no previous history of a fall. While 41.6% (n=2,294) of patients who sustained a fall whilst in hospital had also experienced a fall within the last six months (see Figure 39).

Figure 39: Frequency and Percentage of Falls History for 2016/17



Patient factors (n=3,777; 68.5%) were cited as the main contributory factor of falls clinical incidents followed by communication factors (n=743; 13.5%; see Figure 40).

Figure 40: Frequency and Percentage of Top Five Contributory Factors for Falls Clinical Incidents for 2016/17



Key Messages: Falls Clinical Incidents

Falls prevention continues to be a key priority both at a state and national level. The WA health system has been instrumental in embedding falls prevention strategies into standard practice across hospitals and health care providers. Risk assessment tools assist staff in assessing patients' fall risk allowing for individual prevention strategies to be implemented.

Results showed that 91% (n=5,004) of patients who sustained a fall were shown to have a falls risk assessment in place. While this finding is encouraging, falls greatly impact on patient morbidity and mortality and often result in increased lengths of stay which means greater costs to our health system. It is fortunate that the majority (n=5,229; 88.4%) of falls resulted in minor or no harm however 79 falls clinical incidents did result in serious harm of which 14 patients had an outcome of death.

When all appropriate falls interventions are in place then the next most important falls risk mitigation strategy is to be hypervigilant with regard patient safety. This includes educating both the patient and their family with regard to falls prevention strategies and when necessary carrying out the reassessment of patients' falls risk status based on changes to their medical condition.



Quality of Care

Quality in health care is imperative from both an individual and patient population perspective. The delivery of health care is undertaken within a highly complex health care system. When system processes break down the quality of care provided is compromised. Mitigating these risks can greatly assist in preventing complications thereby enabling patients to make a full recovery.

From a patient population perspective, the WA health system utilises administrative data collections such as the HMDC to better understand the quality of health care delivery. The HMDC captures all inpatient activity and discharge data, which may include hospital acquired conditions captured by the condition onset flag code.

The PSSU have used HMDC data to complement data notified to the Datix CIMS and to review the quality of care that has been delivered to our patients. The codes from the Hospital Acquired Complications (HAC) list has also been used to gain a better understanding of the types of HAC experienced by patients using the WA health system.

Hospital Acquired Complications

Since 2012, the ACSQHC has been working to identify HAC which could be reduced if appropriate risk mitigation strategies were in place. This HAC work builds on the detailed work undertaken to develop the CHADx. Specifically, the development of the refined HAC code list was undertaken to identify HAC with regard to preventability. A comprehensive process involving an extensive literature review and environmental scan was undertaken by the ACSQHC. The environmental scan included the review of patient clinical data to indicate patient safety improvement areas/issues.

A proof of concept study was then undertaken in 2014 and 2015 involving seven public hospitals and eight private hospitals from across Australia. The study assessed the completeness and accuracy of patient clinical data for over 5,000 hospital records. A second component of the study assessed the feasibility and utility of using HAC codes for monitoring and reporting patient complications. Conclusions from this ACSQHC study include:

- “The general concept of using patient clinical data to derive clinical measures for safety and quality purposes is useful and acceptable to clinicians.
- The specific concept of using patient clinical data to detect and report HACs is useful and acceptable to clinicians.
- Patient clinical data is sufficiently accurate to support implementation of measurement and monitoring of HACs for safety and quality monitoring, notwithstanding that there are areas for improvement in data quality. Key areas for coding improvement are the accuracy of the condition onset flag and selected HACs – falls with fracture, iatrogenic pneumothorax, medication complications and persistent incontinence.
- Monitoring and reporting on HACs at the hospital level can be used by clinicians to detect patient safety problems and develop clinical risk mitigation strategies to reduce (but not necessarily eliminate) the risk of the complication occurring.
- Clinicians will make use of reported data if they have confidence in the measures of safety and quality and have access to analytical reporting tools and data expertise.”¹⁸

The national list of high priority HAC consists of 16 complications that have been deemed to possibly respond to clinical risk mitigation strategies and thereby reduce the risk of that

¹⁸ <http://www.safetyandquality.gov.au/our-work/information-strategy/indicators/hospital-acquired-complications/>

complication occurring (see Table 22). It is acknowledged that risk mitigation strategies may not necessarily eliminate the complication from occurring.

Table 22: National List of Hospital Acquired Complications¹⁹

Hospital Acquired Complications	Diagnosis
Pressure injury	Stage III pressure injury Stage IV pressure injury Unspecified decubitus pressure injury and pressure area
Falls resulting in fracture or intracranial injury	Intracranial injury Fractured neck of femur Other fractures
Healthcare associated infection	Urinary tract infection Surgical site infection Pneumonia Blood stream infection Central line and peripheral line associated bloodstream infection Multi-resistant organism Infection associated with prosthetics/implantable devices Gastrointestinal infections
Surgical complications requiring unplanned return to theatre	Post-operative haemorrhage/haematoma requiring transfusion and/or return to theatre Surgical wound dehiscence Anastomotic leak Vascular graft failure Other surgical complications requiring unplanned return to theatre
Unplanned intensive care unit admission	Unplanned admission to intensive care unit (Please note that WA health system does not collect this data as defined for counting by ACSQHC)
Respiratory complications	Respiratory failure including acute respiratory distress syndrome requiring ventilation Aspiration pneumonia
Venous thromboembolism	Pulmonary embolism Deep vein thrombosis
Renal failure	Renal failure requiring haemodialysis or CVVHD
Gastrointestinal bleeding	Gastrointestinal bleeding
Medication complications	Drug related respiratory complications/depression Haemorrhagic disorder due to circulating anticoagulants Hypoglycaemia
Delirium	Delirium
Persistent incontinence	Urinary incontinence
Malnutrition	Malnutrition
Cardiac complications	Heart failure and pulmonary oedema Arrhythmias Cardiac arrest Acute coronary syndrome including unstable angina, STEMI and NSTEMI (heart attack)
Third and fourth degree perineal laceration during delivery	Third and fourth degree perineal laceration during delivery
Neonatal birth trauma	Neonatal birth trauma

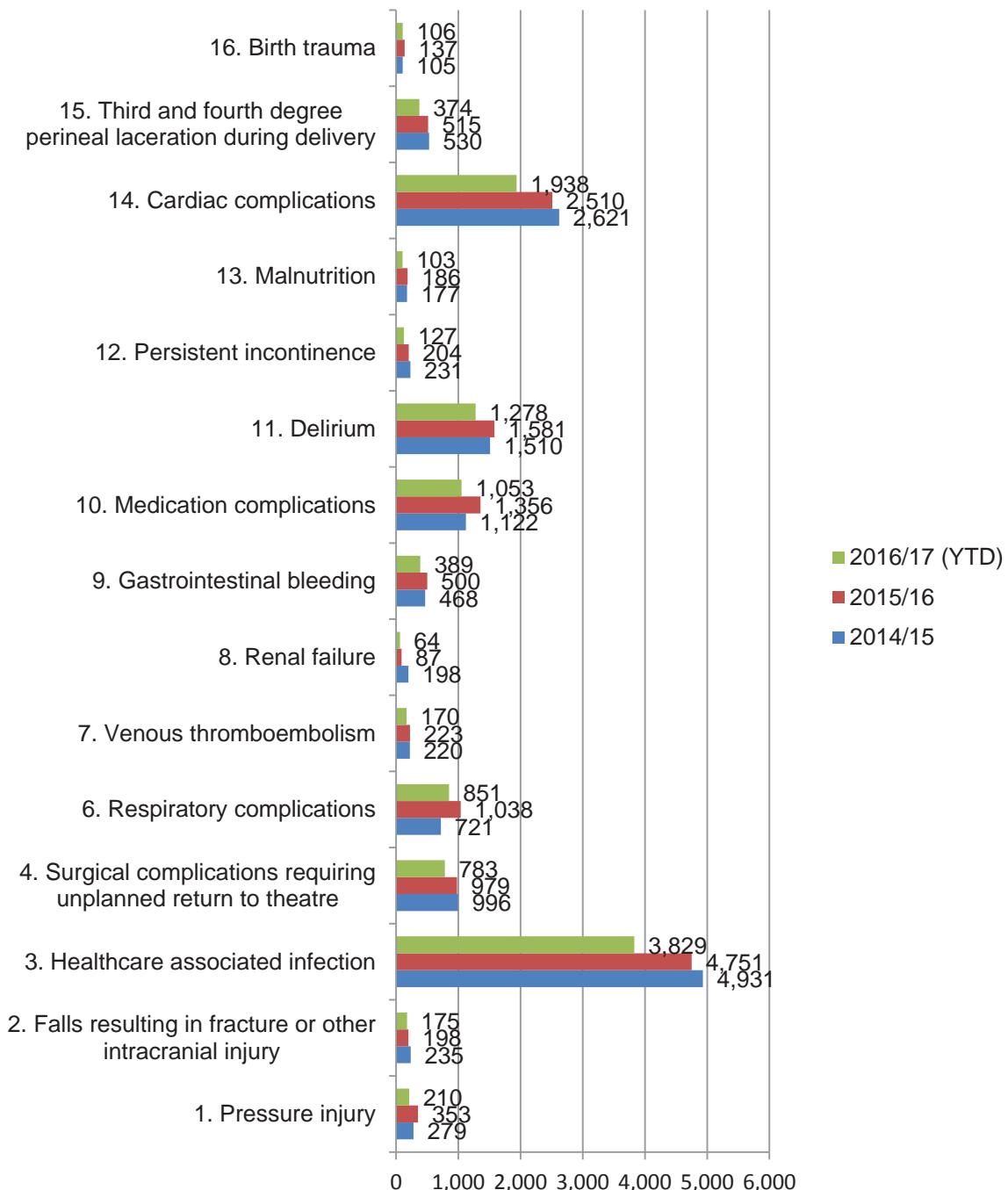
Western Australian hospital morbidity data were reviewed with regard to HAC incidents for the 2014/15, 2015/16 and 2016/17 (YTD Mar 2017). In 2014/15, 2.5% (n=10,766) of separations

¹⁹ HAC codes are subject to ongoing review by the ACSQHC.

accounted for all instances of a HAC 1-14 diagnoses with similar results noted in 2015/16 (2.4%; n=10,828) and 2016/17 (YTD; 2.5% (n=8,511). Third and fourth degree lacerations accounted for 2.8% (n=460) of HAC diagnoses in 2014/15 and 3% (n=515) in both 2015/16 and 2016/17 (YTD; n=137). Birth trauma accounted for 0.2% (n=43) of diagnoses in 2014/15 and 0.6% (n=137) in both 2015/16 and 2016/17 (YTD; n=106). Please note that these two categories use different separation denominators to HAC categories 1-14.

Findings showed that healthcare associated infections were the most frequently reported complication for 2014/15 (n=4,931), 2015/16 (n=4,751) and 2016/17 (n=3,829; see Figure 41). The next most frequently mentioned HAC for this same data period were cardiac complications 2014/15 (n=2,621), 2015/16 (n=2,510) and 2016/17 (YTD n=1,938).

Figure 41: Frequency of Hospital Acquired Complication Diagnoses by Year



Please note that a separation is counted once within each HAC category but can be counted multiple times across HAC categories.

Patients with a Healthcare Associated Infection

Healthcare associated infections accounted for 1.2% (n=4,931) of HAC in 2014/15, 1.1 % (n=4,751) in 2015/16 and 1.2% (n=3,829) in 2016/17 (YTD). Across all years females reported a higher frequency of HAI compared to males (2014/15 n=2,564; 2015/16 n=2,444 and 2016/17 YTD; n=1,978). The mean age for patients with HAI in 2014/15 was 62 years which increased slightly in 2015/16 (63 yrs) and 2016/17 (YTD; 64 yrs). Ages ranged from newborns to 108 years (see Table 23).

Table 23: Frequency and Percentage of Patients with HAI by Gender and Age Range

HAI Patient Characteristics	2014/15	2015/16	2016/17 (YTD)
Male	2,367 (48%)	2,307 (49%)	1,851 (48%)
Female	2,564 (52%)	2,444 (51%)	1,978 (52%)
Minimum Age (years)	0	0	0
Maximum Age (years)	108	108	104
Mean Age (years)	62	63	64
Standard Deviation (years)	25	25	25

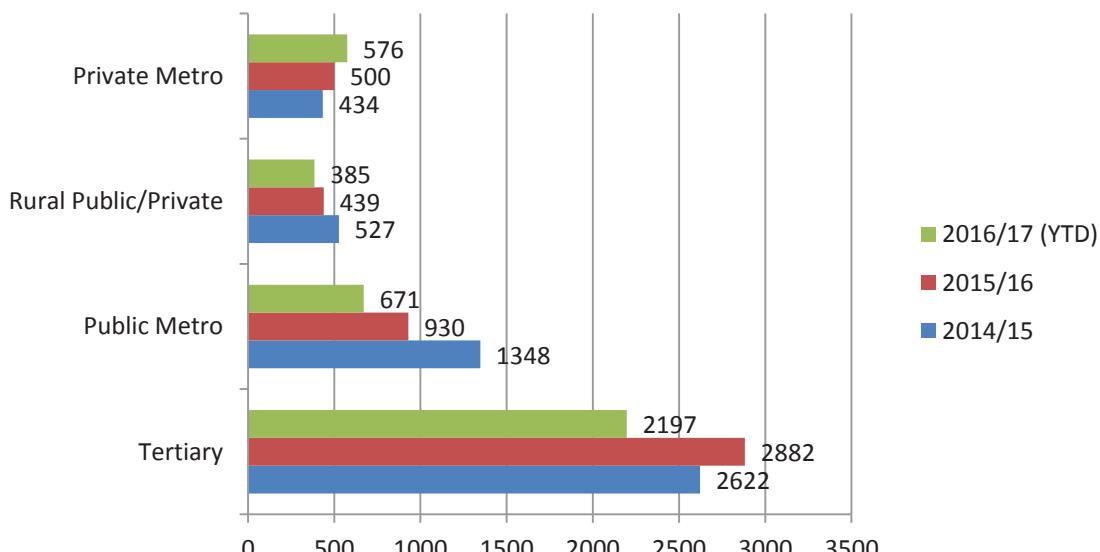
The majority of patients who sustained a HAI for 2014/15, 2015/16 and 2016/17 were identified as emergency department admissions (n= 2,170; 1,969 and 1,655 respectively see Table 24).

Table 24: Frequency of Patients with HAI by Admission Status and by Year

Admission Status	2014/15	2015/16	2016/17 (YTD)
Elective Waitlist	792	750	577
Elective Non Waitlist	1,198	1,235	1,060
Emergency Dept Admission	2,170	1,969	1,655
Emergency Dept Direct Admission	771	797	537
Total	4,931	4,751	3,829

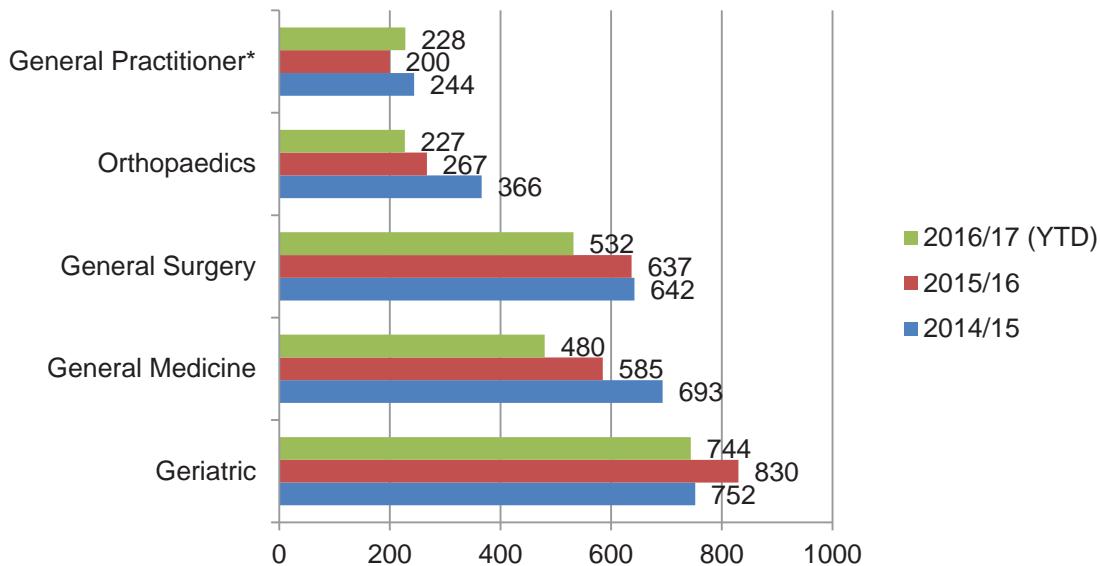
The majority of HAI were reported by the Tertiary Hospitals (2014/15 n=2,622; 2015/16 n=2,882 and 2016/17 YTD; n=2,197; see Figure 42).

Figure 42: Frequency of Patients with HAI by Hospital Category and by Year



Geriatric specialty patients were found to have the most frequently reported instances of HAI in 2014/15 (n=752), 2015/16 (n=830) and in 2016/17 (YTD; n=744; see Figure 43).

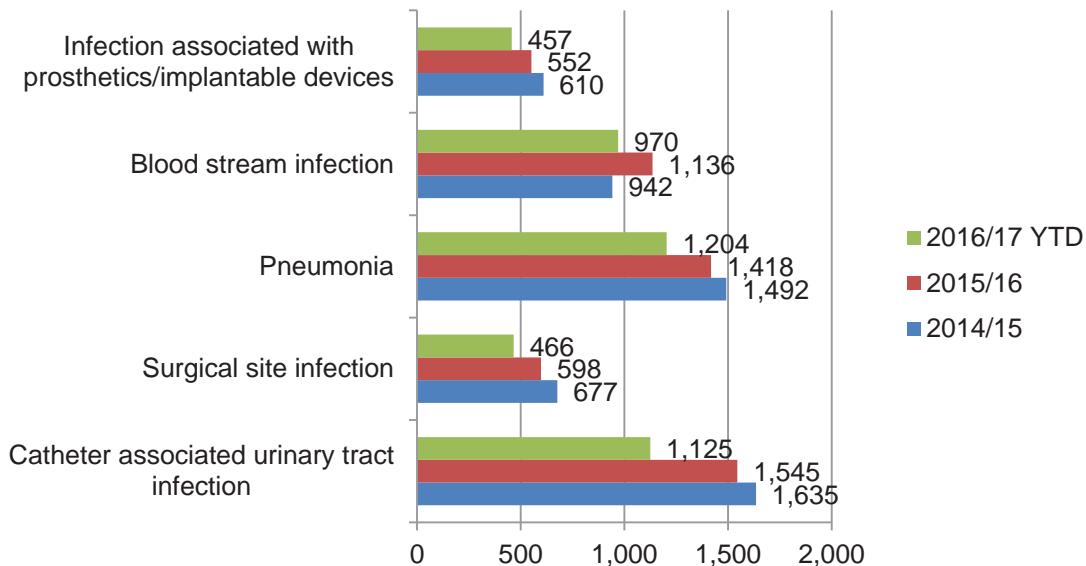
Figure 43: Frequency of Patients with HAI by Top Five Discharge Specialty by Year



*General Practitioner specialty refers to the medical model used in some rural hospitals.

Figure 44 shows the top five most frequently reported source of HAI, with urinary catheter infections showing the highest frequency for both 2014/15 (n=1,635) and 2015/16 (n=1,545). While the most frequent HAI for 2016/17 (YTD) was pneumonia (n=1,204).

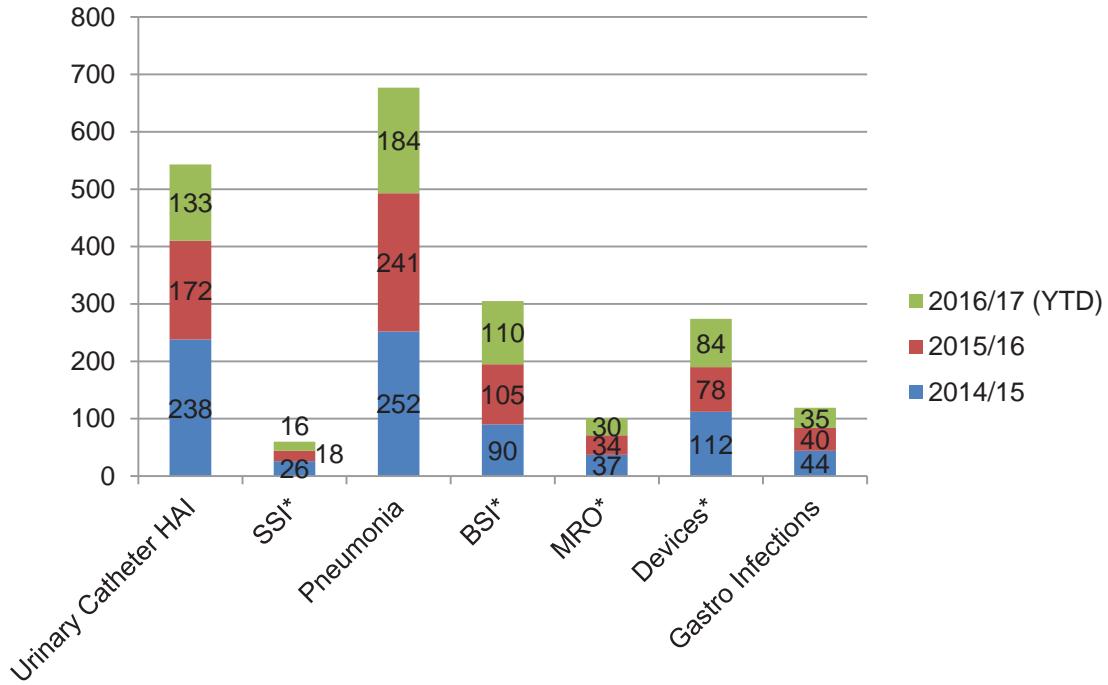
Figure 44: Frequency of Top Five HAI by Year



Trend data for HAI type by the most frequently reported specialties are reported below.

For general medicine patients, pneumonia was identified as the most frequent HAI for all three reporting periods (2014/15 n=252; 2015/16 n=241 and in 2016/17 YTD n=184). Urinary catheter infections were the next most frequent HAI for this group (2014/15 n=238; 2015/16 n=172 and in 2016/17 YTD n=133; see Figure 45).

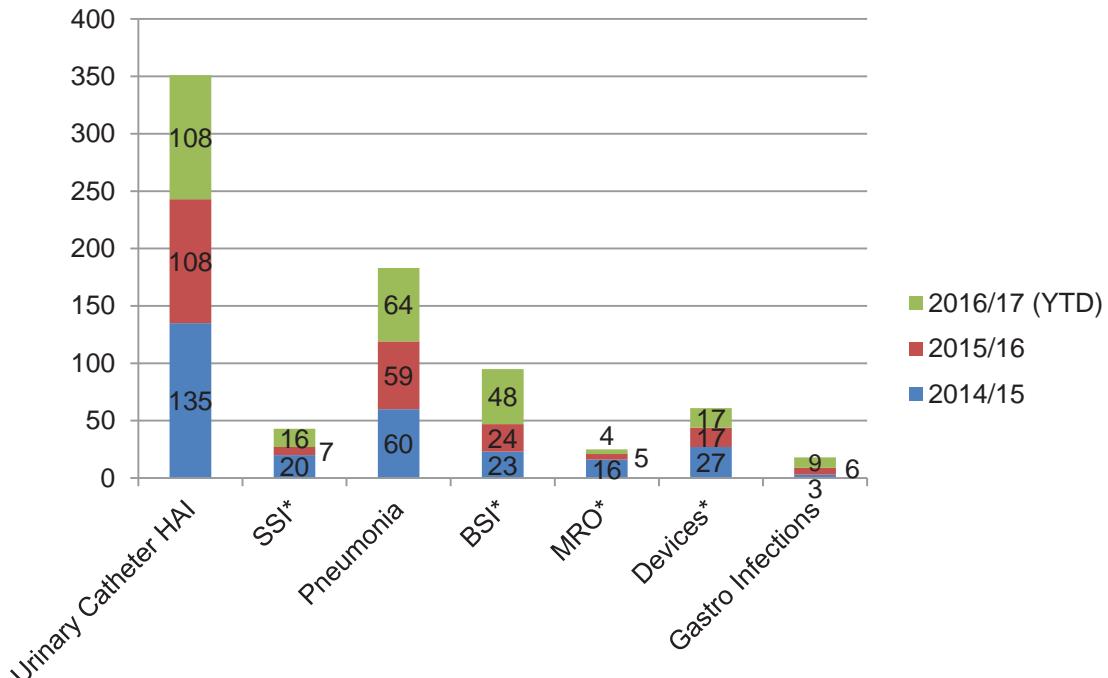
Figure 45: Frequency of HAI by General Medicine Specialty Patients by Year



*SSI=surgical site infection; BSI=blood stream infections; MRO=multiresistant infection; Devices=central and peripheral lines, prosthetics and implantable devices.

For patients seen by general practitioners**, urinary catheter infections were identified as the most frequent HAI in 2014/15 (n=135), 2015/16 (n=108) and in 2016/17 (YTD; n=108; see Figure 46), followed by pneumonia (n=60; n=59; n=64 respectively).

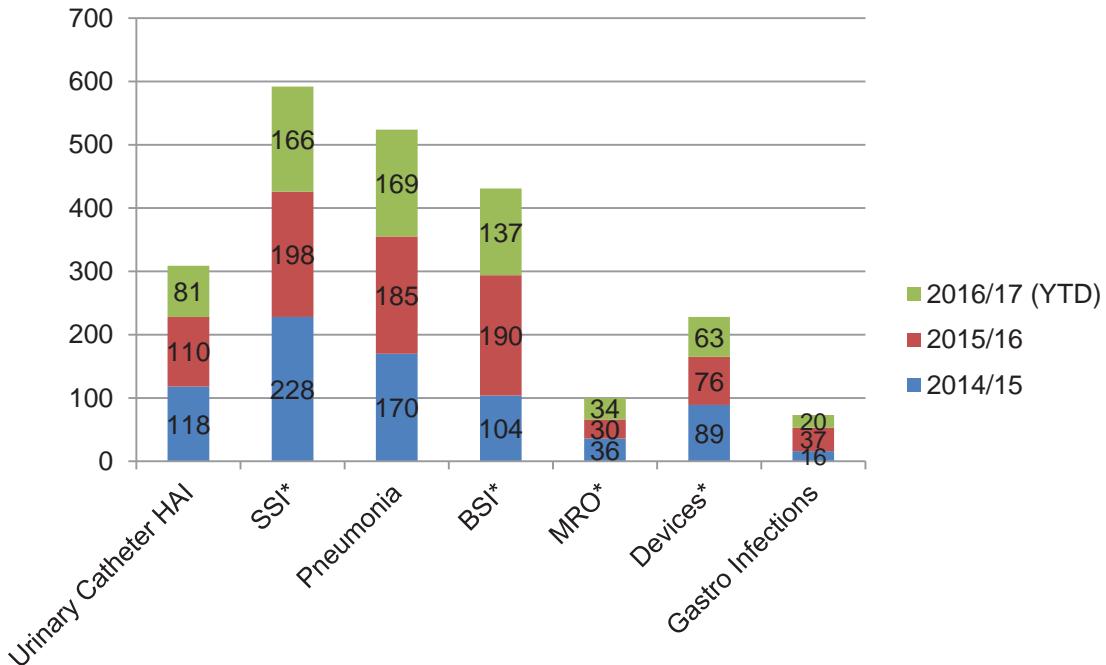
Figure 46: Frequency of HAI by General Practitioner Specialty Patients by Year



*SSI=surgical site infection; BSI=blood stream infections; MRO=multiresistant infection; Devices=central/peripheral lines, prosthetics devices. **GP specialty refers to the medical model used in some rural hospitals.

For patients seen by the general surgery specialty, surgical site infections were most frequently reported in 2014/15 (n=228), 2015/16 (n=198) and in 2016/17 (YTD; n=166; see Figure 47), followed by pneumonia (n=170; n=185; n=169 respectively).

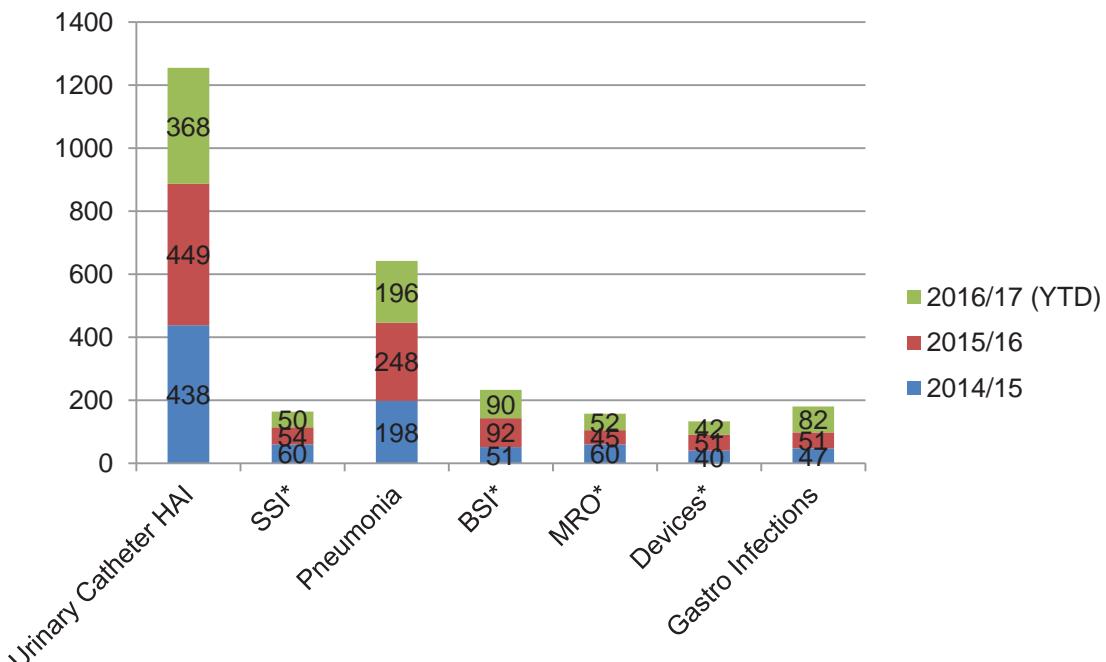
Figure 47: Frequency of HAI by General Surgery Specialty Patients by Year



*SSI=surgical site infection; BSI=blood stream infections; MRO=multiresistant infection; Devices=central and peripheral lines, prosthetics and implantable devices.

Urinary catheter HAI were the most frequently reported for geriatric specialty patients in 2014/15 (n=438), 2015/16 (n=449) and in 2016/17 (YTD; n=368), followed by pneumonia (n=198; n=248; n=196 respectively; see Figure 48).

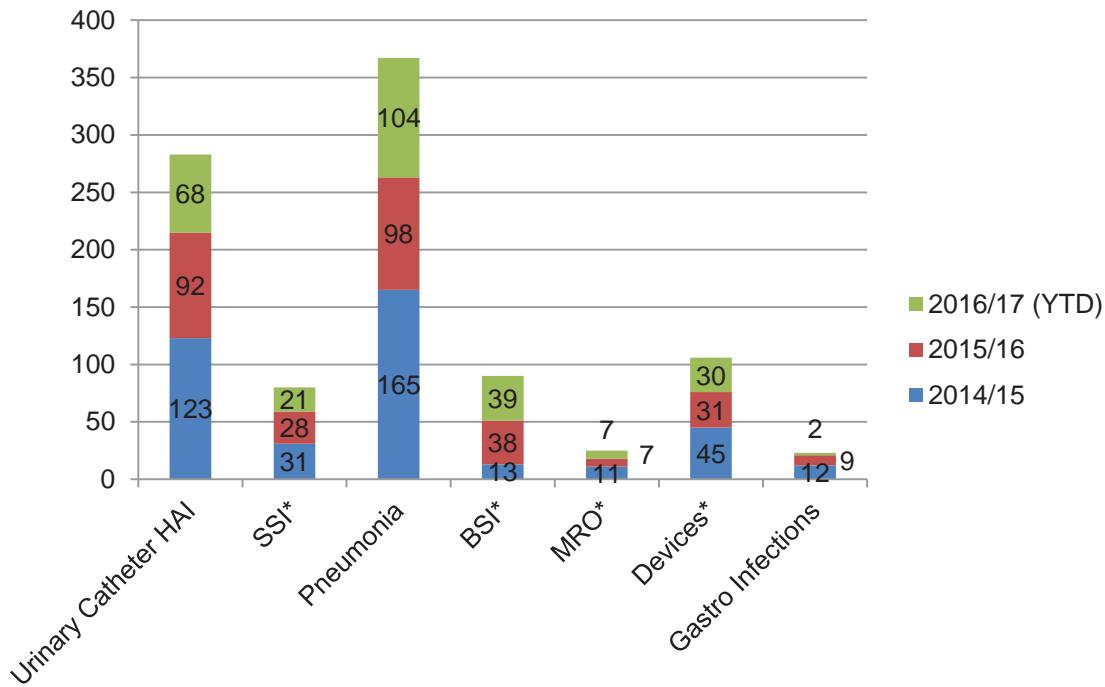
Figure 48: Frequency of HAI by Geriatric Specialty Patients by Year



*SSI=surgical site infection; BSI=blood stream infections; MRO=multiresistant infection; Devices=central and peripheral lines, prosthetics and implantable devices.

For patients seen by the orthopaedic specialty, pneumonia was identified most frequently in 2014/15 (n=165), 2015/16 (n=98) and in 2016/17 (YTD; n=104; see Figure 49), followed by urinary catheter infections (n=123; n=92; n=68 respectively).

Figure 49: Frequency of HAI by Orthopaedic Specialty Patients by Year



*SSI=surgical site infection; BSI=blood stream infections; MRO=multiresistant infection; Devices=central and peripheral lines, prosthetics and implantable devices.

Key Messages: Healthcare Associated Infections

Healthcare associated infections are a major patient safety issue. Findings showed that in 2016/17, HAI accounted for 1.2% (n=4,931) of all HAC. Urinary tract infections and pneumonia were the most frequent type of HAI reported with these two infections also the most frequently reported by the top five specialty groups. Greater focus on prevention strategies that target urinary tract infections and pneumonia would be of benefit.



Coronial Review

The Coronial Liaison Unit (CLU) was established in 2005 to improve communication between the WA health system and the Office of the State Coroner. It allocates health related findings from coronial inquests to appropriate stakeholders for implementation of recommendations. This information drives quality improvement in health care which supports the provision of a high standard of health care. Health Service Providers, and other stakeholders, provide advice and comments on coronial findings and an account of actions taken to improve patient safety. This feedback is communicated to the State Coroner in a biannual report. The CLU continues to work effectively with the Office of the State Coroner to share lessons learned from mortality review to improve future patient care within the health care system.

Table 25 provides a summary of WA health system activity and response to coronial recommendations for the last three years. Recommendations are not considered completed until they have been implemented in *all* applicable services (ongoing recommendations may be partially implemented).

Table 25: Overview of Coronial Liaison Unit Activity (2014 to 2017)

	2014/15	2015/16	2016/17
Total number of health related coronial inquest findings received by CLU	16	28	22
Total number of health related recommendations (including mental health) ²⁰	10	21	8
Number of general health related recommendations	9	16	5
Number of general health related recommendations completed/closed ²¹	8	10	2
Number of mental health related recommendations	1	5	3
Number of mental health related recommendations completed/closed	1	4	2

The Coronial Review Committee was established in January 2014. This Committee operates closely with the CLU and provides a mechanism for recommendations to be considered in a collaborative manner with key stakeholders across the WA health system. The Committee exists to improve the governance and decision-making in relation to the state-wide implementation and response to coronial recommendations.

The following synopses are provided for coronial inquests where the coroner's findings and recommendations have implications for the WA health system and where findings have been released between July 2016 and June 2017 (the month and year that each of the findings were released are noted in brackets). All HSP are encouraged to use these summaries to raise awareness of important messages to facilitate continuous quality improvement. Full inquest findings can be accessed at the Office of the State Coroner's website:

<http://www.coronerscourt.wa.gov.au/default.aspx>.

²⁰ Health related recommendations are those that are within the WA health system's jurisdiction to action (directed to the Department of Health, a Health Service Provider, a Hospital, or a Contracted Health Entity; and/or are applicable to the services provided by the WA health system).

²¹ Status as at most recent report to the State Coroner (August 2017). Completed actions are recorded in the year that the findings were released, rather than year of completion.

Ms G, Miss C and Miss C (July 2016)

Ms G was a 46-year-old woman who was suffering from chronic paranoid delusions which included conspiracy theories that involved her children. The coroner found that Ms G took the lives of two of her daughters, and then ended her own life.

Ms G had come to the attention of the local police and subsequently the Mental Health Emergency Response Line (MHERL) however, Ms G declined to discuss any problems. The MHERL advised the local GP by letter however, it was reported at inquest that this information had not been seen. In the week leading up to her death, Ms G's paranoia and delusions had increased in conjunction with ongoing cannabis use. The coroner commented that Ms G's mental illness with chronic paranoid delusions exacerbated by cannabis abuse and prolonged stress (in the context of a custody dispute) contributed to the events leading up to the deaths. Three recommendations were made relating to child safety and how mental illness is considered by the Family Court during custody disputes.

Mr W (August 2016)

Mr W was a 14-year-old boy who died at a regional hospital following his collapse on a hiking trail during summer in the north of WA. His father called the local police and then the ambulance however evacuation from the area was complicated by the rocky terrain and the need to stop to perform CPR when he stopped breathing. The doctors at the hospital attempted to resuscitate Mr W but he succumbed to the effects of heatstroke.

Expert opinion at inquest was that earlier arrival of the ambulance staff would have been unlikely to have altered his prospects of survival. The coroner agreed with the doctor's opinion that the situation was unsalvageable from, at least, the time of Mr W's arrival at hospital. No recommendations were made.

Mr S (September 2016)

Mr S was a 38-year-old Sri Lankan man who was seeking asylum in Australia. Whilst in detention, concerns were raised about his mental health and arrangements were made for support in the community after he was granted a bridging visa. He deteriorated over the Christmas period and was taken to a metropolitan hospital emergency department for review.

Mr S was later discharged but deteriorated further in the following days. Attempts were made to seek assistance from the NGO's case manager instead of the emergency contact, however she was on leave. Mr S hanged himself and died three days later in ICU.

It was acknowledged by the coroner that there were missed opportunities at the metropolitan hospital for more comprehensive assessment and for follow-up with the community mental health service, however, no recommendations were made.

Mr E (September 2016)

Mr E was a 42-year-old man with an extensive history of substance abuse, psychosis and self-harming behaviour. He presented to two metropolitan hospitals in the month prior to his death, initially after self-harming. He had psychiatric review and was deemed to be a chronic risk of self-harm with little indication for psychiatric input.

Mr E returned home to a regional town and soon afterward was briefly detained by police whilst intoxicated. A number of months later, he was reported missing by his family. An open finding was made by the coroner after consideration was given to the possibility of suicide, homicide and deterioration of his general health. No recommendations were made.

Baby Z (September 2016)

Baby Z was a one month old baby who was born and treated at a metropolitan hospital and thereafter was under the care of his mother whilst she was incarcerated in prison. Baby Z was found unresponsive by his mother one morning and resuscitation efforts were unsuccessful. His mother had previously been observed co-sleeping and was counselled. It was not determined whether this was a factor on this occasion and the coroner made an open finding as to the manner of death. Whilst the coroner identified communication lapses between the three relevant agencies, the coroner was satisfied that these lapses did not contribute to the death, and commented that the care provided at hospital was of a high standard. No recommendations were made.

Mr B (September 2016)

Mr B was an 82-year-old man who had multiple complex medical issues, including insulin dependent diabetes, osteoporosis and a long history of depression which was well managed. He consulted a general practitioner on two occasions following a fall with subsequent pain in his shoulder and ribs along with other symptoms. An X-ray was ordered and was suggestive of moderate chronic obstructive pulmonary disease with no evidence of joint misalignment or fracture.

Two days after having the X-ray, Mr B presented to a regional hospital with what was thought to be a chronic respiratory issue with abdominal pain which increased in severity whilst at the hospital. He was given medication which significantly improved the pain and he was discharged. Overnight he deteriorated and collapsed whilst attempting to get into the car to return to hospital. Ambulance services attended however resuscitation efforts were unsuccessful.

A post mortem revealed that the cause of death was bronchopneumonia and acute bronchiolitis. The coroner noted that Mr B's illness was potentially treatable had it been identified in time, but accepted that the illness appeared to have been rapidly progressive and had not been evident two days earlier when the X-ray was reviewed. No recommendations were made.

Ms D (September 2016)

Ms D was a 48-year-old woman who had been diagnosed with multiple sclerosis with poor prognosis. Her husband, who suffered with major depression, was her full time carer. Ms D's husband did not provide adequate nutrition which led to malnutrition, sepsis and death. He was later convicted of manslaughter in a criminal court. Evidence presented to the coroner suggested that Ms D would have been expected to live for another six or seven years had she received the proper nutrition.

Ms D had attended two metropolitan hospitals in the months leading up to her death. Concerns about the husband's ability to care for Ms D were raised at the first hospital but this history was not known when she presented to the second hospital. No recommendations were made.

Mr W (October 2016)

Mr W was a 47-year-old man who was incarcerated in a regional prison at the time of his death. Following a fall, X-ray and CT scans confirmed a right sub-capital fracture of the neck of femur and he was admitted to hospital for surgery. Mr W had multiple comorbidities including obesity and liver disease. Following discharge, he fell and was readmitted to hospital where he was found to have dislocated the hip prosthesis, pneumonia and a pulmonary embolism. He later underwent a total colectomy and loop ileostomy but deteriorated and died as a result of multiple organ failure and sepsis complicating ulcerating colitis and intestinal obstruction. The coroner was satisfied with the high standard of medical and surgical care provided to Mr W and did not make any recommendations.

Mrs N (November 2016)

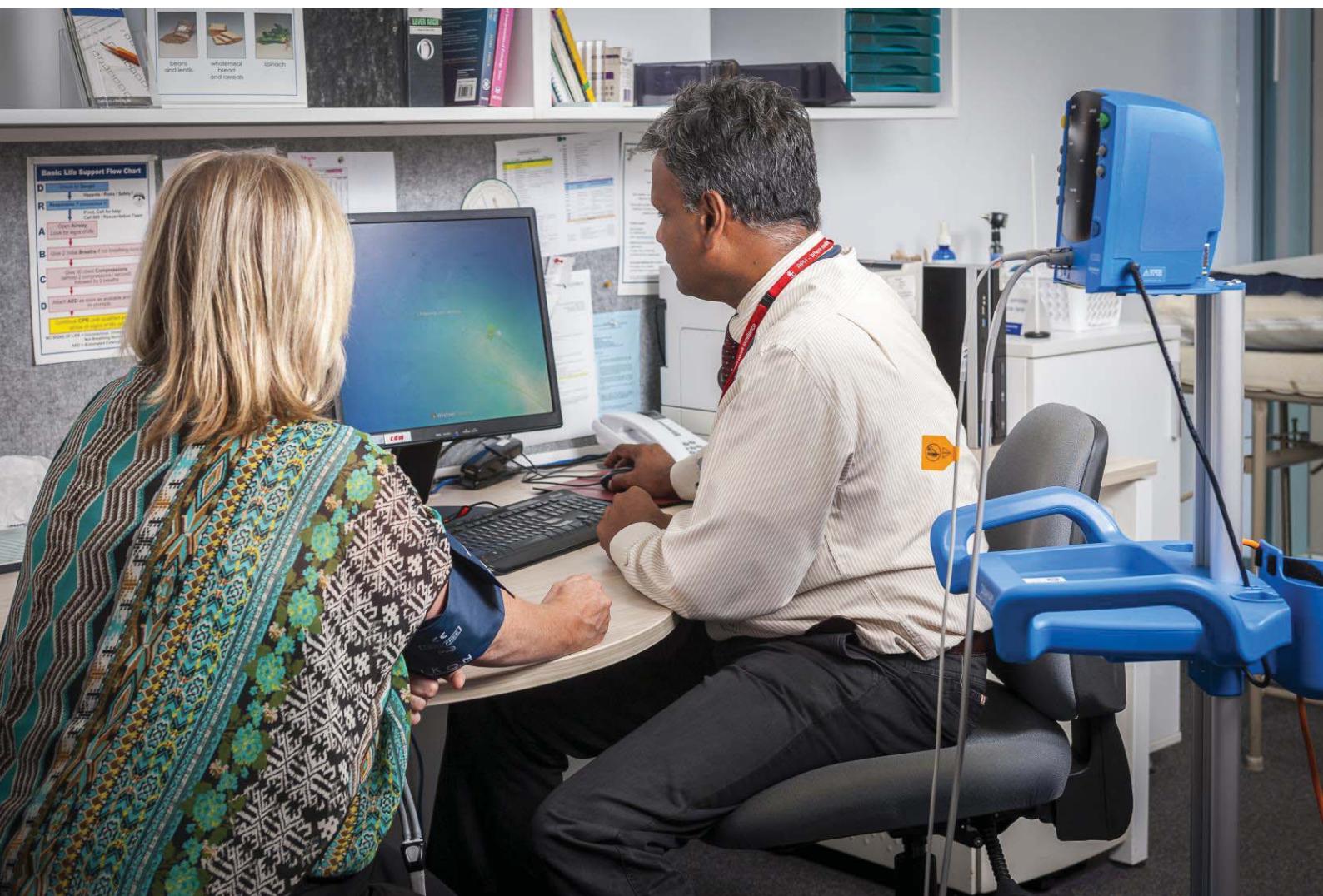
Mrs N was a 75-year-old woman with an extensive medical history including diabetes mellitus, ischaemic heart disease and a fractured hip, which limited her mobility. Mrs N died in hospital as a result of multiple organ failure due to sepsis from infected pressure injuries. Mrs N was resistant to residential care and was receiving home care services in the years prior to her death. She was given advice and aids to relieve the pressure to her sacral region however it appeared she was unwilling or unable to follow that advice.

The coroner found that there was no clear understanding by the family as to what care was to be delivered by the home care provider, and what responsibilities her family would have. The coroner made two recommendations relating to communicating the roles and responsibilities to all relevant parties, and ongoing assessment of the patient's needs and provider's capacity to deliver them.

Ms D (December 2016)

Ms D was a 22-year-old Aboriginal woman who died at a regional hospital while she was in the custody of police. Ms D had been escorted by the police to the hospital for medical attention on two other occasions in the two days prior to her death. Neither of the medical practitioners who reviewed Ms D on the first two occasions found evidence of illness and both declared her fit to be held in custody.

On the third day she was taken to hospital after becoming exceedingly unwell with little or no motor control of her limbs, tactile sensory deficit and vomiting. By the time she entered the hospital she was unresponsive. The coroner found that aspects of care fell short of the standards expected of a public hospital. The coroner made 13 recommendations, one of which was related to considering the sharing of medical information with police to enable the management of a detainee's care whilst in police custody.



Ms M (January 2017)

Ms M was a 47-year-old woman who had a history of post-traumatic stress disorder with marked physical somatisation and bipolar disorder, and was being treated by a community mental health service and a private psychiatrist. Ms M's distrust of authority and concerns about confidentiality may have impacted communication between the two services. Ms M had poor compliance with medication as she believed it exacerbated her physical symptoms, and was placed on a Community Treatment Order.

During an acute crisis, her private psychiatrist thought it best to admit Ms M as a voluntary patient to minimise her distress however, a number of assumptions and communication failures between the private psychiatrist and community mental health service led to her discharge from the community mental health service. Ms M died by suicide soon after her discharge. The coroner recognised that had the optimal supervision, treatment and care been provided to Ms M, it may not have necessarily prevented her death.

The coroner made three recommendations relating to the possibility of providing a community liaison coordinator who has knowledge of a person's treatment plan and can coordinate care across different services, their role in discharge and, the interpretation of patient confidentiality.

Ms U (January 2017)

Ms U was a 23-year-old woman who worked as a nurse in a regional town. She presented to the emergency department with vomiting and severe pain in her head and neck which she had been suffering with for some months. After being administered an anti-inflammatory and muscle relaxant, Ms U left the hospital telling the nurse that she felt better. Ms U went to her mother's house to rest but continued to vomit. Her mother found her unresponsive in her bed early the next morning and she could not be revived.

A post mortem examination revealed that Ms U died as a result of chronic hydrocephalus with brain swelling. The coroner was satisfied that the care Ms U received at hospital was adequate given her presentation. No recommendations were made.

Ms S (January 2017)

Ms S was a 69-year-old woman who had undergone a laparoscopic gall bladder removal and hiatus hernia repair at a metropolitan hospital. Surgery was reported as uncomplicated. A medical doctor reviewed her after she was noted to have an increased heart rate, but it was thought that Ms S could be discharged. There were no notes recorded in Ms S's medical record about the doctor's review.

Ms S felt unwell at home and was found unresponsive later that evening. Resuscitation efforts were unsuccessful. The cause of death was unascertainable and the coroner made an open finding. No recommendations were made.

Mr S (March 2017)

Mr S was a 49-year-old man who was incarcerated within three days of being discharged from a metropolitan mental health unit following a self-harm episode. Psychiatric review was planned, but had not occurred by the time of his death. When his prescription for an antipsychotic ran out, a further prescription was not sought despite Mr S's request for a medication review.

The coroner explored the care provided to Mr S whilst in prison, and the resuscitation efforts of paramedics in connection with advice given by an emergency consultant of a metropolitan hospital that transfer would be futile. The coroner found that psychiatric care provided to Mr S was less than the standard expected and that the lack of psychiatric review contributed to him taking his own life. One recommendation was made relating to provision of mental health care services in prisons.

Baby M (March 2017)

Baby M was a 36-day-old infant who was presented to a regional hospital three times in the four days prior to her death, each time with difficulty breathing. On the second and third occasions family members left with Baby M after waiting some time, but without her having been seen by a doctor.

Baby M's mother believed that a sixth year medical student was a doctor on the third occasion and left the hospital with Baby M against advice from the nursing staff. Baby M was found unresponsive in bed the following morning and taken to hospital, where it was determined that she had been deceased for some time.

The coroner found that death occurred as a result of acute necrotising pneumonia. Expert opinion at inquest indicated that Baby M's death might not have been prevented had she been admitted to hospital however, it would have given her the best opportunity of survival. The coroner noted the changes that have been made at the hospital since this death and did not make any recommendations.

Baby ST (March 2017)

Baby ST was born prematurely at 29 weeks and had a complicated neonatal course in hospital for eight months. She and her sibling were taken into the care of the Department of Child Protection and Family Support²², with their paternal grandparents as carers and ongoing support provided by Hospital in the Home (HITH).

Baby ST was found not breathing one afternoon and resuscitation was commenced but was ultimately unsuccessful. Baby ST died, aged nine-and-a-half months, as a result of pneumonia in an infant with a history of surgically repaired congenital heart disease, prematurity and failure to thrive. The coroner had no concerns with the care provided by Baby ST's grandmother, hospital staff or HITH staff, and made no recommendations.

²² Incorporated into Department of Communities under the Machinery of Government changes in 2017.

Mr H (March 2017)

Mr H was a 72-year-old man who died as a result of metastatic bladder cancer. He had been referred to an orthopaedic surgeon after an X-ray revealed severe degenerative changes to his right hip. An ultrasound performed in relation to a recurrent urinary tract infection showed bladder wall irregularity. He was referred to a urologist and his GP recommended that Mr H postpone the hip replacement until after the urology review. The urologist believed cancer was unlikely but made a referral for cystoscopy with a request this occur prior to the hip replacement. It was later determined that the hip replacement should not be delayed for the cystoscopy and the surgery was uneventful. Mr H presented to hospital just over a week following the surgery with sharp pain in his right flank and increased urination. Investigations revealed disseminated bladder cancer with extravesical invasion, left hydronephrosis, probably pulmonary and bone metastases with hypercalcaemia.

He was transferred to another metropolitan hospital but developed a chest infection, deep vein thrombosis and likely pulmonary embolism despite anticoagulation. He was palliated and later died. There was some discussion at inquest about whether it would have been preferable to delay the orthopaedic surgery until after the cystoscopy and the coroner found it would have at least given Mr H the opportunity to make an informed decision about treatment options. No recommendations were made.

Ms W (March 2017)

Ms W was an active 94-year-old woman with a medical background of osteoarthritis, hypertension and deafness. She was diagnosed with vulval carcinoma which brought about the insertion of a suprapubic catheter. The surgeon referred Ms W to another metropolitan hospital for specialist review however there was some confusion about whether Ms W was being discharged or transferred and she was conveyed in a taxi rather than an ambulance. When Ms W arrived she became acutely unwell. She was resuscitated and transferred to the ICU where severe urosepsis was diagnosed. She was palliated and died. The coroner found that while the management of Ms W's transfer was not optimal, it did not cause or contribute to her death. The coroner made no recommendations.

Ms B (May 2017)

Ms B was an 80-year-old woman who was admitted to a private metropolitan hospital for surgical repair of an atherosclerotic aortic aneurysm. Due to her stage 4 kidney disease, renal protective measures were employed, including the use of carbon dioxide as a contrast medium rather than iodine-based contrast. The use of carbon dioxide required a tap device to control the flow from a high-pressure cylinder however the surgeon had found that the TGA-approved kit was prone to failure and required a replacement to be fitted during surgery. The surgeon had routinely used a device he had customised however a two-way tap was not available for the surgery. A three-way tap was used for this particular surgery.

Ms B suffered a cardiac arrest during surgery and resuscitation efforts were unsuccessful. During this time 400mL of gas was aspirated from the central venous catheter. The coroner found that the cause of death was as a result of gas embolism complicating surgical repair of aortic aneurysm. The coroner noted changes made at the hospital prohibiting the use of non-TGA approved devices for carbon dioxide delivery systems and made no recommendations.

Ms S (June 2017)

Ms S was a 47-year-old woman who had a history of depression and suicide attempts, and was an involuntary patient under the *Mental Health Act* at the time of her death. She was admitted to a metropolitan hospital on a voluntary basis following an attempted suicide. Ms S was placed on a secure ward following her return from a period of absence when she absconded with intent to end her life. Electro-convulsive therapy was discussed as a treatment option with Mrs S but she declined.

After a period where she appeared to improve, Ms S was granted escorted leave which was uneventful. The following day she left the hospital and was soon afterward declared absent without leave by the hospital however, by that time, Ms S had died by manner of suicide. The coroner found that the supervision, treatment and care of Ms S was reasonable and generally appropriate in the circumstances. No recommendations were made.

Mr M (June 2017)

Mr M was a 50-year-old man who had been living with treatment resistant schizophrenia since his mid-twenties. Following release from prison, he spent time at a mental health hospital before transitioning to supported care in the community. Mr M was subject of a Community Treatment Order at the time of his death. He was last seen alive by neighbours outside his home one afternoon. When he failed to attend an appointment with the community mental health service the following day, staff attended his residence and found him deceased.

Mr M had been managed on clozapine for over a decade, with regular monitoring including blood count, weight, blood pressure and cholesterol and there had been no indications for further investigation. The coroner found that Mr M had died as a result of coronary atherosclerosis and that the supervision, treatment and care of Mr M was reasonable and appropriate in the circumstances. No recommendations were made.

KLD (June 2017)

KLD was a 21-month-old girl who was under the care of the Department of Child Protection and Family Support and living in foster arrangements at the time of her death. KLD and her sibling were moved from a metropolitan foster carer to an approved family member in a regional town to be closer to their biological parents.

After an unwitnessed fall, KLD started convulsing and stopped breathing. She was taken to the hospital where she was resuscitated and transferred to the metropolitan children's hospital. She underwent extensive examinations before treatment was withdrawn and she died. The coroner found death occurred as a result of hypoxic ischaemic encephalopathy following unexplained cardiac arrest and made an open finding as to the manner of death. The coroner made four recommendations relating to baseline assessments for children in care to be undertaken by a consultant paediatrician, case management and monitoring, recording and assessment of contact with Department of Communities workers, and resourcing for procurement of a CT scanner for the State Mortuary.

Review of Death

The Review of Death (ROD) Policy 2013 recognises the role that mortality review plays in improving the safety and quality of health care by complementing improvements identified through the investigation of clinical incidents and patient complaints.

Under the ROD Policy, all hospital deaths must be reviewed and categorised in terms of preventability within four months of the date of death. Appendix Two provides a diagrammatical representation of the interaction of reviews of deaths with clinical incident management and the Western Australian Audit of Surgical Mortality processes.

Data provided by public health care providers and private licensed health care facilities showed that for deaths occurring during the period 1 January to 31 December 2016, 93.5% of hospital deaths were reviewed within four months of the date of death (see Table 26).

Public and private hospitals are also required to indicate when notifying a SAC 1 clinical incident if the notification was an outcome of a mortality review process. In 2016, 27 (5.4%) SAC 1 clinical incident notifications were reported as originating from a mortality review process. This is the third year that Datix CIMS data has been used to identify SAC 1 clinical incidents notified following a mortality review process, and care should be exercised if comparing this figure to previous years.

Table 26: Review of Death Indicator

Indicator	Outcome
Percentage of deaths with a completed review within four months of the date of death (reflecting deaths that occurred between 1/1/2016 and 31/12/2016)	93.5%

Data comprises public and private hospitals. A completed review includes a death:

- a) where no further investigation is required
- b) with a completed WAASM audit
- c) notified as a SAC 1 clinical incident following identification of a potentially preventable death.

The ROD Policy was last released in 2013 and is now due for revision. This process involves the appraisal of national and international research evidence to identify best practices in the area of mortality review. Proposed changes to the Policy will also need to articulate with legislative requirements, clinical incident management, coronial review as well as business practices within the WA health system. Key to the development of any Policy development is feedback from Policy stakeholders. It is projected that the revised ROD Policy will be released in 2018.



Western Australian Audit of Surgical Mortality (WAASM)

The Western Australian Audit of Surgical Mortality (WAASM) is a review of surgical deaths using a peer review methodology. The WAASM is managed by the Royal Australasian College of Surgeons (RACS) and funded by the DOH. The WAASM has been operating since 2002, with data reported by calendar year.

Participation in the WAASM fulfils mortality review obligations mandated by the ROD Policy. All deaths that occur in WA hospitals (including private hospitals), where the patient was under the care of a surgeon are notified to the WAASM and reviewed.

The RACS' Continuing Professional Development Manual mandates surgeons' participation in the Australian and New Zealand Audit of Surgical Mortality (ANZASM)²³ if a surgeon is "in operative based practice, has a surgical death and an audit of surgical mortality is available in the surgeon's hospital." Non participation jeopardises a surgeon's registration with the Medical Board of Australia.²⁴

Surgeons are asked to complete a form about a death, and are asked to identify when there has been an area for consideration,²⁵ an area of concern²⁶ or an adverse event. The case then undergoes first line assessment, whereby it is de-identified and sent to a peer surgeon at a different hospital for review. Second-line assessment is the process whereby cases are reviewed by a second peer surgeon along with the patient's medical notes. Cases are only referred for second-line assessment if an area of concern or adverse event has been identified, or where there is the potential for lessons to be learned (refer to Appendix Three: Western Australian Audit of Surgical Mortality (WAASM) Process for an overview of the audit process).

In 2016, 580 deaths met the WAASM criteria across public and private hospitals. Twelve per cent (n=50) of cases were referred for second-line assessment (of the 414 cases with a returned first-line assessment).

For the WAASM, an adverse event is defined as "an unintended injury caused by medical management, rather than by the disease process, which is sufficiently serious to lead to prolonged hospitalisation, lead to temporary or permanent impairment or disability of the patient at the time of discharge or contribute to/or cause death." The WAASM has identified 11 adverse events that caused death in 2015 (two of these were considered definitely preventable) and four adverse events that caused death in 2016²⁷ (two were considered definitely preventable; see Table 27).

²³ <http://www.surgeons.org/for-health-professionals/audits-and-surgical-research/anzasm/>

²⁴ Royal Australasian College of Surgeons (2013) WA Audit of Surgical Mortality (WAASM) Annual Report 2013.

²⁵ Area of consideration = clinician believes an area of care could have been improved.

²⁶ Area of concern = clinician believes an area of care should have been better.

²⁷ 2016 data includes that for which the audit process was complete at 31 March 2017.

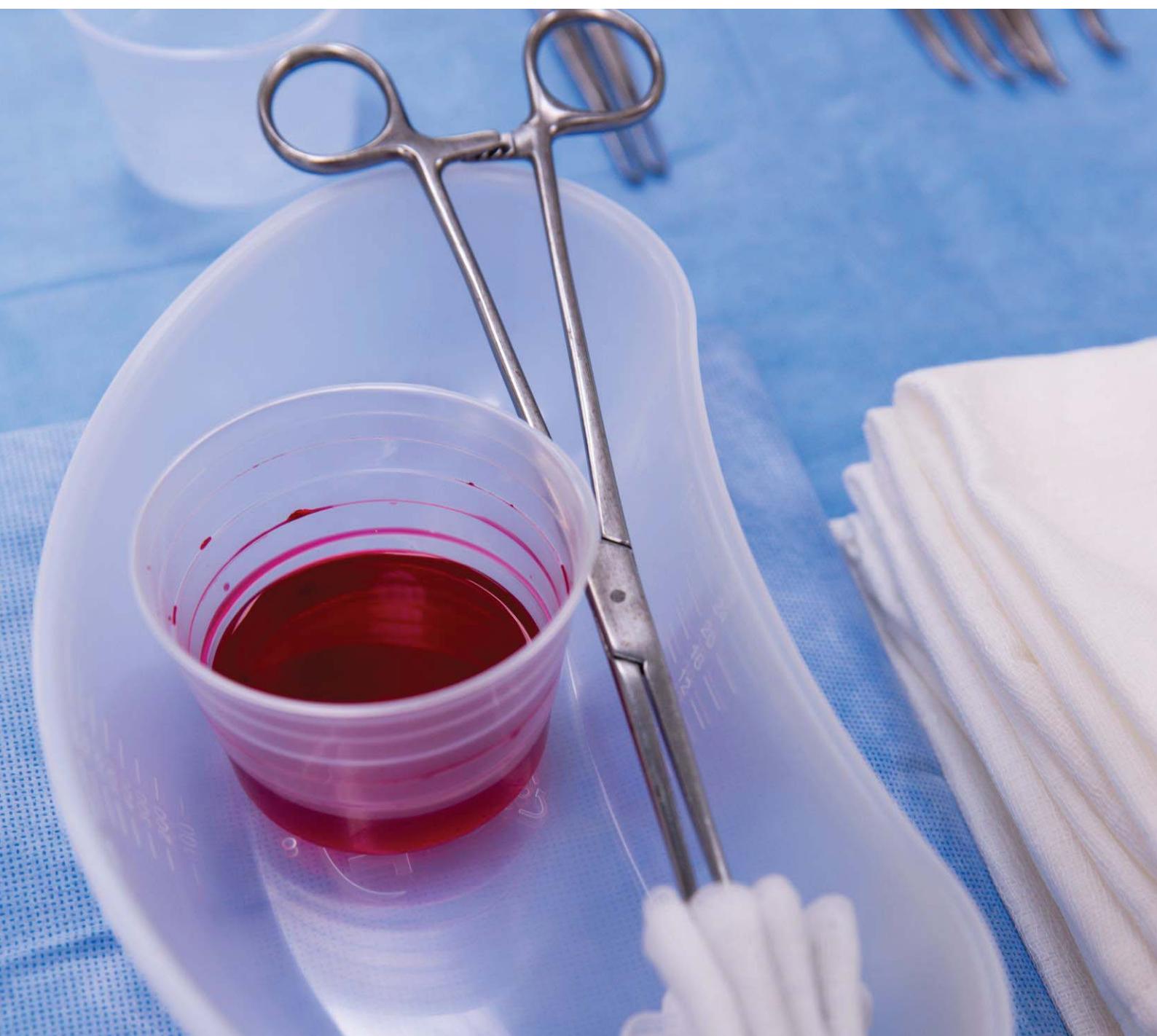
Table 27: Frequency Adverse Events Causing Death that were Considered Definitely Preventable and Associated Deaths (2006 to 2016)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AEs considered definitely preventable ^{a,b}	4	7	6	5	4	7	4	1	6	2	2
Deaths associated with preventable AE ^a	4	6	6	5	3	7	2	1	4	2	2
Total surgical deaths ^c	740	667	682	602	592	570	592	566	578	581	580
Deaths as % of surgical deaths	<1%	<1%	<1%	<1%	<1%	1.2%	<1%	<1%	<1%	<1%	<1%

^a Includes cases complete as at 31 March 2017 (incomplete cases excluded).

^b Multiple adverse events that caused death and were considered definitely preventable may have been recorded for a single surgical death.

^c For years 2006-2008 inclusive surgical deaths are total deaths reported to WAASM; for years 2009-2016 inclusive surgical deaths are those reported as meeting the WAASM criteria in the WAASM Annual Reports.



In 2016, four adverse events causing death were identified and included accidental arterial puncture, aspiration pneumonia during anaesthesia, delay in recognising complications and premature discharge from hospital (see Table 28).

Table 28: Frequency of Adverse Events Causing Death for 2014 to 2016 (Including Events that were Considered Not Preventable)

Adverse Event	2014	2015	2016
Accidental arterial puncture	-	-	1
Arterial complication of open surgery	1	-	-
Arterial or venous complication	-	1	-
Aspiration pneumonia during anaesthesia	-	-	1
Better to have performed more limited surgery	1	-	-
Decision to operate	1	1	-
Delay in diagnosis	-	-	-
Delay in recognising complications	1	-	1
Diagnosis missed by medical unit	-	1	-
Diagnosis missed by surgeon at operation	1	-	-
Extension of ischaemia after open surgery	1	-	-
Heart complication of open surgery	1	-	-
Inadequate post-operative assessment	1	-	-
Inadequate post-operative cardiac assessment	1	-	-
Injury caused by fall in hospital	1	1	-
Injury to heart during open surgery	-	1	-
Injury to small bowel during laparoscopic operation	1	-	-
Injury to spleen during endoscopic operation	-	1	-
Intra- or post-operative bleeding during or following open surgery	1	1	-
Open surgery – organ related technical	-	1	-
Post-operative care unsatisfactory	-	1	-
Post-operative pancreatitis	1	-	-
Premature discharge from hospital	-	-	1
Pulmonary embolism	-	1	-
Secondary haemorrhage	1	-	-
Septicaemia – cause unspecified	1	-	-
Unsatisfactory medical management	-	1	-
Total	15	11	4

2016 data includes those cases that were complete at 31 March 2017. Multiple adverse events that caused death may have been recorded for a single surgical death.

A total of 176 adverse events were identified during the period 2006-2016. The most frequently reported adverse events by surgeon assessors over the audit period of 2006 to 2016 were: complications of surgery (n=31), anastomotic leak (n=23), delay to treatment (medical and surgical) (n=17), and medical management/assessment issues (n=15; see Table 29).

Table 29: Most Frequently Reported Adverse Events Causing Death 2006 to 2015 (Including Events that were Considered Not Preventable)

Adverse Event	2006-2016
Complication of surgery	31
Anastomotic leak	23
Delay to treatment (medical and surgical)	17
Medical management/assessment issues	15
Bleeding associated with operation	14
Pulmonary embolus	11
Injury caused by fall in hospital	10
Decisions relating to surgical treatment	9
Gastrointestinal perforation	8
Infection (including septicaemia)	7
Others	31
Total	176

Only events with frequencies ≥ 5 have been included. Adverse events have been grouped by the PSSU based on event descriptions provided by the surgeon assessors for the WAASM.

The WA Audit of Surgical Mortality Annual Reports can be accessed online at:
<http://www.surgeons.org/for-health-professionals/audits-and-surgical-research/anzasm/waasm/#Reports>.

The ANZASM provides central oversight for each of the jurisdictional surgical audits, including WAASM, and provides national overview of data. The PSSU encourages all health practitioners to review the case note review booklet for educational and professional development purposes. The most recent booklet can be accessed at: <http://intranet.health.wa.gov.au/osqh/reports/> (access is restricted to WA Health staff).

Consumer Feedback Review

Consumers are at the heart of what we do and to whom all WA health system staff are ultimately accountable. The opinions and experiences of consumers following their interaction with WA hospitals and health care providers can tell us what we are doing well and provide an invaluable indication of service improvement opportunities that would be highly regarded by consumers. Implementation of these service improvements will not only improve consumer satisfaction, but is also likely to lead to improvements in the safety and quality of services provided by the WA health system. Indeed the 2017 safety and quality review conducted by Professor Hugo Mascie-Taylor highlighted the need for the WA health system to learn from consumer feedback, with a recommendation that the DOH take a facilitative role to coordinate system-wide learning from all safety and quality monitoring activities, including consumer feedback.

The Datix Consumer Feedback Module (CFM), used by the WA health system to record consumer feedback, provides a three tier classification system to specify the subject matter of complaints and contacts received. Each tier of the classification system provides increased detail of the subject matter. At the point of implementation of the Datix CFM, only the first two tiers of the classification system were made mandatory fields, meaning these tiers had to be completed in order for a complaint or contact to be lodged. In November 2016, the Datix CFM Business Advisory Group agreed to change system functionality, making the third tier of the classification system a mandatory field. Making the third tier mandatory has improved the richness of data available for extraction from the system. This enriched data will enable increased learning from consumer feedback and assisted in the establishment of relevant improvements.

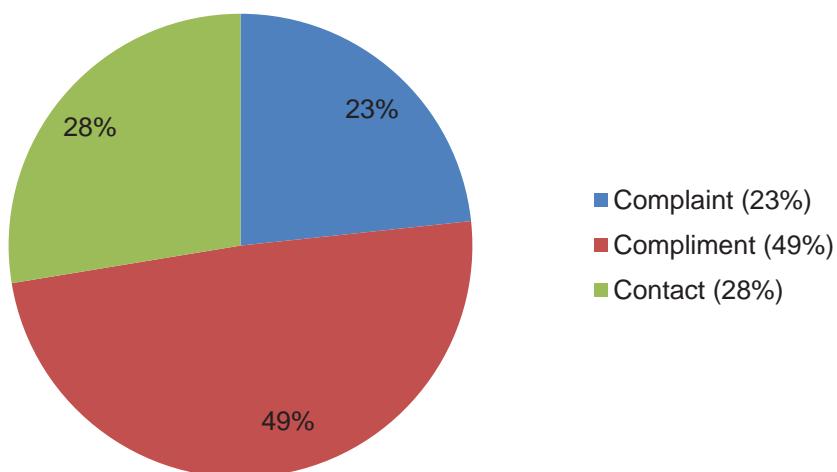
Following the enactment of the *Health Services Act 2016* on July 1 2016, it was identified that the annual reporting of complaints data to the Health and Disability Services Complaints Office (HaDSCO) under section 75 of the *Health and Disability Services (Complaints) Act 1995*, a task previously completed by PSSU, was a responsibility that was to be transitioned to the HSP. For the 2016/17 reporting year, PSSU adopted a facilitative and supportive role, including delivering a training session and provision of tools for completion of reporting, with HSP adopting responsibility for preparation and submission of data to HaDSCO.

Consumer feedback recorded in Datix CFM can be captured from a number of sources; that is, directly from the consumer or a representative of the consumer, for example a parent, spouse, or carer. However all feedback is consumer initiated, meaning a consumer had to actively approach a WA health system staff member, fill out a feedback form, or provide feedback electronically in order for a WA health system staff member to enter the feedback in Datix CFM. In contrast, the annual Patient Evaluation of Health Services (PEHS) survey, which is administered by the Health Survey Unit, invites a random sample of WA health system patients who meet specific eligibility criteria to participate in an assessment of their most recent health care experience. Respondents are asked about a range of aspects of their care. As the PEHS does not require consumers to initiate the feedback cycle it may capture feedback from some consumers that would not otherwise be captured in Datix CFM. In 2016/17, 4,448 adult inpatients participated in the survey. Information from the PEHS has been included in this report to provide further richness to the data available from Datix CFM. The PEHS survey does not include mental health patients; therefore PEHS information is not included in the Mental Health section of this report. All PEHS results presented in this report are derived from adult inpatients. More information regarding the PEHS is available from the Senior Research Officer at PEHS@health.wa.gov.au.

Consumer Feedback Overview

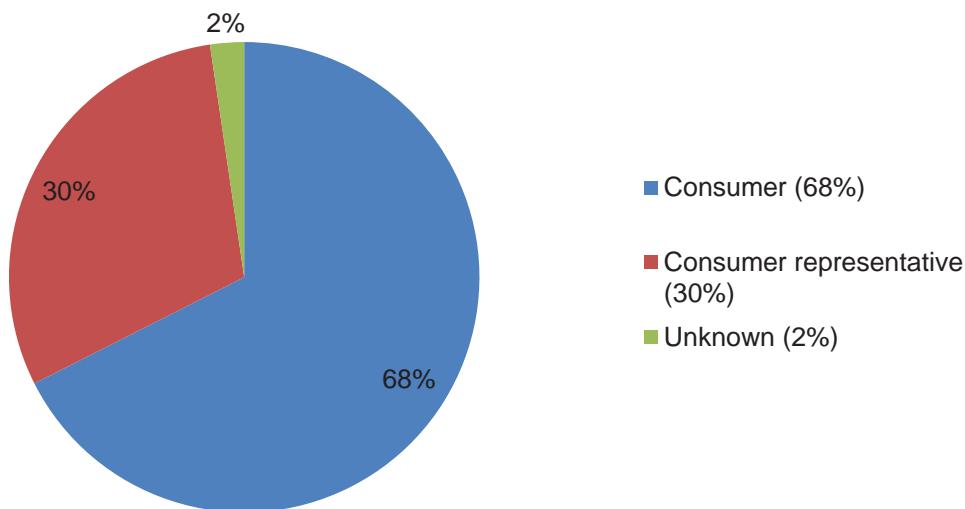
WA health system consumers and their representatives provided feedback on 18,029 occasions in 2016/17 (see Figure 50). Of these, 49% (n=8,851) were positive in nature, provided as compliments to the WA health system. In contrast, 23% (n=4,203) of feedback, provided as complaints, depicted a negative experience of consumer interaction with the WA health system. The remainder of feedback received by the WA health system (28%; n=4,975) was provided as contacts, which can include requests for information or assistance, or informal complaints regarding a minor aspect of service that were resolved at the point of first contact.

Figure 50: Type of Consumer Feedback Received by WA Health for 2016/17²⁸



In 2016/17, 68% (n=12,176) of feedback items were received directly from consumers, with a further 30% (n=5,433) received from consumer representatives, as displayed in Figure 51. This is consistent with the 2015/16 results.

Figure 51: Person Reporting the Feedback Item to WA Health for 2016/17



²⁸ It is mandatory for all complaints received by WA hospitals and health care providers to be entered in Datix CFM, and all complaints relating to public patients at public-private partnership hospitals (JHC, PHC and SJOG Midland) to be reported to PSSU. Recording of compliments and contacts in Datix CFM is optional. Public-private partnership hospitals do not provide PSSU with compliments and contacts data.

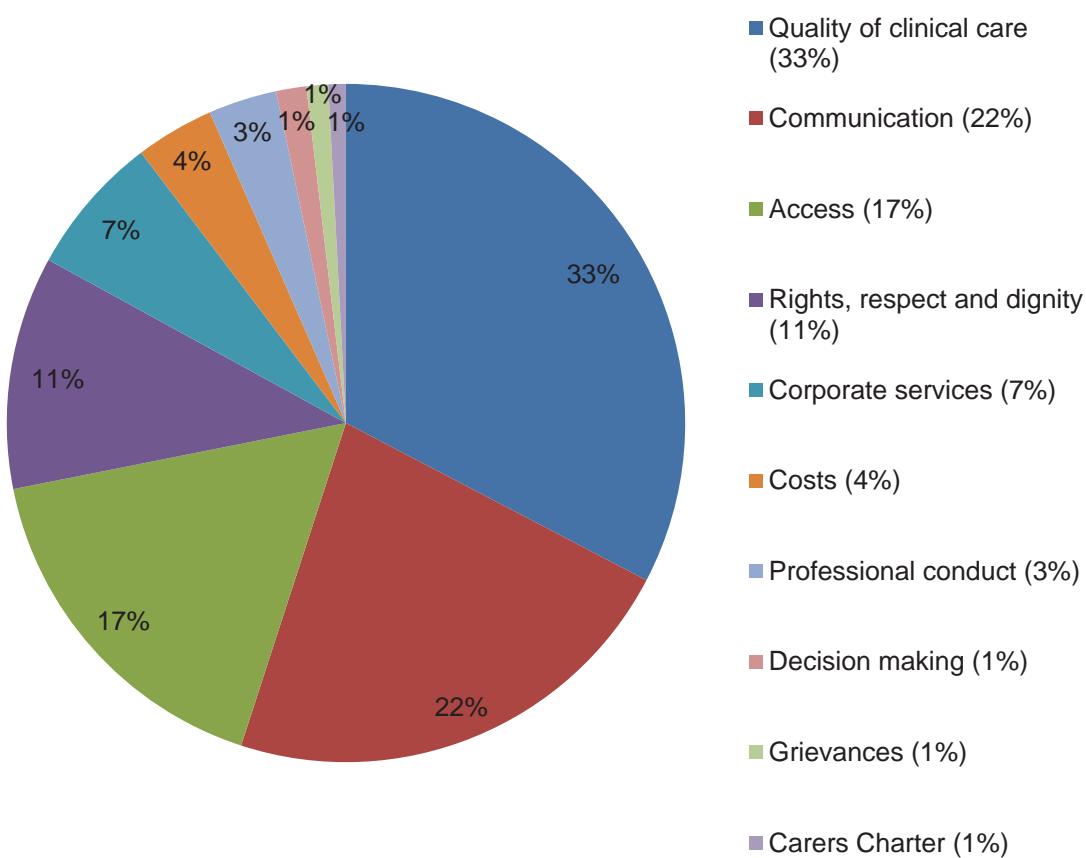
The reporting of consumer feedback can be limited if patients are not aware of how they can give feedback. In 2016/17, 75.9% of respondents to the PEHS survey were aware that each hospital has a complaint service. Of course awareness is only one factor impacting the reporting of feedback, but WA health system staff should be promoting the availability of a consumer feedback service to all consumers.

Complaints Overview

Each complaint received by HSPs must have at least one complaint issue identified, with the possibility for multiple issues to be identified in one complaint. Complaints are categorised in accordance with the two level categorisation described in the *Health and Disability Services (Complaints) Regulations 2010*, with a further third level of categorisation made mandatory during the 2016/17 year for the WA health system.

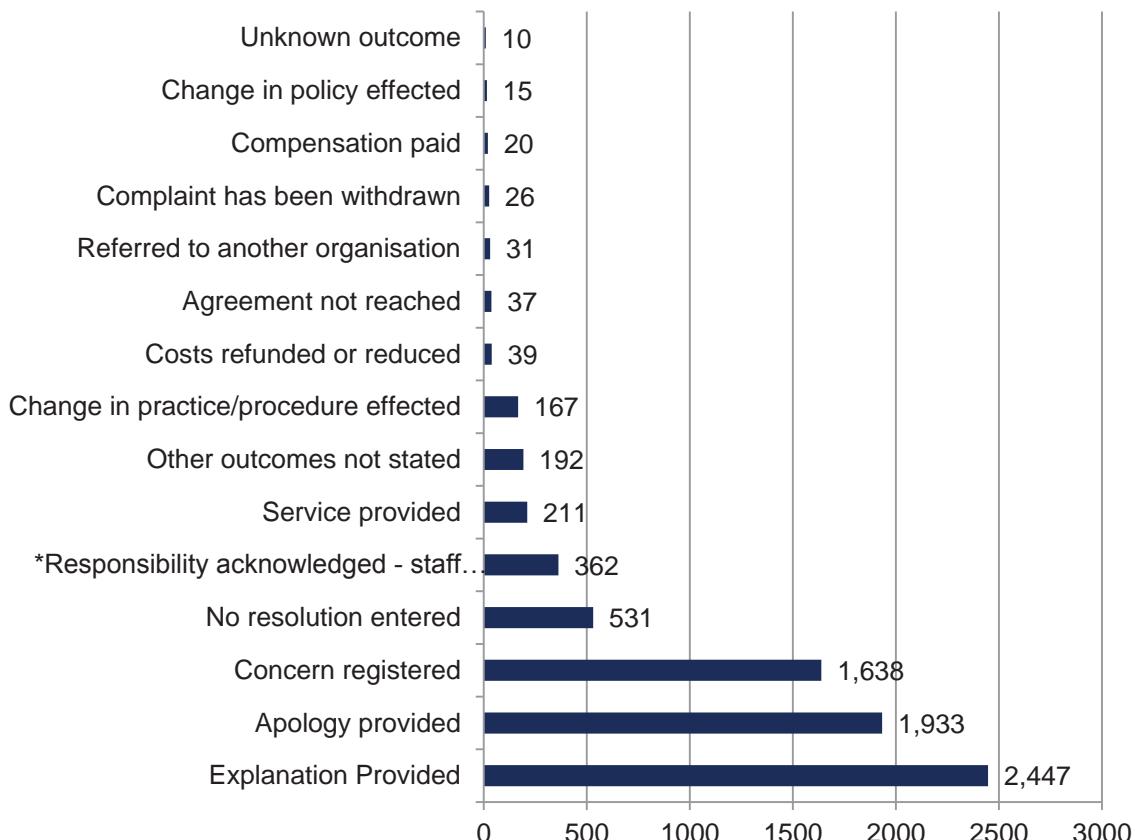
In 2016/17 a total of 7,076 issues were identified in the 4,203 complaints received. Issues are recorded as reported by the person reporting the feedback to the hospital or health service. The proportion of issues identified in each category in 2016/17 is displayed in Figure 52. Only analysis of the top four complaint categories reported in 2016/17 are presented in this report.

Figure 52: Issues Identified by Person Reporting the Feedback in Complaints Received by the WA Health System for 2016/17



Part of the complaint management process is the determination of a resolution. Each closed complaint record will have at least one resolution achieved, with the possibility of multiple resolutions being achieved in one complaint record. The total resolutions achieved across the WA health system in 2016/17 are displayed in Figure 53. These results show that overwhelmingly, the WA health system has worked with consumers to resolve complaints by listening to them, explaining the event to them, and apologising for the event.

Figure 53: Complaints Resolution Achieved in 2016/17²⁹



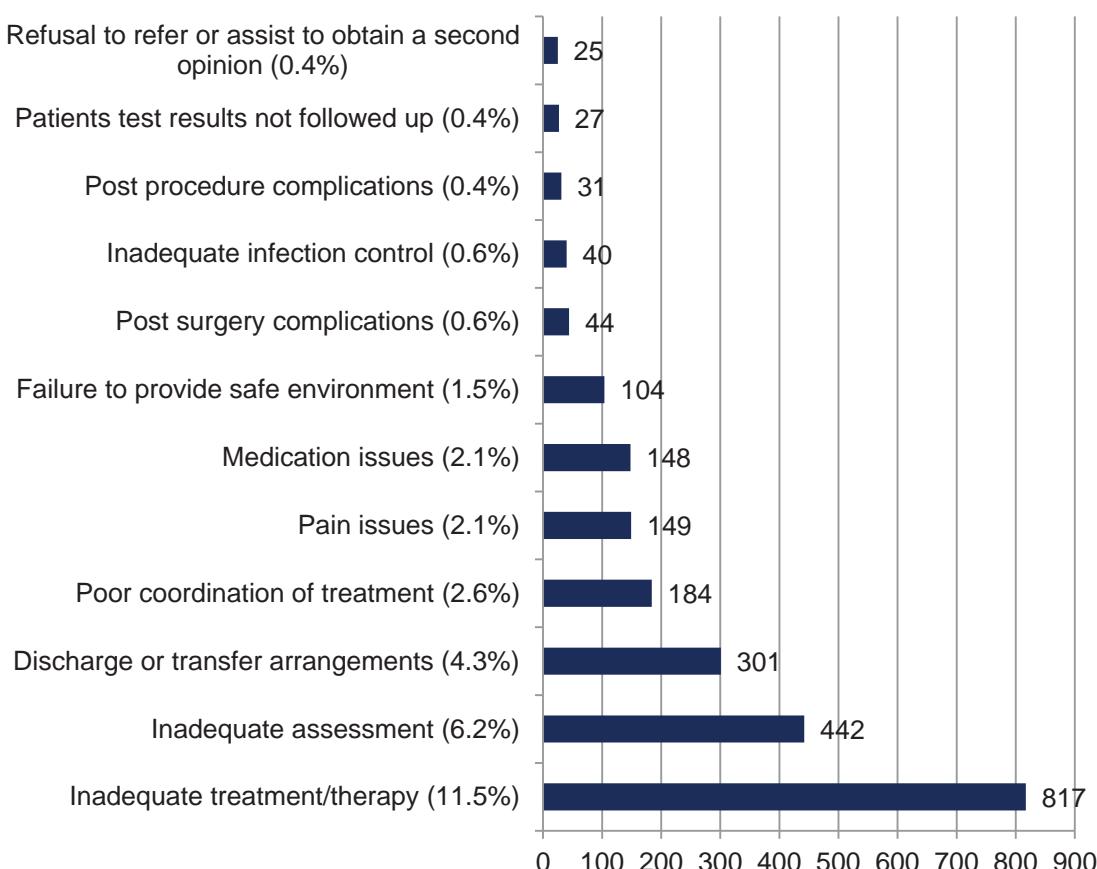
*Refers to responsibility acknowledged- staff counsel/development provided.

²⁹ Resolution information is not received for public-private partnership hospitals (JHC, PHC and SJOG Midland).

Quality of Clinical Care Complaint Issues

In 2016/17 there were 2,312 complaint issues in the quality of clinical care category. This comprises 33% of the total complaint issues reported by HSP over the year. The majority of quality of clinical care issues related to inadequate treatment/therapy (n=817; 11.5% of total issues) and inadequate assessment (n=442; 6.2% of total issues; see Figure 54). Arrangements made at the point of discharge or transfer were also viewed to be unsatisfactory on 301 occasions (4.3% of total issues).

Figure 54: Frequency and Percentage of Complaint Issues Relating to Quality of Clinical Care (2016/17)



In 2016/17, 87.5% of respondents to the PEHS survey considered their admission to be worthwhile in achieving the expected results, and over 91.8% stated they usually or always had confidence in their doctor and/or nursing staff. The survey also revealed that 81.9% of respondents considered arrangements at discharge with the doctor and others continuing their care to be good or excellent. Of those patients who said they needed special equipment, 66.0% stated that hospital staff organised special equipment required for discharge.

Key Messages for Quality of Clinical Care Complaint Issues

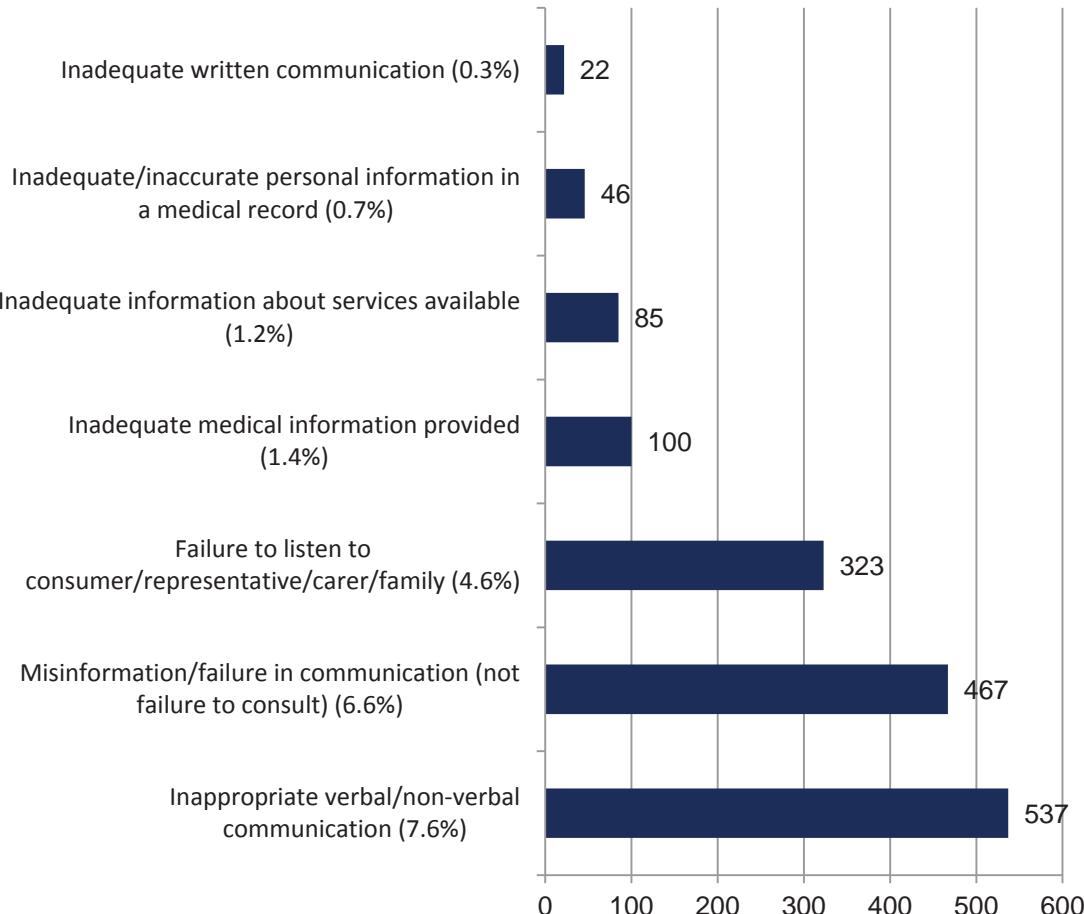
Due to the clinical focus of the category, ‘Quality of Clinical Care’ complaint issues are some of the most likely to align with the potential occurrence of clinical incidents. They may encompass inadequate standard of performance of treatment/procedure, delay in or negligent treatment, an overlooked or wrongly identified condition, inadequate investigation and level of diagnosis, unsuitable or delayed discharge or transfer, or poor communication between and within treating teams. Complaints in this category can be viewed as early warning signs of areas of clinical care where quality improvement could reduce the level of harm experienced by a consumer.



Communication Complaint Issues

There were 1,580 communication issues reported in complaints to the WA health system in 2016/17, constituting 22% of total complaint issues. Inappropriate communication continues to be the most commonly reported issue with 537 (7.6% of total issues) instances of inappropriate communication being reported across the WA health system in 2016/17 (see Figure 55).

Figure 55: Frequency and Percentage of Complaint Issues Relating to Communication (2016/17)



Aspects of communication are widely assessed in the PEHS survey. In 2016/17, over ninety per cent of respondents reported that health care professionals checked that they understood the information given to them. This suggests that one out of every 10 times, WA health staff do not check whether patients understand information relevant to some aspect of their care. The majority of respondents (85.6%) rated the way health care professionals answered their questions as good or excellent.

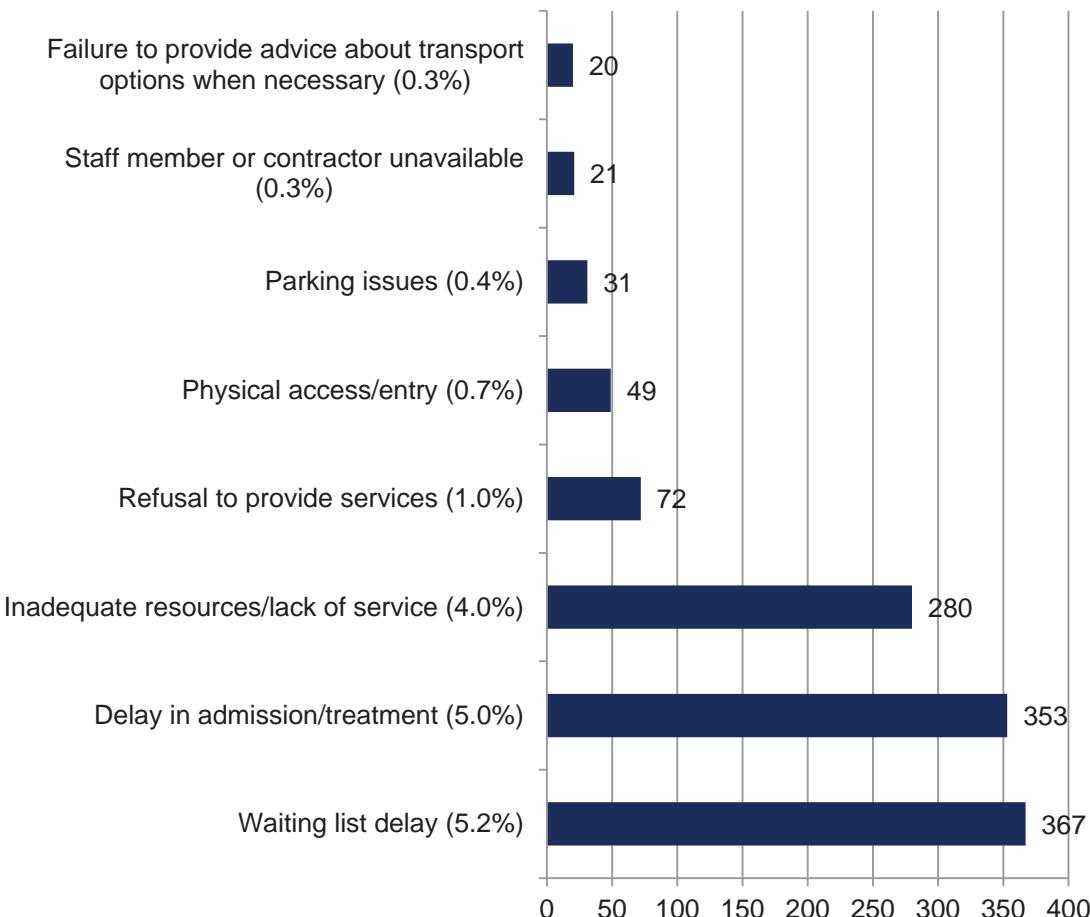
Key Messages for Communication Complaint Issues

The clinical environment is a busy environment, but taking the time to communicate effectively with patients can make a considerable difference to their perceived care, improve patient outcomes, and also help reduce potential harm and clinical incidents. WA health system staff should be mindful of their interactions with consumers. Checking that your patient has understood information provided, asking if they have any questions, and answering any questions should be routine for all health care professionals.

Access Complaint Issues

Complaint issues encompassing access to health care represented 17% of total complaint issues (n=1,194). Issues surrounding delays in access constituted the majority of issues in this category (waiting list delay and delay in admission/treatment, cumulatively n=720; 10.2% of total issues; see Figure 56). Inadequate resources/lack of service issues composed 4.0% of total issues, with 280 issues reported across the WA health system.

Figure 56: Frequency and Percentage of Complaint Issues Relating to Access (2016/17)



With regard to information provided to patients on the reason for any long delays the PEHS survey revealed that 74.7% of respondents felt they received 'as much as needed', 14.0% 'wanted more', and 10.8% 'got none'. Only 0.5% stated they received 'too much' information. Overall, 15.3% of respondents reported having their appointment cancelled or changed at least once.

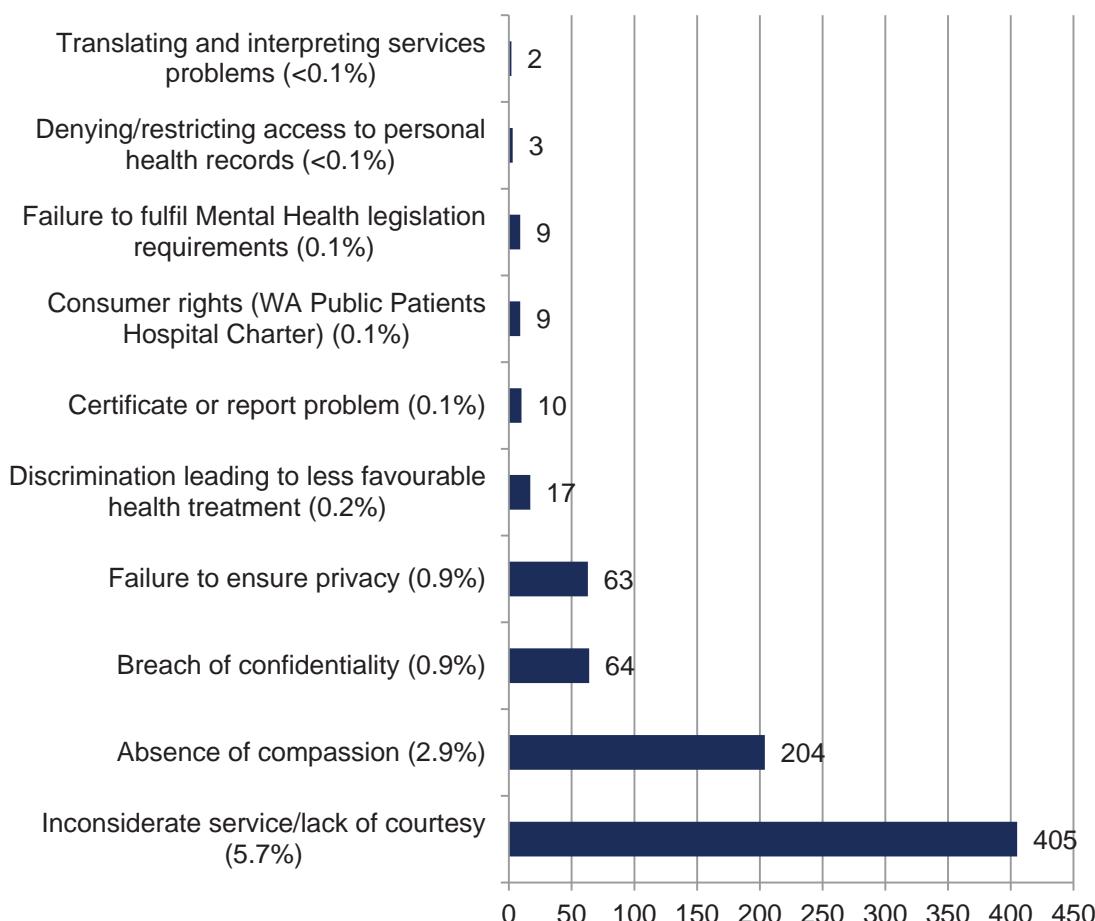
Key Messages for Access Complaint Issues

In the public health system where there are limited resources, delays in treatment of some consumers are inevitable. Based on the results from the 2016/17 PEHS survey, approximately 24.8% of consumers reported receiving an inadequate explanation of the reason for the delays in their care. Improving this communication may help to increase consumer satisfaction with access to the WA health system services. Ongoing review of distribution of limited resources is necessary to ensure those consumers at highest risk are able to access the health care services they require.

Rights, Respect and Dignity Complaint Issues

A total of 786 issues relating to rights, respect and dignity were reported across the WA health system in 2016/17 (11.1% of total issues). Inconsiderate service/lack of courtesy and absence of compassion continue to be the most common issue types in the rights, respect and dignity category, with 405 and 204 issues reported respectively (5.7% and 2.9% of total issues reported, respectively; see Figure 57). Reported breaches in confidentiality were the third most common type of issue reported in this category with 64 complaint issues constituting 0.9% of total issues.

Figure 57: Frequency and Percentage of Complaint Issues Relating to Rights, Respect and Dignity (2016/17)



The PEHS survey asks “How often were you treated with politeness and consideration?”. In 2016/17 0.7% of respondents replied ‘never’, 4.8% replied ‘sometimes’, 8.1% replied ‘usually’, and 86.4% stated that they were ‘always’ treated with politeness and consideration. The PEHS survey also asks “Were you asked who, other than hospital staff, could be given information about your condition?” to which 34.7% replied ‘no’ and 65.3% replied ‘yes’.

Key Messages for Rights, Respect and Dignity Complaint Issues

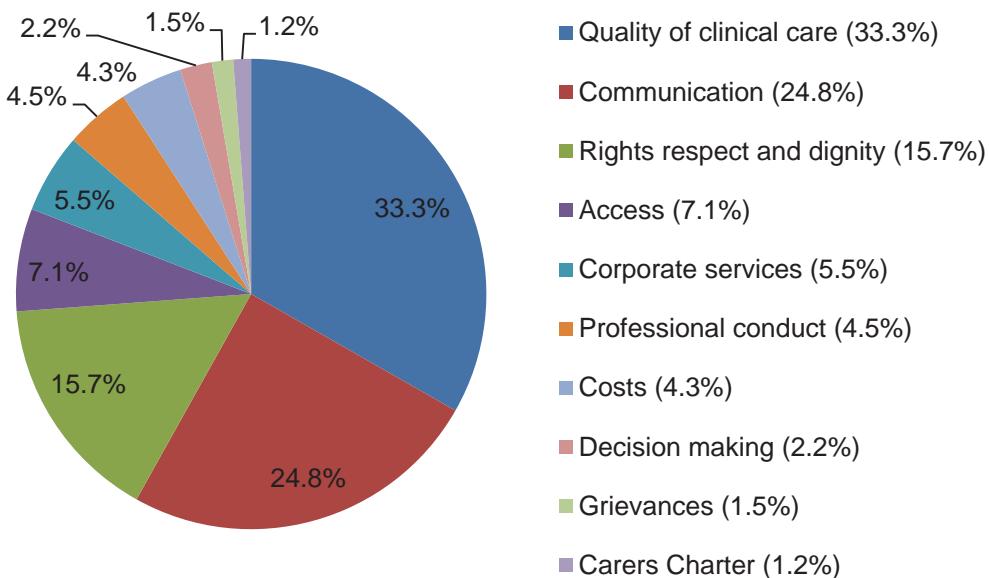
All consumers of WA health system services deserve to be treated with respect. Adopting a patient-centred care model can help a service focus on enabling staff to meet consumer expectations regarding their rights, respect and dignity. Such an approach can lead to increased satisfaction for consumers as well as health care professionals. Concentrating on politeness, kindness, helpfulness and compassion for all individuals involved in the WA health system can go a long way to improve consumer perception of the WA health system.

Mental Health Complaints

For the purpose of this section, the term mental health complaint describes those complaints notified against HSP providing specialised mental health care in community services or hospitals, and is presented as a subset of the total complaint data described previously.

There were 495 mental health complaints reported across the WA health system in 2016/17. These complaints raised 821 issues, reported in each of the categories described in the *Health and Disability Services (Complaints) Regulations 2010* as displayed in Figure 58.

Figure 58: Issues Identified by Persons Reporting the Feedback in Mental Health Complaints Received by the WA Health System for 2016/17

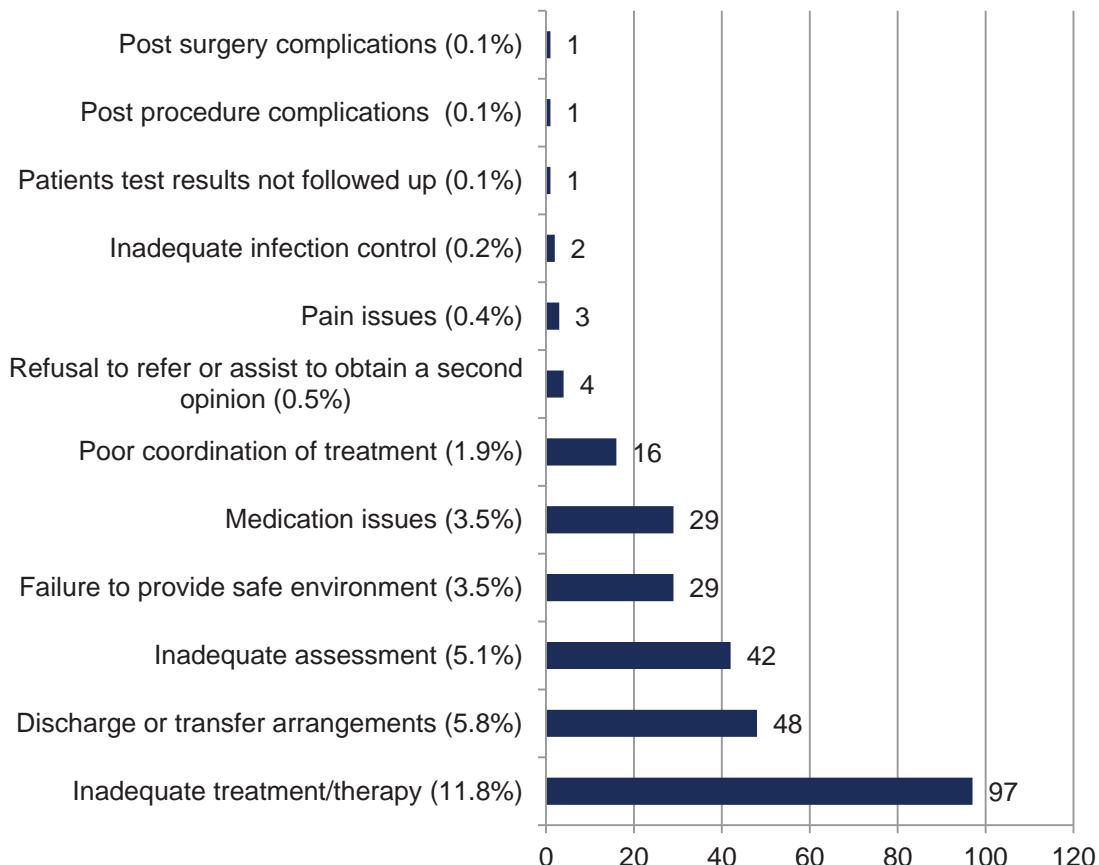


Mental Health Complaint Issues Relating to Quality of Clinical Care

In 2016/17, 273 issues in mental health complaints received by the WA health system related to the quality of clinical care category, comprising 33.3% of the total mental health complaint issues received. As displayed in Figure 59, the most frequently reported quality of clinical care issue was inadequate treatment/therapy (n=97, 11.8% total mental health complaint issues). Examples of complaint issues encompassed in this category include issues surrounding inadequate amount or standard of therapy, failure in duty of care, and perceived negligent treatment.

Inadequate discharge planning, and premature, unsuitable, or delayed discharge or transfer constituted the majority of issues reported in the category discharge or transfer arrangements (n=48; 5.8% of total mental health complaint issues). Consumers who made complaints with regard to inadequate assessment (n=42; 5.1% of total mental health complaint issues) were commonly concerned about an inadequate level of diagnosis.

Figure 59: Frequency and Percentage of Mental Health Complaint Issues Relating to Quality of Clinical Care (2016/17)



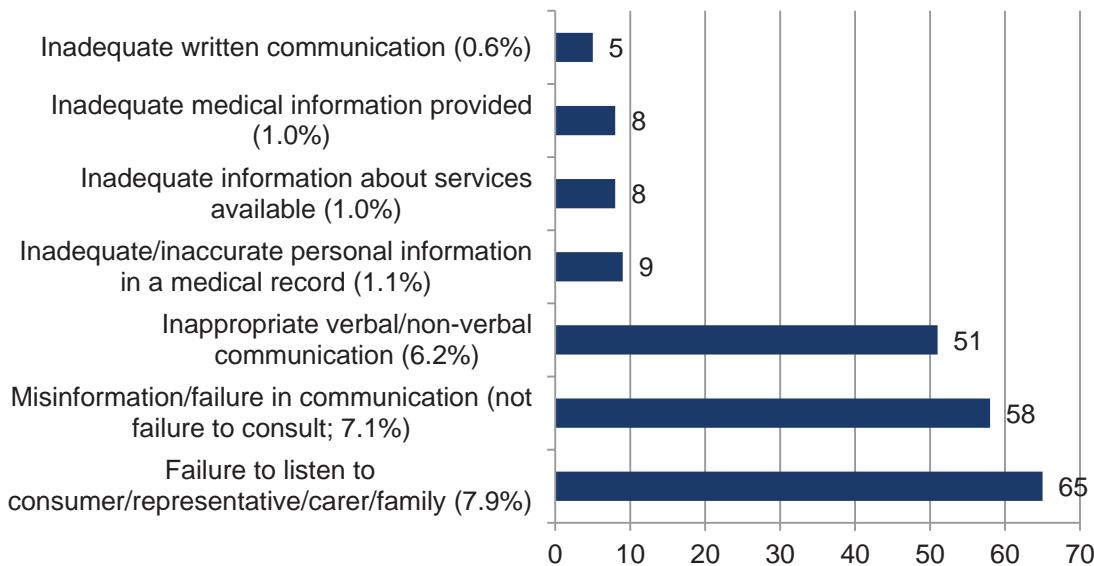
Percentages relate to total mental health complaint issues.

Mental Health Complaint Issues Relating to Communication

Issues relating to communication comprised 24.8% (n=204) of total issues reported in mental health complaints across the WA health system in 2016/17, with a breakdown of this category displayed in Figure 60.

Failure to listen to consumer/representative/carer/family was ranked higher in mental health complaint issues than total health complaint issues, with 7.9% (n=65) of mental health issues relating to this category (in comparison n=323; 4.6% for total health complaint issues). This category captures issues surrounding dismissal of consumer attempts to communicate with health care professionals or opportunities to communicate with health care professionals not being provided to consumers.

Figure 60: Frequency and Percentage of Mental Health Complaint Issues Relating to Communication (2016/17)



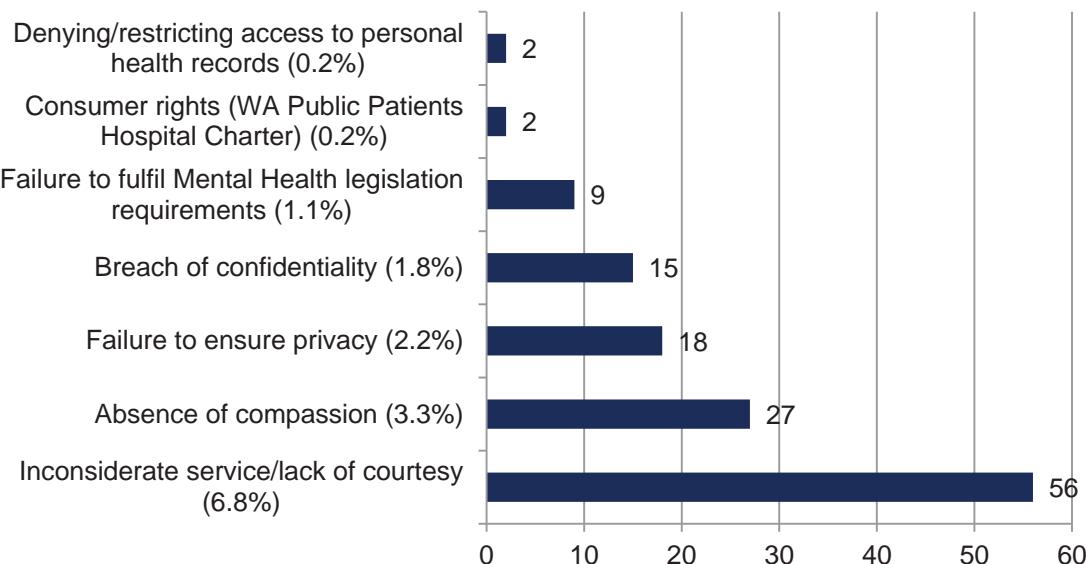
Percentages relate to total mental health complaint issues.

Mental Health Complaint Issues Relating to Rights, Respect and Dignity

There were 129 issues reported in mental health complaints in 2016/17 that related to rights, respect and dignity, which constituted 15.7% of total mental health complaint issues across WA hospitals and health care providers.

The most frequently reported issue was inconsiderate service/lack of courtesy (n=56; 6.8% total mental health complaint issues), with a lack of politeness or kindness, and an unhelpful manner being reported in this category (see Figure 61).

Figure 61: Frequency and Percentage of Mental Health Complaint Issues Relating to Rights, Respect and Dignity (2016/17)

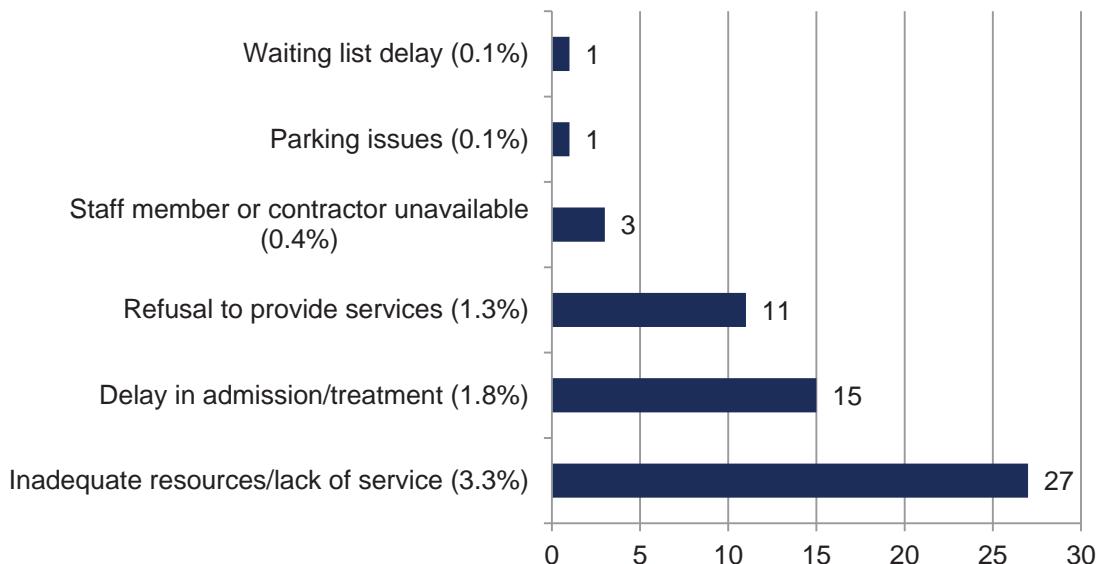


Percentages relate to total mental health complaint issues.

Mental Health Complaint Issues Relating to Access

Mental health complaint issues relating to access constituted 7.1% (n=58) of total mental health complaint issues in 2016/17. As presented in Figure 62, inadequate resources/lack of service issues accounted for nearly half of these issues, with 3.3% of mental health issues (n=27) being reported due to perceived lack of service, inadequate health care professional resource, inadequate equipment, or inadequate facilities. Delays in admission or treatment, particularly when a client is already at the point of service delivery, accounted for 1.8% of mental health issues (n=15).

Figure 62: Frequency and Percentage of Mental Health Complaint Issues Relating to Access (2016/17)



Percentages relate to total mental health complaint issues.

Key Messages for Mental Health Complaints

Mental health consumers are a vulnerable group navigating a complex health system. Although the issues reported by this group of consumers were similar in nature to those reported across all HSP, there are some notable differences. The communication issue category failure to listen to consumer/representative/carer/family was ranked higher in mental health complaints, suggesting that this group feels that health care professionals do not consult with consumers in the development of their care plans.

Mental health consumers also showed concern that the treatment they received and their subsequent discharge or transfer was inadequate or inappropriate. While WA health system staff are compassionate and understanding, there were occasions where mental health consumers felt that their concerns and questions could have been better addressed.



WARD 1

BABY LABELS
25G NEEDLES

EQUIPMENT

Current Achievements

Adoption and implementation of initiatives to address and improve patient safety are essential to the transformation of health care delivery. The WA health system continues to foster a strong patient safety ethos that is demonstrated by the following achievements:

1. The provision of exceptional and safe health care as demonstrated by the very low rate reported for the more serious SAC 1 clinical incidents in 2016/17 (2 per 10,000 bed days or 7 per 10,000 separations).
2. As key stakeholders Safety and Quality staff continue to work closely with the Health Services Support CIMS Support team to assist in the ongoing refinement of the web based Datix CIMS and CFM.
3. A successful state-wide project was undertaken to upgrade the Datix CIMS and CFM from version 12 to version 14. This resulted in the:
 - Consolidation of the Datix technical environments to ensure consistency and better management by resolving disk space issues and incorrect server specifications.
 - Automated software installations.
 - Enhanced reporting functionality.
4. Four PSSU CIM and Complaints Quarterly Reports have been produced in the last 12 months. These reports provide WA health system staff with a state-wide account of clinical incident data in a timelier manner and help facilitate system learnings from a whole of WA health system perspective.
5. Developed to complement the CIM and Complaints Quarterly Reports are the Clinical Incident Check Up Reports. These reports focus on specific types of clinical incidents to provide WA health system staff with a snapshot of clinical incidents and the types of clinical actions that can be implemented to address the underlying causes.
In 2016/17, the following state-wide Clinical Incident Check Up Reports have been released addressing:
 - Safe infant sleeping
 - Patient identification
 - Open disclosure
 - Mental health missing persons.
6. Four focus reports³⁰ were developed for internal review purposes for the following issues:
 - Clinical incidents related to recognising and responding to clinical deterioration.
 - SAC 1 emergency obstetric and perinatal clinical incidents resulting in mortality or serious morbidity from 1 January 2015 to 30 June 2016.
 - The unexpected death of a mental health client from 1 July 2015 to 30 June 2016.
 - Review of grievance complaints received from 1 July to 31 December 2016.
7. Participation in ongoing Commonwealth initiatives regarding pricing and funding for safety and quality including the development of an approach to implement penalties associated with sentinel events from 1 July 2017, and commenting on proposals for penalties associated with HACs and avoidable hospital readmissions.
8. Participation in the review of the national sentinel events list being led by the ACSQHC.
9. The Coronial Liaison Unit continues to provide 6-monthly “Progress Report for Health Related Coronial Recommendations” to the State Coroner, detailing actions taken across the WA health system in response to coronial recommendations. The PSSU supports the sharing of lessons learned and quality improvement initiatives across the health system, and continues to publish the executive summary of this report on the Safety and Quality intranet site (available at: <http://intranet.health.wa.gov.au/osqh/reports/>).
10. In 2016/17 the Coronial Review Committee members discussed 22 inquest findings with 8 health-related recommendations. The Committee, established in 2014, continues to

³⁰ Focus reports are only available to WA health system staff.

review all coronial inquest findings with health care issues, including those which may not have resulted in recommendations, but which still provide opportunities to review current systems and processes.

11. *From Death We Learn 2015 (2016 Edition)*³¹ was released in November 2016. This annual publication reviews the coronial inquests that have taken place and provides key messages, recommendations and actions taken by the WA health system to address concerns. This publication also includes discussion points to promote conversation about key issues and raise awareness of existing strategies to address them.
12. A request was received from Elsevier Australia Publishers asking permission for a listing on clinical incidents, taken from the CIM Policy 2015, to be used in a university nursing text titled: Tabbner's Nursing Care: Theory and Practice 7e. The text has since been published internationally and references the Department of Health, Western Australia (2015). Clinical Incident Management Policy, Perth: Patient Safety Surveillance Unit.



³¹ From Death We Learn (2015) available at: <http://www2.health.wa.gov.au/Reports-and-publications/From-Death-We-Learn>

Future Focus

The WA health system continues in its transition of the new governance structure established under the *Health Services Act* (2016). Specifically, this legislation confirms the DOH as System Manager and creates HSP as statutory authorities with legal accountabilities responsible to their HSP Boards. In this new environment each HSP Board has established Safety and Quality subcommittees to assist the Board in their governance of patient safety and quality health care delivery. Safety and quality remains a high priority domain which reinforces the importance of clinical governance across the WA health system.

In light of this new era of devolved governance, the DOH engaged internationally renowned Professor Hugo Mascie-Taylor to undertake a comprehensive and robust review of safety and quality in the WA health system. This review was to ensure that health care delivery across WA continues to strengthen and improve especially during this time of system change.

The recommendations from this review are being implemented to strengthen current patient safety practices, reduce avoidable harm to our patients and enable staff to work within an environment that enables them to deliver high quality healthcare. Targeted areas for improvement include:

- Strengthening governance structures to enhance clinical leadership and thereby provide appropriate safety and quality assurances across the system.
- Enhancing and standardising system-wide policies and practices to improve patient safety with the requirement that all health professionals are to participate in clinical audit and clinical risk management. Plus the subsequent publishing of safety and quality performance information to allow for greater transparency.
- Providing system oversight and assurances that are purposeful, consistent and robust to provide evidence on the safety and quality status of the health system. This includes a clear process for the management of clinical performance concerns.
- Setting system wide strategic priorities to progress safety and quality practice such as the reporting and investigation and monitoring of clinical incidents and consumer complaints.

The Director General has provided executive leadership with the comprehensive examination of the safety and quality of health care delivery across the WA health system. This pro-active approach will assist our transition to devolved governance by ensuring that safe and efficacious health care continues to be delivered.

While these state-wide recommendations are being implemented, HSP need to focus on a major area of CIM, which is the development of recommendations that are clear, concise and measurable. Recommendations are a critical component to ensuring that SAC 1 clinical incidents are prevented or minimised. A Recommendation/ Action Hierarchy developed by the Veterans Affairs National Center for Patient Safety to assist in the development of actions that are more likely to succeed, has been adopted by WA health care providers³². The Recommendations/Actions Hierarchy is a valuable tool that can assist staff in identifying and creating stronger recommendations/actions to ensure effective system change.

Using the principles of human factors, stronger recommendations/actions focus on modifying human behaviour to limit or prevent clinical incidents from occurring. For example, eliminating the use of universal adaptors and peripheral devices for medical equipment ensures that staff have access to intravenous tubing that can only be connected in the correct way.

³² Action Hierarchy levels and categories are based on Root Cause Analysis Tools, VA National Center for Patient Safety, http://www.patientsafety.va.gov/docs/joe/rca_tools_2_15.pdf (2015).

While not all recommendations can be “strong” they need to be effective in making a change and sustaining that change. This is why quality improvement is an ongoing cycle so that weaker recommendations such as educating staff on e.g. medication incidents can be implemented but also continually evaluated and further strategies implemented until improvement is embedded.

Furthermore, clinical risk management is an integral part of ensuring improvements to patient safety are identified, implemented and maintained. The ongoing process for judging risks, understanding the factors that lead to them, learning lessons from incidents and putting systems in place to prevent recurrence is outlined in the WA Health Clinical Risk Management Guidelines³³. An integrated approach to risk management is critical for the success of a good clinical governance system. This has been stressed during the procurement of a replacement enterprise risk management system, following the decommissioning of RiskBase. Opportunities for developing maturity in our risk management approach could be realised during the implementation of the new risk management system in the 2017-18 year.

During 2016-17 the ACSQHC has been conducting a review of the national sentinel event list that was first endorsed by Australian health ministers in 2002. It has been recognised that some of the events on the list are no longer considered to be wholly preventable, and that across Australian jurisdictions there is variability in the adoption and application of the existing event descriptions. This work should see a more contemporary list of serious but preventable sentinel events endorsed by health ministers during 2017-18.

Having a relationship to the sentinel event review, the Independent Hospital Pricing Authority (IHPA) has been progressing national work on developing and implementing approaches to pricing and funding for safety and quality in Australian public hospitals. This work is intended to improve health outcomes by implementing pricing and funding reforms in three areas:

- Sentinel events – from 1 July 2017 pricing and funding penalties for entire episodes of care that include a sentinel event will be introduced. The existing national list of sentinel events will be used in the first instance, and IHPA will have regard to the ACSQHC’s review of sentinel events.
- Hospital acquired complications – reduced funding levels will apply to defined hospital acquired complications from 1 July 2018, subject to the results of a shadow year in 2017-18 and further public consultation.
- Avoidable hospital readmissions - further public consultation will be undertaken to inform a future pricing and funding approach to avoidable hospital readmissions, based on a set of definitions to be developed by the ACSQHC.

With the introduction of these pricing reforms the WA health system will need to remain vigilant to ensure that these do not create a disincentive to notifying clinical incidents, which may result in potential opportunities for improvement in health care services being lost.

Patient safety data is an important mechanism in providing evidence of both the harm that is sometimes caused whilst delivering care but also of the effectiveness of quality improvements. It is therefore imperative that the data used to measure improvements are robust and exact. This attention to data quality ensures that reliable health care data is used to drive patient safety and ensure that every patient is given safe and efficacious care.

³³ WA Health Clinical Risk Management Guidelines – A best practice guide, WA Department of Health, <http://www2.health.wa.gov.au/~media/Files/Corporate/general%20documents/Quality/PDF/WA%20Health%20Clinical%20Risk%20Management%20Guidelines.pdf> (2016)

Appendix One: SAC 1 Clinical Incident Notification List

Clinical incidents that must be reported as SAC 1 (includes 8 national sentinel event categories)

Severity Assessment Code 1 Categories (National Sentinel Events)	
1	Procedures involving the wrong patient or body part resulting in death or major permanent loss of function.
2	Suicide of an inpatient (including patients on leave) Mental Health Services are required to report to the Chief Psychiatrist and to the State Coroner (for involuntary patients) episodes of unexpected death.
3	Retained instruments or other material after surgery requiring re-operation or further surgical procedure Retention of a foreign object in a patient after surgery or other procedure including surgical instruments or other material such as gauze packs inadvertently left inside the patient when the surgical incision is closed - excluding objects intentionally implanted as part of a planned intervention and objects present prior to surgery that are intentionally retained.
4	Intravascular gas embolism resulting in death or neurological damage Death or serious disability associated with intravascular gas embolism that occurs while the patient is being cared for in a facility - excluding deaths associated with neurosurgical procedures known to present a high risk of intravascular gas embolism.
5	Haemolytic blood transfusion reaction resulting from ABO incompatibility
6	Medication error resulting in death of a patient. Death or serious injury associated with a medication error, including, but not limited to errors involving: <ul style="list-style-type: none">• the wrong drug• a contaminated drug• the wrong dose• the wrong patient• the wrong time• the wrong rate• the wrong preparation• the wrong route of administration• insufficient surveillance (e.g. blood tests, clinical observation).
7	Maternal death associated with pregnancy, birth and the puerperium. This includes the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.
8	Infant discharged to wrong family or infant abduction

Severity Assessment Code 1 Categories (Other)

SAC 1 includes all clinical incidents/near misses where serious harm or death is/could be specifically caused by health care rather than the patient's underlying condition. Note, this list is NOT EXHAUSTIVE.

Medication error (not resulting in death) includes:

The inappropriate administration of daily oral methotrexate*

The intravenous administration of epidural medication*

Wrong gas being administered.*

Fetal complications associated with health care delivery:

Unrelated to congenital abnormality in an infant having a birth weight greater than 2500 grams causing death, or serious and/or ongoing perinatal morbidity.

Complications not anticipated yet arose and were not managed in an appropriate/timely manner resulting in death, serious and/or ongoing morbidity.

Delivery at a site other than where labour commences which requires transfer to another facility for a higher level of care resulting in death, or serious and/or ongoing morbidity.

Misdiagnosis and subsequent management (refers to physical and mental health)

Failure to monitor and respond to oxygen saturation*

Delay in recognising/responding to physical clinical deterioration

Complications of resuscitation:

Events in which staff experienced problems in managing an emergency situation or resuscitation resulting in death, or serious and/or ongoing morbidity.

Failed resuscitation where resuscitation guidelines could not be followed due to a deficiency of equipment, communication, or staffing resulting in death, or serious and/or ongoing morbidity.

Complications of anaesthetic management:

Unintended intra-operative awareness.

Anaesthetic events resulting in death, or serious and/or ongoing morbidity.

Complications of surgery:

Wrong site surgery not resulting in death or major permanent loss of function*

Pulmonary embolism

Injury to major blood vessels.

Complications of an inpatient fall.

Hospital process issues:

Events in which hospital processes such as triaging, assessment, planning or delivery of care e.g. miscommunication of test results, response to abnormal test results contributed to death, or serious and/or ongoing morbidity, Information technology incidents.

Transport or transfer – Events in which delays in transport or transfer contributed to death, or serious and/or ongoing morbidity.

Misidentification of patients.*

Infection control breach (e.g. IV cannula related bacteraemia infections).

The unexpected death of a mental health client (e.g. suspected suicide, unnatural/violent death).

Mental health clinical deterioration resulting in serious harm

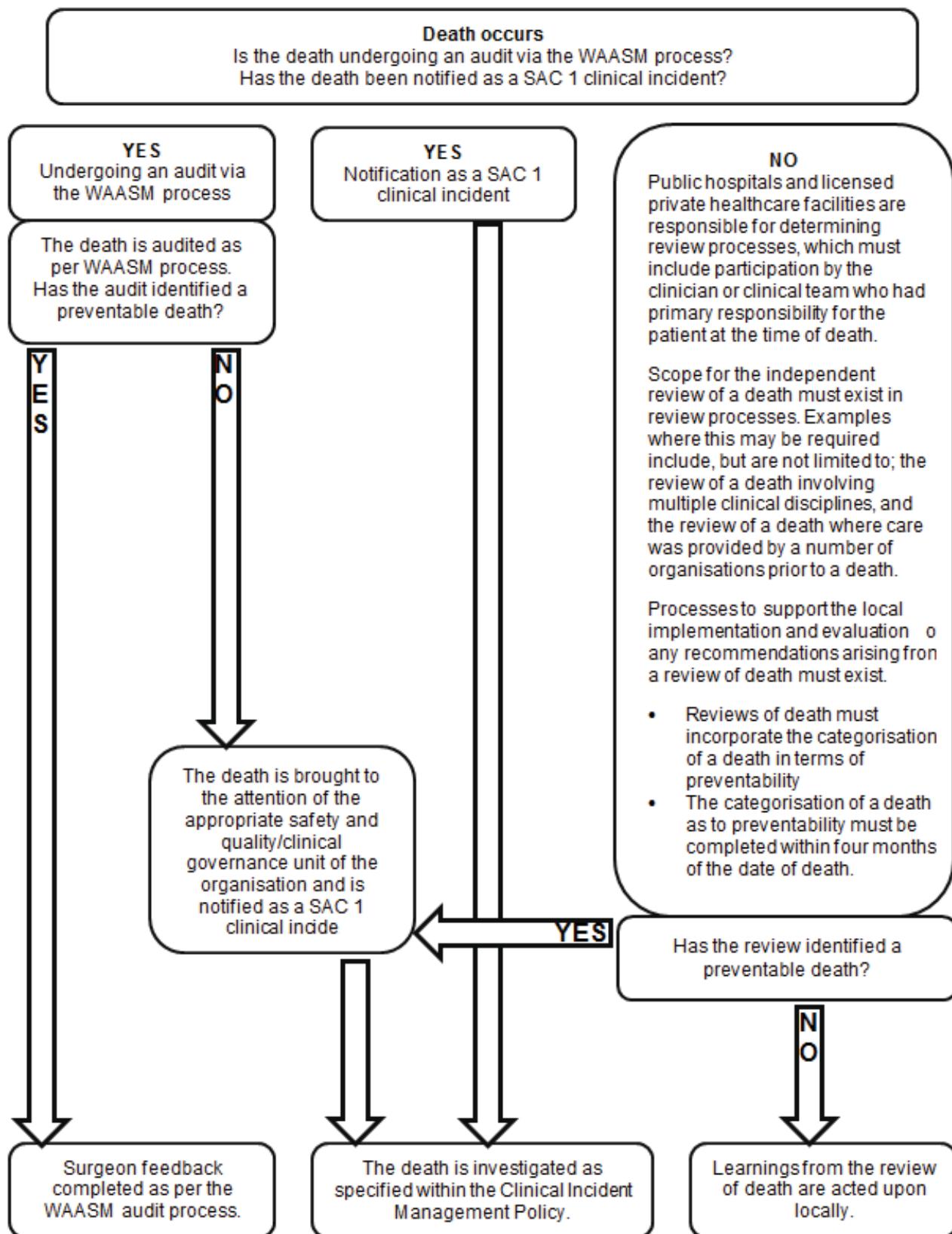
Missing or absent without leave of any high risk mental health patient/consumer.♦

Patient missing or absent without leave with adverse outcome

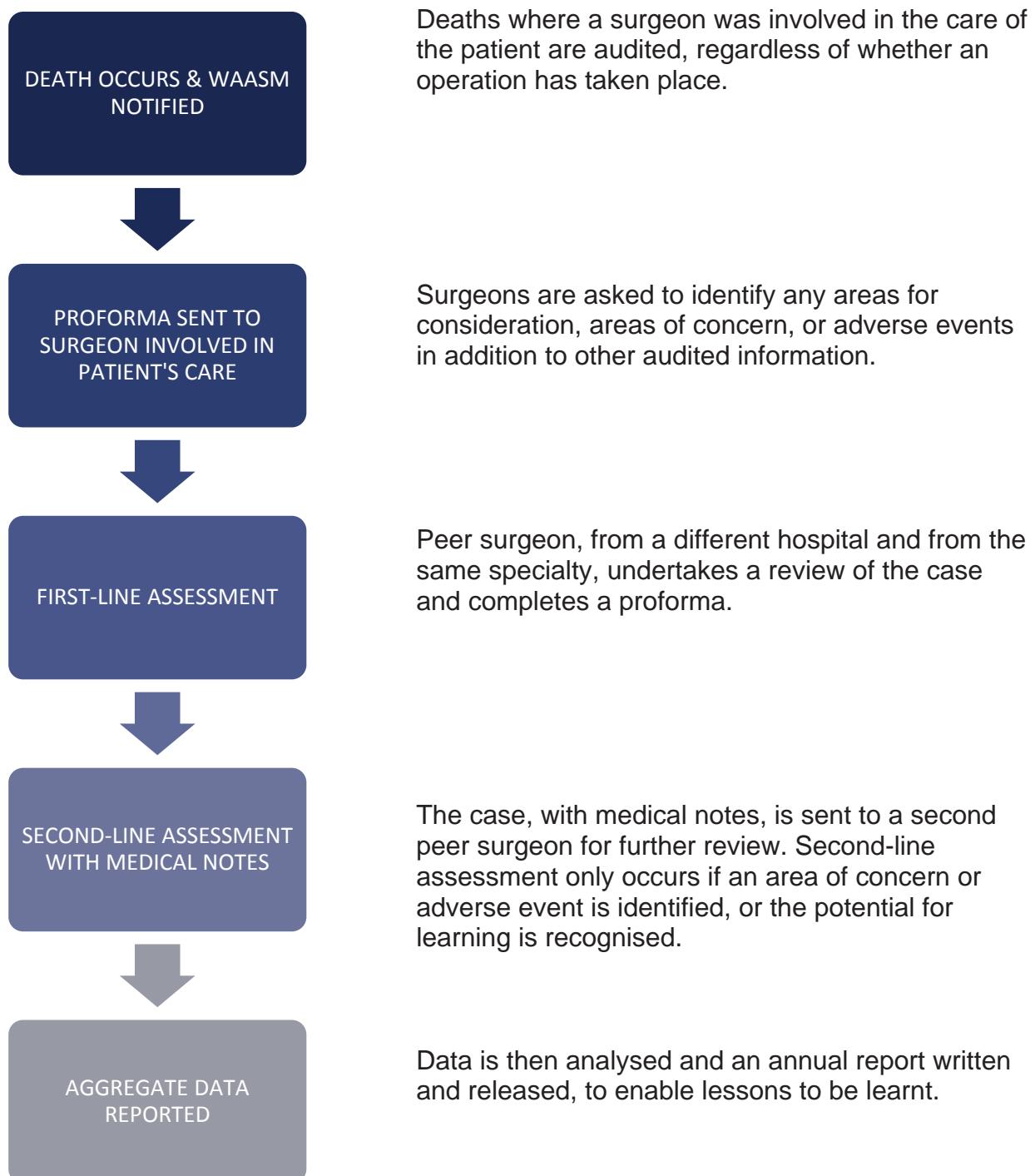
Wrong route administration of oral/enteral treatment*

This SAC 1 notification list is not exhaustive and if unsure of whether to notify an incident, please contact your line manager or local risk manager/Safety Quality and Performance team or the PSSU for advice.*Never Events refer to serious, preventable patient safety incidents that should not occur if preventative measures are in place. ♦High risk mental health patients include those detained under the *Mental Health Act (1996 or 2014)* and voluntary patients at high risk of causing significant harm to themselves or others, or being harmed by others. The assessment of a mental health patient as high risk is based on the patient's medical condition and is determined using clinical judgement. For example, if a mental health patient who is deemed at high risk of suicide leaves hospital, this would be notified as a SAC 1 clinical incident. Further information can be found in the *Policy for Mandatory Reporting of Notifiable Incidents to the Chief Psychiatrist* available at: <http://www.health.wa.gov.au/CircularsNew/attachments/1012.pdf>

Appendix Two: The Review of Death Policy with CIM and WAASM Processes



Appendix Three: Western Australian Audit of Surgical Mortality (WAASM) Process



Data Quality Statement for this Report

Quality Dimensions

Institutional Environment	Clinical Incident data are obtained from across WA health system hospitals and health care providers. It is mandatory to report all SAC 1 and SAC 2 clinical incidents. SAC 1 clinical incidents are also received from all WA licensed private hospitals and contracted non-government agencies. The PSSU undertakes all data analysis presented within this report unless otherwise stated. Hospital separation and bed day data, hospital complications data are extracted from the Hospital Morbidity Data Collection and are provided by Data Integrity Management. Consumer feedback data are obtained from WA health system hospitals including complaints from public patients in public-private partnership hospitals. It is mandatory for public hospitals, and private hospitals providing health care to public patients, to report complaints data in accordance with Complaints Policy. The WAASM data are obtained from the Royal Australasian College of Surgeons. The PEHS survey is conducted by Edith Cowan University via Computer assisted Telephone Interviews (CATI) as contracted by the DOH Health Survey Unit, Epidemiology Branch.
Relevance	The purpose of the clinical incident data is to report all state-wide clinical incidents notified within the 2016/17 period. SAC 1 incidents include data from the WA health system which includes hospitals and community health care providers plus data from licensed private hospitals and contracted non-government services. Rates calculations include inpatient clinical incidents only (unless otherwise specified) with the denominator including separation/beddays data from WA health system hospitals' inpatient activity data. Mental health clinical incidents rates include mental health incidents notified in the community with non-admitted mental health occasions of service data used as the denominator. The web based CIMS has improved rates analysis by providing more specific location information. The purpose of the Consumer Feedback data is to report all complaints and other consumer feedback received by the WA health system to the Datix CFM database, as well as complaints data reported to PSSU by public-private partnership hospitals within the 2016/17 period. Complaints inform about patient centred care and are an integral component of CIM. WAASM data includes deaths that occurred under the care of a surgeon, whether a procedure occurred or not. The WAASM follows a peer review model of audit and can identify areas of concern for the care of a surgical patient. The PEHS survey is administered to gauge patient satisfaction with the WA health system. Questions asked in the PEHS survey are dependent on hospital size and length of stay. Percentages reported from the PEHS are representative of the sample size for each question asked. Frequencies are omitted from this report to avoid confusion due to variable denominators.
Timeliness	The reference period for this data is 1 July 2016 to 30 June 2017. Due to data coding delays there is a two to three month lag time with regard to some Datix CIMS data such as confirmed SAC data and also to the HMDC data. As such data frequencies may change over time and prohibits comparisons with previous reports. WAASM data includes cases that had completed the review process by the census date of 31 March 2017. WAASM data includes cases where the death occurred over the period 1 January 2006 to 31 December 2016. Coronial inquest summaries include all health-related inquest findings released between 1 July 2016 and 30 June 2017. The status of coronial recommendations is current as at the most recent <i>Progress Report for Health Related Coronial Recommendations</i> (August 2017).

Accuracy	<p>Data are entered into the Datix CIMS and CFM databases on a routine basis by WA health system staff at each facility. Datix CIMS data are entered in real time by the notifier. All data entered undergo data validation processes both at a local and state-wide level. This is to ensure the data are clean and free from duplicates. Missing data are identified and rounding errors of + or – 1 are deemed acceptable.</p> <p>WAASM data are reported in accordance with that reported to PSSU by the Royal Australasian College of Surgeons.</p> <p>Data from PEHS are reported in accordance with the data provided to PSSU from the Health Survey Unit, Epidemiology Branch. The Health Survey Unit reports that reliability testing was conducted to test the questions used in the interview and the CATI methodology. Data is self-reported and is checked by the Health Survey Unit for valid values, logical consistency and historical consistency.</p>
Coherence	The CIMS and CFM data are dynamic and data lag times for some CIMS and CFM variables exist which can prohibit the comparison of data at different times.
Accessibility	<p>The data are only accessible to WA health system employees who have been granted permission to access the Datix CIMS and/or CFM databases. The PSSU does allow access to de-identified CIMS data by external parties whose research proposal has been approved by PSSU and who have obtained DOH ethics approval. All requests for HMDC data require extraction and approval from Data Integrity Management.</p> <p>The WAASM data is protected under the Commonwealth's <i>Health Insurance Act 1973</i>. The release of aggregate data is subject to the authorisation of the Royal Australasian College of Surgeons.</p> <p>Data from PEHS were requested from the Health Survey Unit, Epidemiology Branch. Reports on the survey results for each hospital, health region and the State are provided by the Health Survey Unit to key WA health system employees for further disseminations as required.</p>
Interpretability	Any queries with regard to data found in this report can be directed to the Patient Safety Surveillance Unit, DOH.

Glossary

Bed days – the number of days a patient stays in hospital between admission and discharge. An aggregate measure of health service utilisation.

Clinical incident – an event or circumstance resulting from health care which could have, or did lead to unintended and/or unnecessary harm to a person. Clinical incidents include:

- **Near miss** which is an incident that may have, but did not cause harm, either by chance or through timely intervention.
- **Adverse event** which is an injury/harm caused by medical management or complication thereof, instead of the underlying disease. It results in an increase in the level of care and/or prolonged hospitalisation and/or disability at the time of discharge. Medical management refers to management under health care services.
- **Sentinel event** which refers to unexpected occurrences involving death or serious physical or psychological injury, or risk thereof.¹²

Clinical Incident Management (CIM) – the process of effectively managing clinical incidents with a view to minimising preventable harm.¹²

Clinical Incident Management System (CIMS) – a database system developed for collecting and analysing information on clinical incidents. It covers voluntary reporting, investigating, analysing and monitoring of clinical incidents.

Contact – consumer feedback regarding a minor aspect of service where the individual is seeking information or assistance, or does not wish to lodge a formal complaint, or is satisfied that the feedback has been adequately addressed at the point of contact, negating the need for any follow up actions.

Contributory factor – a circumstance, action or influence which is thought to have played a part in the origin or development of an incident or to increase the risk of an incident.³⁴

Declassification – is the process by which a clinical incident can be made inactive following the comprehensive and systematic investigation of a notified SAC 1 clinical incident. This can only be done if no causative factors contributed to the patient's/consumer's outcome and in fact the clinical incident was not preventable.¹²

Embolism – a plug that occludes a vessel. Could be composed of a thrombus, vegetation, mass of bacteria or some other foreign body.³⁵

Hydrocephalus – a condition marked by an excessive accumulation of cerebrospinal fluid resulting in dilation of the cerebral ventricles and raised intracranial pressure.³⁵

Hydronephrosis – dilation of the pelvis and calices of one or both kidneys.³⁵

³⁴ World Health Organisation. Conceptual Framework for the International Classification for Patient Safety Technical Report. Version 1.1. January 2009.

³⁵ Stedman's Medical Dictionary. 27 ed. Baltimore: Lippincott Williams & Wilkins: 2000.

Hypertension – high blood pressure; transitory or sustained elevation of systemic arterial blood pressure to a level likely to induce cardiovascular damage or other adverse consequences.³⁵

Injury – in the context of CIM includes burns, injury due to an impact or collision, pressure injuries, injury of unknown origin, unintended injury during a procedure or treatment, or other injuries not classifiable in the previous categories.

Mental Health Patient – refers to any involuntary or voluntary mental health patient as well as any referred mental health patient.

Never Events – Serious, preventable patient safety incidents that should not occur if preventative measures are in place.¹²

Sentinel event – refers to unexpected occurrences involving death or serious physical or psychological injury, or risk thereof. There are eight nationally endorsed sentinel event categories, endorsed by Australian Health Ministers (see Appendix 1 for a list of the eight sentinel events).¹²

Separation – A patient is separated at the time the hospital records the cessation of treatment and/or care and/or accommodation of a patient. Separation is synonymous with discharge.³⁶

Septicaemia – systemic disease caused by the spread of micro-organisms and their toxins within the blood.³⁵

Severity Assessment Code (SAC) – is the assessment of actual or potential consequences associated with a clinical incident. The SAC rating (1, 2 or 3) is used to determine the appropriate level of analysis, action and escalation.

- SAC 1 includes all clinical incidents/near misses where serious harm or death is/could be specifically caused by health care rather than the patient's underlying condition or illness. In WA, SAC 1 also includes the eight nationally endorsed sentinel event categories.
- SAC 2 includes all clinical incidents/near misses where moderate harm is/could be specifically caused by health care rather than the patient's underlying condition or illness.
- SAC 3 includes all clinical incidents/near misses where minimal or no harm is/could be specifically caused by health care rather than the patient's underlying condition or illness.¹²

Venous thromboembolism (VTE) – is the formation of a blood clot usually in a deep vein.³⁵

³⁶ Department of Health WA. Admissions, Readmissions, Discharge and Transfer Reference Manual (2017). Department of Health, Western Australia, editor. Perth. 2017.

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in alternative formats on request for
a person with disability.

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