Auckland District Health Board Summary

1 July 2017 to 30 June 2018

Serious Adverse Events

Auckland DHB has reported 96 adverse events (including 34 falls with serious harm and 10 serious pressure injuries) to the Health Quality and Safety Commission (HQSC) for the year 1 July 2017 to 30 June 2018.

Adverse events identified as serious receive an in-depth review by a team of clinical and clinical quality and safety service staff who are independent from the event. The review reports are assessed by a committee of senior management and senior clinical staff to ensure they are robust and that issues which may need to be addressed at an organisational level are identified. The recommendations from the reports are tracked to ensure that follow-up and implementation occurs.

In this year's report nine out of fourteen events related to the loss of vision due to delays in appointments are included in the annual report numbers but after review it was found that the patients affected experienced either minimal vision loss or temporary deterioration in their sight. We have also included four events that HQSC have not included in their numbers because, although they did not meet criteria for serious harm, we have undertaken detailed reviews of the cases and there was significant learning for the organisation.

The table and report below outlines a summary of events, findings and recommendations related to the events which have occurred. The events have been classified into eight specific themes:

- Delay in escalation of treatment
- Wrong or unnecessary procedure
- Procedural injury
- Medication error
- Delay to/failure in follow up or treatment
- Other clinical events
- Falls
- Pressure injuries

Delay in escalation or treatment

Confirmed description for report	Findings	Recommendations/Actions
Delay in escalation to a higher level of care of a patient with cardiogenic shock.	• Cognitive diagnostic error • Care was not escalated despite a high Early Warning Score (EWS) • Senior medical staff were not involved in the patient's care until the morning after admission • The Patient at Risk team was not formally involved in the patient's care. • The ward was very busy with several patients causing concern.	• Mandatory clinical and EWS criteria to be developed for when the on call Senior Medical Officer is contacted • Inclusion of EWS training in orientation for all clinical staff • Mandatory completion of the available on-line training package for all junior medical staff. • Use of the nursing acuity tool (Trendcare) data be developed to use in 'real time' to match patient need with staff capacity.
Delay to recognising seizure(s) in a neonate resulting in brain injury.	• Cultural factors contributed to communication issues with family • Lack of recognition, documentation and planning of baby's symptoms and follow up of parental concerns	• Culturally & Linguistically Diverse Training Programme to be included in staff training plan • A formal plan for breastfeeding to include a step-wise process to document and communicate or escalate any issues, and to include blood sugar testing when signs of poor feeding occur • Up-skill maternity staff in the identification of abnormal appearance and behaviours associated with neonatal seizures.

Confirmed description for report	Findings	Recommendations/Actions
High risk patient not adequately managed after surgery.	Review in progress	Review in progress
Patient died following failure to escalate to higher level of care.	Review in progress	Review in progress
Delay to emergency surgery potentially contributing to adverse neurological outcome.	Review in progress	Review in progress

Delay to treatment or delay or failure in follow up

Confirmed description for report	Findings	Recommendations/Actions
Delay in assessment on arrival and transferring a patient with end-stage renal failure to inpatient service.	Review in progress	Review in progress
Deterioration and subsequent death of patient while being assessed for haemodialysis	Review in progress	Review in progress

Confirmed description for report	Findings	Recommendations/Actions
Delay in diagnosis of colorectal cancer recurrence.	Review in progress	Review in progress
Delay to recognise and treat hyperglycaemia in a patient with multiple co-existing illnesses contributed to deterioration and subsequent death.	• No process or guideline regarding when blood glucose testing is required on admission or readmission to Reablement wards led to blood glucose not being tested on admission or re-admission to Reablement ward. • Gap between knowledge and practice led to the significance of hyperglycaemia not being recognised and acted upon. • No independent clinical review during a long inpatient stay.	• Develop and implement standardised baseline admission screening bloods • Implement a process for medical peer review of patients with a prolonged stay within Reablement wards. • Medical staff complete online learning module on diagnostic bias. • Presentation of findings and recommendation to staff for reflective practice and learning.
Delay in radiology imaging and reporting follow up and delay in performing additional chest x-ray resulting in delayed diagnosis of left upper lobe cancer.	• X-ray abnormality accepted on the results system by staff but not acted on • Abnormal x-ray results not communicated to the patient and his family during his admission • Delay to follow-up imaging • Lack of a robust handover process and continuity of care when team members are absent.	• Implementation of improved inter-team and intra-team handover processes to cover planned absences • Development of organisation-wide inpatient discharge communication standard (including information on electronic discharge summary provided to GP and to patient). • Development and implementation of integrated patient management system and clinical information systems.

Confirmed description for report	Findings	Recommendations/Actions
Delays in clinical decision making altered treatment options for patient	Review in progress	Review in progress
Delayed detection and treatment of cancer due to delayed interpretation of radiological imaging	Review in progress	Review in progress
Missed opportunities for an earlier diagnosis of a rare form of cancer.	Review in progress	Review in progress
Delay to follow-up of a patient with metastatic lesion	Review in progress	Review in progress
Delayed treatment resulting in deteriorated vision (fourteen events)	Issues leading to delayed follow up are multifactorial including limited capacity for high volume of patients; scheduling and prioritisation processes. Nine events related to the loss of vision due to delays in appointments are included in the annual report numbers but after review it was found that the patients affected experienced either minimal vision loss or temporary deterioration in their sight.	The ophthalmology service at ADHB worked through a significant service improvement programme that included regular reporting to the Ministry of Health. This programme has established a process to ensure there is recognition and management of variance of any patient pathways. This has particularly addressed overdue follow ups. Whilst capacity demand pressures remain, this process enables and encourages early escalation of clinical concerns.

Confirmed description for report	Findings	Recommendations/Actions
Delay in surgery led to deterioration in vision	Review in progress	Review in progress

Medication incident

Confirmed description for report	Findings	Recommendations/Actions
A service user died as a result of complications associated with a medication.	Review in progress	Review in progress
Unwanted pregnancy following incorrect contraceptive advice given to a patient.	• Lack of standardised documentation in the consent form and operation notes • Fragmented care during patient admission • Lack of clear process to support preparation of the discharge summary. • Lack of process to document contraceptive devices/implants used. • Patient not optimally involved in their own care	• Implement a template-based electronic discharge process which outlines plan for patient and the patient's GP or other healthcare providers to follow • Revise paperwork to implement a clear process to document the name and identifying details of contraceptive device or any other product used for future reference
Patient found unresponsive after admission for overdose.	Review in progress	Review in progress
Medication administered to a patient with a known risk resulting in prolonged intensive care unit admission.	Review in progress	Review in progress

Procedural Injury

Confirmed description for report	Findings	Recommendations/Actions
Retained vaginal pack removed one day after discharge by visiting midwife.	• Instructions on removal of pack not readily available to staff discharging patient • Previous recommendation from similar case not implemented	• Ensure post op notes available within 24 hours of dictation • Expedite implementation of new process to track temporarily retained vaginal packs and other foreign objects • Practice surrounding packing to be reviewed - if two or more packs are used these are tied together
Peripheral intravenous catheter-related infection causing death	• Patients frequently have peripheral intravenous catheters (PIVC) inserted at the time of blood testing to spare them having a second needle stick later should a PIVC subsequently be needed. • PIVCs are left in place when no longer needed. • Staff did not fully appreciate that the risk of infection related to PIVCs is proportional to the time they are in place. • There were no clear guidelines for staff about the process to undertake when a patient with a PIVC in place is going on overnight leave. • The patient was not given written advice about the PIVC site prior to discharge • The patient was admitted for appointments and procedures which could have been completed without admission to hospital. • There was no routine credentialing for some groups of health care workers who routinely insert PIVCs in the DHB.	• Insertion of a PIVC should only occur when a PIVC is clinically indicated. • The practice of admitting out-of-area patients who need tertiary-level outpatient review and outpatient tests performed should cease after a viable alternative process has been developed. • Patients to be given specific, written advice at the time of discharge as to what they should do if the PIVC site looks infected or becomes painful, or they develop symptoms such as malaise or fever. • ADHB will ensure that House Officers and Trainee Interns are adequately credentialed to insert PIVCs and that this practice is aligned with the PIVC insertion training that nurses and phlebotomists undertake.

Confirmed description for report	Findings	Recommendations/Actions
Vascular injury requiring further intervention during surgery.	Review in progress	Review in progress
Incorrect lesion excised resulting in repeat biopsy and further surgery.	Review in progress	Review in progress
Unrecognised placement of breathing tube into the oesophagus with subsequent lack of oxygen and injury to the brain.	Incorrect placement of breathing tube was not recognised as a carbon dioxide detector device (continuous capnography) was not used to confirm correct placement.	• Development of checklist and auditing tool • Update policy to include checklist • Implement continuous capnography as a mandatory intubation practice. • Provide simulation exercises on insertion of neonatal breathing tubes (intubation) for multidisciplinary team
Cardiac arrest related to inappropriate temporary pacing post cardiac surgery	• Pacing was not required for this patient after the operation in the ICU. • After transfer to the ward the temporary pacemaker was set in a backup mode rather than being turned off. This enabled an abnormal heart rhythm causing cardiac arrest.	• Revise the guideline Pacemaker – Temporary Epicardial - Post Cardiac Surgery and associated educational programme and ensure all nursing and medical staff are notified of changes. • Revise the current educational programme to reflect the changes in practice outlined • Explore the formalisation of an escalation process for pacing concerns that includes cardiac physiology as a key resource/support • Audit appropriateness of patients leaving CVICU / CCU with pacing wires
Cardiac arrest related to inappropriate temporary pacing post cardiac surgery	• It was not clear if a temporary pacemaker check was undertaken when the pacing settings were changed in association with the patient's heart rhythm changing.	• Revise the guideline Pacemaker – Temporary Epicardial - Post Cardiac Surgery and associated educational programme and ensure all nursing and medical staff are

Confirmed description for report	Findings	Recommendations/Actions
	• This resulted in ventricular under-sensing causing ventricular fibrillation and cardiac arrest.	notified of changes. • Revise the current educational programme to reflect the changes in practice outlined • Explore the formalisation of an escalation process for pacing concerns that includes cardiac physiology as a key resource/support • Audit appropriateness of patients leaving CVICU / CCU with pacing wires
Unintended puncture of aorta during insertion of permanent pacemaker.	Review in progress	Review in progress
Retained vaginal pack following treatment for post-partum haemorrhage.	• Instructions on removal of pack not readily available to staff discharging patient • New process to track temporarily retained vaginal packs and other foreign objects was not utilised.	• Ensure complete implementation of clinical form to document removal of packs. • Undertake monthly audits of new process.
Retained swab in post-surgical patient.	Review in progress	Review in progress
Retained swab in abdomen following vascular surgery requiring further operation.	Review in progress	Review in progress
Foreign body retained post-surgery.	Review in progress	Review in progress

Injection into eye resulted in eye infection with permanent damage to vision.	• The service investigated a cluster of infections after the report of harm to a patient. • The review showed no system or process issues. • The cluster did not fall outside the expected range of infections. • The cause for the infections could not be determined. • Some areas for improvement were identified.	• Improvements to be made to injection techniques with respect to enhancing sterile technique • Development of an endophthalmitis protocol • Commencement of ongoing audit of any further endophthalmitis cases • Yearly audit of injection technique

Wrong or unnecessary procedure

Confirmed description for report	Findings	Recommendations/Actions
Near miss blood transfusion incident with no harm to patient.	Review in progress	Review in progress

Other clinical events

Confirmed description for report	Findings	Recommendations/Actions
Unexpected death after transfer from intensive care to ward.	Review in progress	Review in progress
Patient with rare condition has heart attack and subsequently died.	Review in progress	Review in progress

Confirmed description for report	Findings	Recommendations/Actions
Several complications after brain surgery resulted in death	Review in progress	Review in progress
Injury inflicted by one patient to another resulting in fracture	Review in progress	Review in progress
Patient made decision to decline further dialysis and subsequently died.	No process issues identified	No process issues identified

Patient falls

Any patient who dies, or sustains a serious head injury, fracture, or laceration requiring suturing from a fall while in hospital or attending a clinic is considered to have had a fall with serious harm at Auckland District Health Board.

In 2017- 2018 thirty-four patients had falls with serious harm which was the same as occurred in 2016 – 2017 and compared with 42 in 2015-2016. Two patients died following falls and are included in the table above.

ADHB has a reporting system for patient injuries, but does not rely solely on clinical areas self-reporting serious harm falls. We triangulate these reports with a coding query and we identify serious harm falls that would otherwise have been missed. We believe that such accuracy and transparency is necessary if ADHB is to learn from adverse events.

For each serious harm fall, a multidisciplinary team investigates and reports on their findings to a sub-committee of the Adverse Events Review Committee. A draft new approach to these investigations was adopted last year. This approach uses a large set of questions to highlight contributing factors for the investigating team when they write their report. As we accumulate these new reports, the answers to the large number of questions for each event will become the data for a network analysis to identify future targets for improvement work at ADHB.

In previous years reports we outlined the work of the CONCEPT Ward, an initiative to test-bed improvements in a ward that had a number of serious harm falls. The initiatives developed in the CONCEPT Ward have since been integrated into ADHB's Accelerated Releasing Time to Care programme. This adaptation has been rolled out to 24 out of 44 adult areas. Many of the wards have re-visited this module and have developed specific areas on the wards to highlight the importance of falls prevention and to share latest information, tools and results.

We have also been working to revise the way in which we assess and plan care for patients regarding falls. We are developing a tool to use the Health Quality & Safety Commission's Ask, Assess, Act strategy. This approach will mean a move to assessing patients' needs, rather than risk, and planning to address their individual needs. We have been challenged with the implementation of this new tool but have maintained a learning mindset to respond to feedback from staff on what is and what isn't working. There is an engaged clinical team working alongside staff to develop the tool work best for our patients.

Pressure injuries

Auckland District Health Board has had a sustained focus on reducing hospital-acquired pressure injuries since 2011. Pressure injuries result from unrelieved pressure or shearing forces, often over bony prominences. They are also called pressure sores, bed sores, and pressure ulcers. A pressure injury can range from Stage 1 (reddened skin) to Stage 2 (blistered skin or partial thickness skin loss) to more serious pressure injuries are those that are complete breaks in the skin that expose underlying tissues (Stage 3) or deeper structures such as tendons or bone (Stage 4).

Serious harm pressure injuries are undesirable events that increase patient discomfort, length of stay, and treatment. Mostly, pressure injuries are avoidable, although sometimes patients can be so unwell that pressure injuries occur despite preventive efforts.

We identify patients with such harm through our safety management and reporting system and a coding query we run each month. Ten patients developed serious harm pressure injuries in 2017-2018 while in an Auckland DHB facility compared to 15 the previous year.

Critically ill cardiac patients are especially vulnerable to pressure injuries. Three patients in the adult cardiovascular services developed serious pressure in the 2016-2017 year injuries despite staff efforts at prevention. In response, the intensive care unit has developed a bundle of care specific to their patients to be used in conjunction with the current organisation–wide care plan. The unit bundle has adaptations for equipment–related injuries and those patients unable to be moved due to severe instability and low blood flow. Since these changes, there were no serious pressure injuries reported in the adult intensive care units in the 2017-2018 year.

In Starship Child Health, the on-going programme of work focused on pressure injury prevention and management has resulted in the upgrading of all cot mattresses to high specification foam mattresses and the purchase of an advanced pressure reducing mattress for use with high risk children who weigh less than 25 kg (adult pressure reducing mattresses are not suitable for this patient group).

In 2017-2018 there has been sustained progress in reducing serious harm pressure injuries related to mobility. In part, due to consistent risk assessment, increased awareness, and timely identification and management of Grade 1 and 2 pressure injuries, reducing the opportunity for progression to a more serious grade. However, there have been four serious harm pressure injuries associated with complex casts, such as hip spica, over this time in Starship Child Health. The cast can prevent family and healthcare professionals from noticing the presence of a pressure injury until there is serious tissue damage. This can be compounded by the inability of non-verbal children to communicate their concerns.

The paediatric orthopaedic service is finalising a proposal for ACC funding which will enable them to fully explore, plan and embed into everyday practice, a range of activities to improve the care for children at high risk of pressure injury associated with a cast across the continuum of care in inpatient, community and outpatient services. This work will begin in the New Year.

A CONCEPT Ward in the adult services, similar to the process for falls, was established to test pressure injury prevention initiatives. They have identified a suitable heel offloading device and a pressure injury alert to better identify when patients have a problem. Alongside the new approach to falls assessment the concept ward also designed an assessment and care planning processes to incorporate into an accelerated releasing time to care module. This approach will incorporate a similar approach to the Falls work by using the Health Quality & Safety Commission's acronym Ask, Assess, Act, to assess patient need and plan their care. This new module will begin roll out in the New Year.