Auckland District Health Board Summary
1 July 2014 to 30 June 2015
Serious Adverse Events

There were 98 serious adverse events (including 57 falls with serious harm and 12 serious pressure injuries) reported by ADHB in the July 2014 to June 2015 year.

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

The table and report below outlines a summary of events, findings and recommendations of 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/failure in follow up or treatment
- Other clinical events
- Falls
- Hospital Acquired Pressure injury

Delay in escalation of treatment

Description of Event	Review Findings	Recommendations/Actions
Patient undergoing cardiac monitoring after procedure removed monitoring. Found deceased.	Review in progress	Review in progress
Delay in baby's birth following signs of deterioration during labour increased risk of brain damage.	Abnormal cardiotocograph (CTG) during labour was not initially recognised. Blood test (lactate) was not considered to confirm the status of the baby. Urgency of delivery was not escalated after further evidence of deterioration	Compulsory regular education sessions for all practitioners interpreting CTGs. Revise policy to require standardised documentation of CTG, second person to review CTG every 2 hours, lactate test if CTG abnormal Clearer standards for communication between practitioners

Wrong or unnecessary procedure

Description of Event	Review Findings	Recommendations/Actions
Patient suffered cardiac arrest two days after removal of temporary pacing wires and prior to planned insertion of permanent pacemaker.	Review in progress	Review in progress
Significant reduction in renal function after incorrect removal of the larger rather than smaller kidney for live-donor transplantation	Decision to proceed with renal donation was based on incomplete assessment of CT imaging	Revise process and checklist for kidney donation to specify the imaging and 'sign-off' requirements

Description of Event	Review Findings	Recommendations/Actions
Anaesthetised child given local anaesthetic block on wrong side	Side marking was not checked prior to the block No second person assisting or observing.	Incorporate a pre-local anaesthetic block pause into "time out" of surgical safety checklist
Kidney drainage tube inserted into the wrong kidney	Patient movement displaced drapes No site markings used Site not re-checked when drapes repositioned Over-reliance on imaging to confirm correct side Some staff thought that there might be a problem but did not vocalise their concerns	Develop standards for side/site identification and marking procedures Procedure Form to include marking documentation "Speaking out" programme for staff
Liver CT scan performed on wrong patient.	Review in progress	Review in progress
New protocol for lymph node excision and pathological examination for cancer was not followed correctly and definitive treatment for a patient was delayed	Lack of awareness of new technique for examination of lymph node tissue	Ensure tissue examination protocols are accessible, located in a central place, and changes are communicated to staff

Procedural injury

Description of Event	Review Findings	Recommendations/Actions
A tracheostomy was partially dislodged during transfer to chair. Difficulties in re-establishing airway led to lack of oxygen to brain and eventual fatal outcome.	Review in progress	Review in progress
Donor organ perfusion cannula left in transplant requiring re-operation	Reviews in progress	Reviews in progress
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Heat pack caused burn to patient due to reduced sensation to temperature and pain from epidural local anaesthetic infusion.	Policy wording to avoid "extremes of hot or cold" was unclear On-line teaching package did not cover this issue	Reduce access to heat packs in this patient population Revise teaching programme and other staff education

Medication error

Description of Event	Review Findings	Recommendations/Actions
Medication (methotrexate) causing severe blood abnormality was not discontinued when tests showed the complication developing	Abnormal blood test was reported electronically but not reviewed Detected on paper report a week later, but poor communication led to patient continuing to take the medication for a further 2 weeks	Recommendations under review

Description of Event	Review Findings	Recommendations/Actions
Diabetic ketoacidosis in a patient with Type 1 diabetes following discontinuation of parenteral nutrition.	Insulin was added to the parenteral nutrition bag as is standard practice. No insulin was prescribed after parenteral nutrition was discontinued. There was no regular blood sugar monitoring.	Recommendations under review
Incorrect dose of adrenaline administered intra-operatively leading to severe cardiovascular disturbance.	Incorrect (1 in 1,000 rather than 1 in 10,000) concentration adrenaline ampules were used to prepare the solution used. Both concentrations were readily available in operating room Inconsistent medication checking processes for drugs administered by surgeons during surgery.	Develop a standardise process for drugs within the intra-operative setting. Audit and revise the availability of the two different concentrations of adrenaline in all ADHB sites.

Delay/failure in follow up or treatment

Description of Event	Review Findings	Recommendations/Actions
Delay in surgery potentially contributing to death of a high-risk patient.	Review in progress	Review in progress
Delay in assessment and planning for treatment of patient with an advanced cancer. Palliative surgery was unable to be performed.	Complex case requiring significant planning and co-ordination Inadequate number of operating lists available over summer break	Surgical services to review summer break planning to ensure timely delivery of time-critical procedures

Description of Event	Review Findings	Recommendations/Actions
Patient with chronic hepatitis B treated with immunosuppressive medication without concurrent anti-viral prophylaxis causing re-activation of hepatitis.	Hepatitis testing performed on two occasions but the positive result was not acted upon. Steroid immunosuppression prescribed appropriately, but without anti-viral prophylaxis	Add automated laboratory interpretation comment on positive hepatitis test results Standardise hepatitis testing and result assessment for patients being considered for immunosuppressive treatment
Delay in resuscitation of patient in cardiac arrest arriving by private car at hospital main entrance	Family member drove to hospital main entrance rather than to emergency department Uncertainty regarding the type of emergency response required Unclear emergency communication process	Recommendations under review
Delayed diagnosis of a baby's congenital cataract in one eye	Review in progress	Review in progress
Delayed diagnosis of lung cancer requiring more extensive treatment than might have otherwise been required.	Chest-xray report suggesting further investigation of a possible abnormality was not acted upon. Information from 3 x-rays was not integrated	Radiology to make reports more directive Better access to old x-rays / reports to improve ability to detect changes

Other clinical events

Description of Event	Review Findings	Recommendations/Actions
Lack of communication to transplant team of adverse event during organ retrieval procedure.	Review in progress.	Review in progress
Immune compromised patient developed Legionella pneumonia following exposure to contaminated hospital water supply	Incomplete infection risk assessment. Water supply was inadequately treated and Legionella contamination was over standards. Delay in identification and treatment for Legionella.	Review and update current guideline of infection risk in high-risk patients, including specific indications for Legionella testing. Modify water treatment system and processes for monitoring Use of sterile water only for nasogastric flushing
Suspected self-inflicted death in a general inpatient service	Review in progress.	Review in progress
Elderly patient developed a large open wound by involuntary rubbing of the leg on the bedrails.	No individualised care plan Inadequate patient supervision due to patient attender not being available Complex situation with conflicting priorities Policy guidance for use of bedrails not followed.	Recommendations under review
Newborn infant who should have been transferred directly to CYFs care was taken from post-natal ward by his parents.	Delay in assessing risk and communication of risk assessment between hospital and CYF staff Delays in completing legal process	Early 'report of concern' for all pregnant mothers with a previous child removed from their care. Multi-agency planning meeting as soon as possible after ROC submitted Use of Kaitiaki Mokopuna assessment tool

Description of Event	Review Findings	Recommendations/Actions
Infant sustained a non-accidental injury (fractured arm) in post-natal ward.	Significant ante-natal risk factors of mother were not acted upon Poor communication between hospital services and community agencies Child protection alert not placed on infant's record	Change process to incorporate all available information on pregnant mothers when assessing potential risk to baby Staff education about interface with other services' processes Establish a process to allow maternal risk information to be incorporated in to baby's clinical record after birth
Unstable patient suffered a major complication during transfer between intensive care units at the same time as the lift being used malfunctioned, preventing optimal treatment.	Review in progress.	Review in progress
Release of body prior to completion and verification of all required tests.	Review in progress	Review in progress

Inpatient Falls

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

Fifty-seven patients had falls with serious harm in 2014-2015. One patient died as a consequence of the fall, 38 patients suffered fractures, five patients suffered serious head injuries, nine patients suffered lacerations that required suturing, and four patients suffered other types of injury (chipped tooth, joint dislocation, revision surgery). The 38 patients whose fall caused a fracture sustained these in a wide variety of sites (nose, rib, wrist, upper arm, pubic rami and lower limb). Nine patients suffered neck of femur fractures (compared with eight in 2013-2014).

Most falls occurred within the hospital (50), but seven falls occurred with outpatients within ADHB facilities. The total number of patients identified with serious harm after a fall in ADHB facilities was higher in the 2014-15 year than that reported in 2013-2014 (57 versus 37).

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 discharge 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. This year we found 16 falls resulting in serious injury that would otherwise have been missed (14 within the hospital and two in outpatients). These falls often involved injuries that are harder to diagnose immediately after falling (pubic rami, rib, clavicle, and talar fractures, and an extension of a subdural haemorrhage), and thus were not reported as such initially.

In response to a previous cluster of falls within an older people's health ward in 2012-13, a concept ward was launched in September 2013 to clarify issues and to test new initiatives to prevent falls. The concept ward was very effective with falls reduced in that ward the 2013-14 year. The initiatives tested in that area have now been incorporated into the falls module in the Releasing Time to Care Programme in May 2015. These initiatives included

- Agreed definitions between disciplines as to the meaning of independence, supervision, and assistance with mobility to standardize the understanding and communication of levels of support required.
- Use of coloured patient wrist-bands to reflect patients' mobility needs (green = independent, orange = supervision, red = assistance) which provide a clear visual cue for all team members on levels of support required.
- Use of standard definitions of toileting attendance to ensure that patients are safe in the toilet no matter what their level of attendance need.
- Use of a falls 'huddle' by staff immediately after a patient fall to review the patient's care and update planning to prevent future falls

These initiatives have been implemented in all the older people's health wards and are in the process of being rolled out in general medicine where there was a cluster of serious harm falls in the 2014-15 year.

Inpatient pressure injury

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. Serious harm pressure injuries are those that are complete breaks in the skin that expose underlying tissues (Grade 3) or deeper structures such as tendons or bone (Grade 4).

Auckland District Health Board has run a monthly random audit to identify how many patients develop a pressure injury in one of our hospitals since March 2012. In that time we have almost halved the number of patients that have pressure injuries, from 8.4% to 4.8%. Most of the pressure injuries were less serious (reddened or blistered skin).

Serious harm pressure injuries are uncommon events. We identify patients with such harms through our patient injury reporting system and a coding query we run each month. Twelve patients developed serious harm pressure injuries in 2014-2015 while in an Auckland DHB facility. Four events occurred in older people's health, two in each of cardiac, surgical, and medical services, and one in children's and cancer services.

Eight of these events are still under investigation or are in the process of being reported. It is too early to determine what further improvements are required to protect patients, as the four completed investigations revealed very different scenarios. However, we will be undertaking an in-depth analysis of all these cases together to identify improvements we need to act upon in the future.

Following on from the success of using a Concept Ward for improving our approaches to preventing inpatient falls, we are currently working to develop a Concept Ward to test pressure injury prevention initiatives.