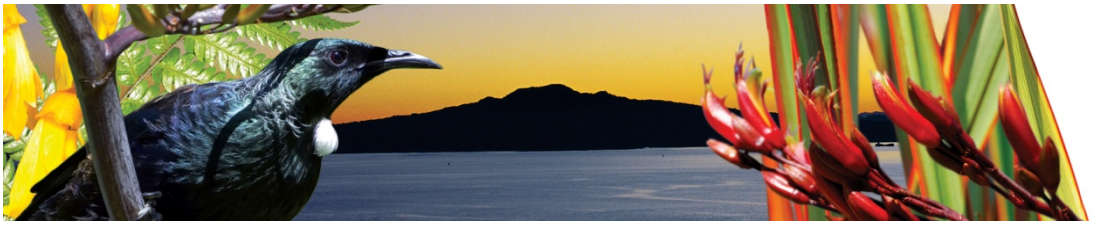


Waitemata District Health Board

Best Care for Everyone

Waitemata District Health Board

Serious Adverse Events Report

(1 July 2017 to 30 June 2018)

Waitemata District Health Board

Best Care for Everyone

Our Promise Statement to our community is 'Best Care for Everyone'. We aim to provide care that is safe, clinically effective, focused on the individual needs of every patient and their whānau and on equity of health outcomes. Our staff's commitment to quality and patient safety is reflected in the excellent health outcomes of our population, with our population's life expectancy at 84.1 years, 2.4 years higher than the national figure. Life expectancy for Māori (80.9 years) and Pacific people (79.9 years) is also among the highest in New Zealand and increasing at a faster rate than other populations. Our amenable mortality rate is the lowest in New Zealand, and we also have one of the lowest rates of hospital mortality of any DHB.

Our clinical teams are supported to design and implement new models of care and best practice care processes, to improve patient outcomes and experience. One of our most important and recent innovations has been the introduction of Qlik Sense, a business intelligence tool that has enabled the development of clinical data dashboards. The dashboards have been developed with our clinicians and provide them with important quality and safety data. The data is available in real-time and is easy to access through a responsive exploration tool. Our 'if in doubt' adverse event reporting culture (described below), combined with our commitment to using data, enables our clinicians to learn from adverse events, identify and track improvements, and see the positive effect on health outcomes and patients' experience. In this report of 2017/18 serious adverse event, we have described some of the improvement programmes that we have developed as a result of investigating and learning from adverse events.

What is a Serious Adverse Event?

An adverse event is an incident which results in unintended harm to a consumer. A serious adverse event is one which has led to significant additional treatment, is life-threatening or has led to an unexpected death or major loss of function.

Serious Adverse Event Investigation at Waitemata DHB

All serious adverse events at Waitemata DHB are investigated by a team of clinicians (e.g. doctors, nurses, midwives, allied health) and quality team staff. To ensure that investigations are impartial, these staff will not have been involved in the event.

Adverse event investigations are undertaken according to the following principles:

- Establishing the facts: what happened, to whom, when, where, how and why
- Looking at systems and processes of care delivery with a view to improvements, rather than blaming individuals
- Establishing how to reduce or eliminate a recurrence of the same type of event
- Formulating recommendations and an action plan
- Providing a report as a record of the investigation process
- Providing a means for sharing lessons from the event

Each event report is then reviewed by the Adverse Event Committee (consisting of senior allied health staff, doctors, nurses, patient experience and quality staff) to ensure that the investigation has appropriately established the facts, addressed all issues and the recommendations and actions are robust. All actions are assigned to a responsible owner and tracked to completion, which is facilitated by the Quality and Risk Team.

NB: Please note that the events discussed in this report do not include Mental Health-related events; these are reported separately via the Office of the Director of Mental Health (Ministry of Health).

Reporting Serious Adverse Events

This report is released in conjunction with the Health Quality & Safety Commission (HQSC) National Report on Serious Adverse Events. The HQSC reports on the **possible** adverse events submitted by DHBs to the HQSC for the same period prior to an investigation having been completed. Once Waitemata DHB has completed an adverse event investigation, the investigation report is approved by our Adverse Events Committee and the event is then **confirmed** with the HQSC. Sometimes, the investigation will identify that the adverse event was not as serious as first suspected and does not meet the criteria of a serious adverse event that is reportable to the HQSC (using an agreed HQSC rating matrix)

In 2017/18, there were **41 confirmed serious adverse event investigations**. Some of these adverse events will have been identified in 2016/17. In addition, there are a number of possible adverse events still under investigation that, if confirmed following investigation, the details of which will be reported in the 2018/19 serious adverse event report. This is compared to 45 confirmed serious adverse event investigations in 2016/17.

Improvements to reporting

In the 2017/18 financial year we made significant improvements to our reporting processes, including putting in systems that will help us achieve the Health Quality and Safety Commission's (HQSC) requirement to inform them of any adverse event within 15 days of it being reported. These improvements have also included a strong organisational focus on the identification, investigation, and submission of suspected hospital acquired pressure injuries, and the reporting of treatment injuries to the Accident Compensation Corporate (ACC) so that that our patients get any additional support required.

Waitemata DHB's approach, is to treat an adverse event initially as serious in order to identify opportunities for care delivery improvements. The facts relating to how the event occurred and the severity of the adverse event are then established through a detailed investigation. On a number of occasions following an investigation into the adverse event, we have identified that it does not meet the criteria of a serious adverse event that is reportable to the HQSC. In this report we report those that are confirmed via this process.

This 'if in doubt' reporting culture has increased the number of adverse events we have reported as possible serious events to the HQSC, and which are subject to a detailed investigation process. We believe that this approach is key to improving the safety and quality of care that we provide, as any investigation undertaken identifies possible improvements to our systems and processes as well as staff training and education needs. The strength of this approach is reflected in the excellent clinical outcomes Waitemata DHB is achieving.

Overview for 2017/2018 Serious Adverse Events

In the financial year 2017/18, Waitemata DHB initially reported 101 **possible** serious adverse events to the Health Quality and Safety Commission (HQSC). An additional 21 events occurred in previous reporting periods and, therefore, are excluded from the 2017/18 data. Following a secondary review of all possible 2017/18 adverse events, 42 out of the 101 have been downgraded due to the fact that it was subsequently established that the event(s) related to the natural course of the patient's illness and not to the provision, or lack of provision, of healthcare; this also includes a number of pressure injuries that still require further detailed investigation to confirm if they were hospital or community acquired.

Waitemata DHB's focus on reducing the occurrence of pressure injuries is discussed later in this report.

During the period covered by this report Waitemata DHB completed **41** investigations into adverse events that had caused serious harm or death (serious adverse events). We investigated and confirmed 45 serious adverse events in 2016/17, a similar figure to the 2015/16 figure.

Each of the 41 **confirmed** serious adverse events were investigated using a systematic investigation protocol. Understanding where improvements need to be made so we can help staff keep our patients safe are the main drivers for the investigation.

The tables below outline a summary of these 41 events, as well as the findings and recommendations. These events have been classified into the following themes:

- Falls with major harm (18)
- Hospital acquired pressure injury (6)
- Delay / failure in follow up or treatment (6)
- General care and treatment (6)
- Procedural injury (3)
- Wrong or unnecessary procedure (1)
- Delay in escalation of treatment (1)

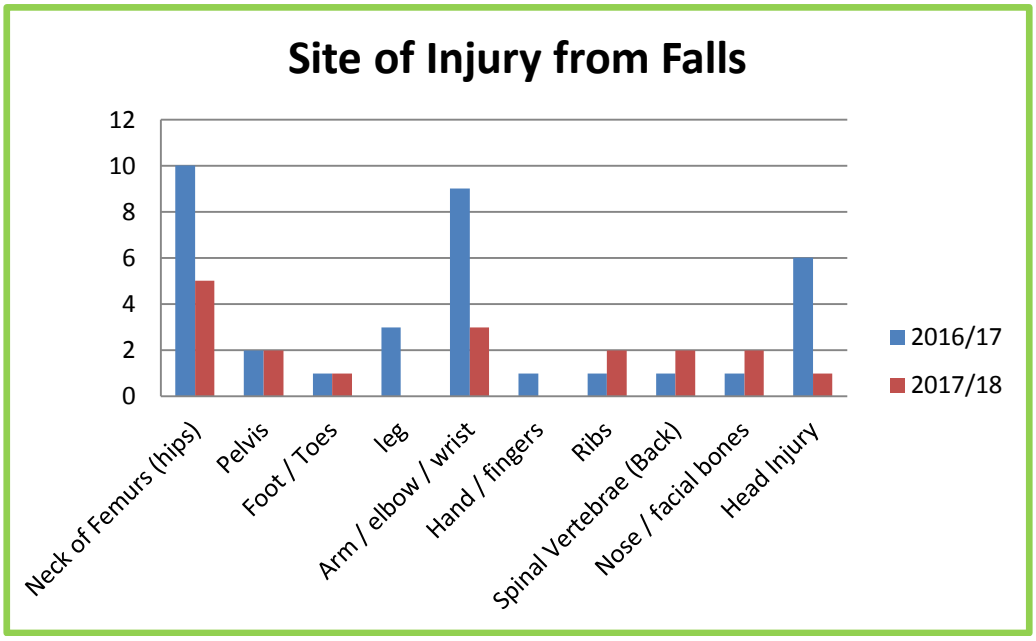
We also investigated and confirmed four incidents classified as Always Report and Review events, a subset of adverse events that are reported and managed in the same way as serious adverse events, irrespective of whether or not there was harm to the patient. Always Report and Review events are events that may result in serious harm or death but are preventable with strong clinical and organisational systems. Recommendations from these investigations have resulted in changes to clinical guidelines, systems, and policies and included education focussed in particular areas.

Falls With Major Harm (18)

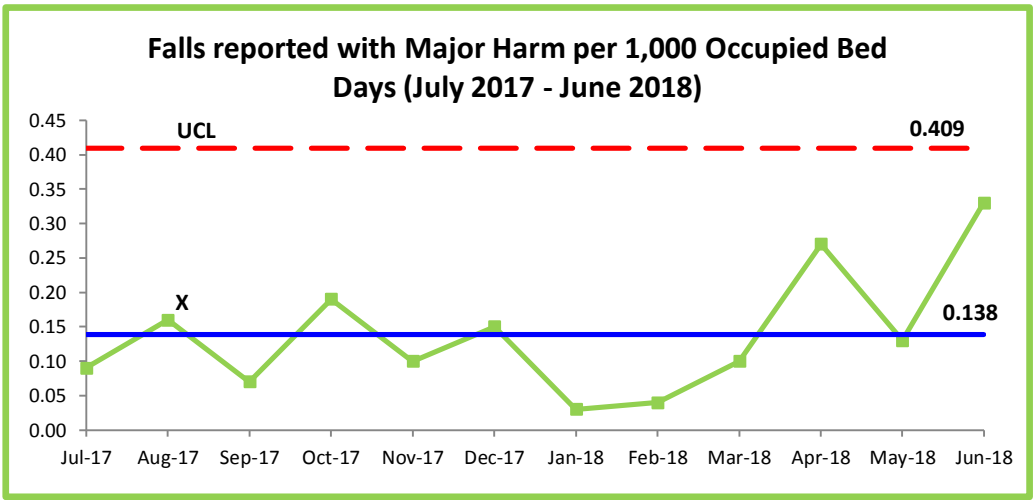
What happened?	Investigation Findings	Recommendations/Actions
18 Patients fell which resulted in serious harm to the patient. 17 of the injuries were fractures and one patient sustained a concussion.	Many patients had multiple comorbidities including cognitive issues with some medically deteriorating. Patients often fell despite appropriate measures being in place. Lack of / incorrect scoring of falls risk assessment. Patients mobilised without the required assistance. Inadequate communication of needs on handover or transfer. Some preventative strategies were not in place in all cases. The need to recognise a change in a patient's presentation that may indicate a decline in functioning. Medication may have been a contributory factor. Some patient's should have been referred	Education provided about the accurate completion of the fall risk assessment and follow up audits for accuracy including the importance of assessing for and performing 15 minute checks when required. Improve hand-over information from the wards to rehabilitation. Consideration should be given to transferring patients to wards during day time for high risk patients with delirium. Staff to be reminded of impact of medications on falls risk. A reminder to staff to reassess the falls risk should a patient's condition or behaviour change to ensure falls risk prevention strategies are appropriate throughout their entire admission. Case review with nursing staff and Health Care Assistant's to realise the importance of supporting patients in the toilets

What happened?	Investigation Findings	Recommendations/Actions
	to the behaviours of concern speciality registered Nurse for a comprehensive nursing assessment and individualised nursing care plan. Patient was left unattended in the toilet when staff should have stayed with them. Patients unaccustomed to new mobility aid and mobility status.	Clear discussions with patients and nursing staff and update the patients' information board with any changes to mobility status and any new recommendations on how to mobilise. A new sign for reminding and prompting patients to ring the bell on the ward when they require assistance.

The graph below compares the number and site of injury from falls with major harm for 2016/17 and 2017/18. It is pleasing to see a reduction in fractured neck of femurs.



The graph below shows the rate of falls with harm per occupied bed days for 2017/18. The blue line (X) indicates a median rate of 0.138 falls per 1,000 occupied bed days. The dotted red line is the upper control limited (UCL), indicating that there has not been any significant changes to the rate during the year. These reported adverse events will be subject to a full investigation, before they are confirmed serious adverse events.



What are we doing to reduce further falls with harm?

The Falls Injury Prevention quality improvement group is undertaking a root cause analysis to identify why, despite implementing international best practice, there is a persistent number of falls with harm. The DHB nursing service has implemented a range of initiatives with an aim of reducing in hospitals falls which result in harm.

The work focuses on:

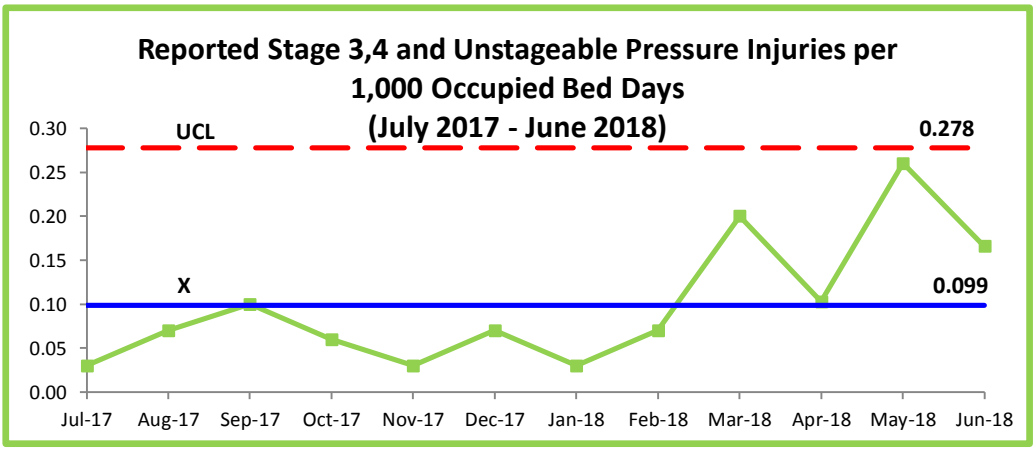
- Proactive assessment and prevention planning, ensuring that the required assessments on admission and regularly through admission are undertaken
- Elimination of deconditioning – such as the 'Get up, get dressed, get moving' initiative
- Consistent use of approved bundles of care
- Patients and family education about falls prevention and safety measures
- Consistent review when falls occur and appropriate treatment initiated
- increased monitoring of incidence and trends with key clinical teams

Hospital Acquired Pressure Injury (6)

What happened	Investigation Findings	Recommendations
Six patients developed pressure injuries whist in hospital, the most common being to the heel and sacrum.	Waterlow scores (a scale that gives an estimated risk for the development of a pressure sore) were sometimes incorrectly calculated with incorrect bundles of care put in place. Pressure injury staging (the extent of tissue damage) was incorrect. Some patients were frail with complex needs and high probability of pressure injury due to deteriorating clinical condition, malnutrition and immobility. Patients at high risk of developing pressure injuries, should have been turned every two hours to minimise risk. High risk patients should be transferred on an air mattress. Recent evidence has not supported the use of both sequential compression devices and anti-embolism stockings in the Intensive care unit setting. Assessments not completed and a wound care plan was not actioned in a timely manner. Delayed incident reporting. Ward handover did not accurately communicate accurately the condition of pressure injury.	Discuss care needs with the nursing teams to highlight the needs of high risk patients requiring careful assessment and implementation of appropriate bundles of care. Nursing education and follow up audits of application to practice and documentation. Explore options to improve care for the frail older adult. Identification of this cohort of clients at the front door and correct placement for them. Charge nurse managers and Nurse Educators to monitor all patients with pressure injuries and conduct ward audits to determine correct use of wound care plans. Increased vigilance to transfer high risk patients on an air mattress. Anti-embolism stockings to be discontinued on Intensive care ward and an alternative method used to reduce risk of deep vein thrombosis. Assessment on admission must be in place and a care plan to guide staff practice and be reviewed weekly or if there is a change in the patient's condition. Handovers to include questions regarding pressure injury when accepting a patient transfer.

What happened	Investigation Findings	Recommendations
	Staff did not regularly review the wound or change the dressing regularly. No air mattress was ordered. Pressure injury was not mentioned on the Electronic Discharge Summary (EDS) to ensure on-going continuity of care.	Discuss with medical team to ensure pressure injuries are noted on the Electronic Discharge Summary. Repeat re-training about the essentials of care, 'geriatric giants' and care of patients with dementia and delirium. Training to include Health Care Assistants.

The graph below shows the rate of Stage 3, 4 and unstageable pressure injuries per occupied bed days for 2017/18. The blue line indicates a median rate of 0.099 stage 3, 4 and unstageable pressure injuries per 1,000 occupied bed days, for this reporting period. The dotted red line is the upper control limited (UCL) indicating that there has not been any significant changes to the rate during the year. These reported adverse events will be subject to a full investigation, before they are confirmed serious adverse events.



What are we doing to further reduce pressure injuries acquired in hospital?

The DHB has followed the national and regional approaches to raise staff awareness, reinforce competence in assessment and we have implemented bundles of care for prevention. This year the Department of Nursing with the charge nurse group have also implemented a number of wider ranging 'back to basics' measures and have increased accountability for actions, including the following;.

- All patients aged 65 and older are required to have a Waterlow skin integrity risk assessment completed within eight hours of admission and then every two days thereafter
- All patients have visual skin assessed at least twice daily as part of pressure care and hygiene
- All patients are to be assisted to change position every two hours i.e. two hourly turns (this includes patients on pressure relieving mattresses)
- All patients are assisted to mobilise twice daily as part of the Pathway for Acute Care of the Elderly (PACE) and Frailty campaigns e.g. "Get Up, Get Dressed, Get Moving".
- The Charge Nurse Manager/Shift Coordinator reviews all patients daily who have been identified with skin redness or a pressure injury so that action to prevent further harm is completed
- Implemented e-vitals recording of risk assessments on admission and prompts.
- Improvements have been made to the frequency and availability of staff education and awareness
- Patients and families/ whānau are alerted to the potential for pressure injuries and asked to help with two hourly turning and support of their family/ whānau member with mobilisation and pressure relief. They are also encouraged to escalate any concerns with regard to skin redness

- Review of the pressure-relieving mattress, sourcing a superior product that targets patient's sacrum and heels. The new mattress 'off loads' heels and has a 'seat deflate setting' to minimise pressure on the sacrum whilst sitting. 500 nurses and health care assistants have attended training
- The mattress supplier has designed pressure-relieving mattress covers which have visual reminders e.g. "turn 2 hourly" and "check for moisture"
- Provided extensive education and developed on-line learning about prevention and staging

An application has also been made to the Accident Compensation Corporation (ACC) to support a pilot project to help us focus on achieving a reduction of hospital acquired pressure injuries and achievement of zero stage 3 and stage 4/unstageable pressure injuries. The aim is to recruit a Tissue Viability Clinical Nurse Specialist / project leader for 12 months to provide leadership, education, model patient assessment, care planning and implementation and evaluation. The role will follow-up all pressure injuries reported, review the care plan with the staff, reinforce expectations, monitor changes following treatment and report on incidence.

The Tissue Viability Clinical Nurse Specialist role would work with the Nurse Expert, and the DHB Pressure Injury Management Group to implement the work plan in conjunction with the re-engaged ward pressure champions (link nurses).

Ward champions will be provided with: dedicated time each month for pressure injury prevention, education about expectations, information about their ward practices and clear role in implementing changes that are required on their ward. While all wards/units will be included, key wards will be targeted for intensive attention to achieve change.

Delay / Failure in follow up or treatment (6)

What happened?	Investigation Findings	Recommendations
Intrauterine death of a twin at 32 weeks gestation.	This was a high risk pregnancy that was being appropriately monitored in the antenatal period. On first admission with abdominal pain the CTG trace (Cardiotocography - record of fetal heat beat) was not reassuring but this was not detected by the midwives or the obstetrician providing care. Had the trace been recognised as non-reassuring, further investigation to assess the well-being of both babies would have been recommended. The suspected demise of one baby was not communicated appropriately to the family. There were no facilities at Waitakere Hospital to provide a formal ultrasound to confirm fetal demise which meant that transfer to North Shore was required.	Mandatory annual CTG training for Waitemata DHB midwives (already in place) and obstetricians. Training for staff on the management of fetal demise and how to communicate this with families. Develop guidelines on the management of situations of suspected fetal demise and include information as to when a formal ultrasound scan is required.
Delayed diagnosis of Hepatocellular Cancer.	The liver biopsy reported benign-looking hepatocytes and that that no malignant cells were seen. It also stated the sample is "non-diagnostic". Liver biopsy findings interpreted as "benign" created false	Non-diagnostic samples to be reported as: "Diagnosis: non-diagnostic, see text" to avoid false reassurance of results. The case was discussed at a Radiology Audit

What happened?	Investigation Findings	Recommendations
	reassurance at subsequent follow up. Non-malignant findings and reports of the mass decreasing in size on the follow up computerised tomography (CT) liver scans were incorrect as reported at subsequent review. There was a failure of the "planned follow up" process and a failure to respond adequately to the General Practitioner's re-referral. Undue delay in ordering of CT scan on one occasion.	Meeting in June 2017 with dissemination of these learnings to all Radiologists. The case was reviewed with the reporting radiologist.
Missed diagnosis and delayed / inadequate treatment of tooth decay in a child.	Not placed on the correct appointment schedule following visit. At the recall appointment the Dental Therapist failed to diagnose the decayed lesions during visual examination. The clinical notes from the earlier visit were not reviewed by the Dental Therapist. Dental Therapist incorrectly relied on previous interpretation of the X-rays instead of reviewing them for herself. Inexperience of the Dental Therapist who incorrectly read the X-rays and incorrectly treated the child without reading the X-rays.	An up to date fluoride protocol should be in place, and the application of fluoride must be written into treatment plans for all children. Meeting with staff to discuss accuracy of clinical diagnosis, the importance of reading past history and accuracy of radiograph readings. A "pop-up" note will be created when a clinician attempts to complete a patient if all treatment is not completed. Staff involved are required to read and make diagnosis from a series of x-rays over two weeks. A log must be kept and signed off by senior therapist. Instigated a support and development plan for the Dental Therapist. Explore the possibility of equipping diagnostic vans and transportable dental units to have the ability to process X-rays by having digital radiography.
Fetal death in labour.	Sudden and unexpected death of a term infant in labour in an otherwise well mother. Despite a possible maternal history of meconium, a CTG trace (Cardiotocography - record of fetal heat beat) to establish fetal well-being was not undertaken.	Midwives to be reminded that a history of meconium should be treated judiciously until proven otherwise. "Fetal assessment in labour" guideline to be amended to include that that where a history or suspicion of meconium liquor, an admission CTG is appropriate. Midwives to be reminded that they must document accurately how and when they have assessed fetal wellbeing.

What happened?	Investigation Findings	Recommendations
Pulmonary embolus after surgery leading to death of a patient following discharge.	The patient should have been discharged on medication to prevent blood clotting. There were several missed opportunities to check and confirm whether the medication was prescribed. Thromboprophylaxis was not part of the sign-out checklist (Surgical Safety Checklist in theatre). A post-operative plan for deep vein thrombosis prophylaxis was made in the dictated operating note but not included in the handwritten note made in the patient's paper health records.	Thromboprophylaxis Risk and Prescription Guideline to be made a "protocol". Medical staff are instructed to complete the risk assessment and prescribe thromboprophylaxis when the risk criteria are met. Staff should obtain advice from a consultant haematologist. Assign a standard place to document electronically the Venous Thrombo Embolic (VTE) risk assessment. There should be a standard orthopaedic ward round checklist that includes VTE prophylaxis. There should be a mandatory field in the electronic discharge document that requires the author to indicate what VTE prophylaxis (if any) is required. VTE risk assessment and prescribing should be added to the Sign Out part of the Surgical Safety Checklist and there should be staff training on the amended checklist. A handwritten note with post-operative instructions should continue to be made in the health record (in addition to the typed operation note) There should be a mandatory template for written operation notes (post-operative plan) which includes thromboprophylaxis orders.
Patient death from internal bleed.	The patient was taking warfarin and the INR (level of coagulation) was 3.1 (high) which should have been reversed. There was a failure to recognise the catastrophic nature of pelvic bleeding in the setting of an acute fracture and anticoagulation. Overnight there was no clear plan in place The Intensive Care unit should have been consulted.	The case was discussed at the departmental morbidity and mortality meeting for learning. Further education and support for ward staff in the identification and management of high risk patients is required. A deteriorating patient initiative is underway across Waitemata DHB.

What are we doing to further reduce Delay / Failure in follow up or treatment?

A number of improvements, which will prevent failure of planned follow-up, have been made to the patient booking systems and processes.

These include:

- Increased visibility when an appointment is booked in the electronic record.
- System changes to ensure follow up of referrals from General Practitioners.
- Patient Service Centre business rules to include clinical oversight of planned appointments in conjunction with a booking clerk.

Waitemata DHB is participating in the national deteriorating patient quality improvement programme. The overall aim of Waitemata DHB's Patient Deterioration Programme is to reduce harm from failure to recognise and respond to acute physical deterioration for all inpatients (including maternity and paediatrics) by July 2021.

In 2018 Waitemata DHB launched Kōrero Mai, an escalation system for deteriorating patients. When a patient or their loved one is unwell, it can be difficult for them to communicate to staff about what is happening, or staff may not understand how worried they are about their health. An 'escalation system' is a process where patients, family or whānau can escalate their concerns about their or their loved one's health to another staff member, if they feel they are not getting the care they need. Delayed recognition of, or response to, patient deterioration is an adverse event, and, although staff may always be doing their best, difficulties with communication can arise. The purpose of this co-design project (consumers and staff work together to understand consumers' experience, and work to design and test solutions together) is to develop a patient, family and whānau-led escalation system for patients whose condition is deteriorating. This means that the experiences of patients, family and whānau affected by deterioration or poor communication will be investigated and used to co-design solutions with consumers.

Procedural Injury (3)

What happened?	Investigation Findings	Recommendations
Sepsis following trans rectal ultrasound (TRUS) biopsy.	A box on the laboratory report was not ticked that usually alerts the clinicians that the report is incomplete and a complete report was to follow with further information relating to the bacteria type. This resulted in the report being interpreted as final and the wrong antibiotic prophylaxis being given.	That the laboratory removes the tick box option indicating the report is incomplete releases only completed reports.
Oesophageal obstruction by dislodged dental partial plate.	The Patient did not inform staff of the partial dental plate. The "Airway" question has been removed from the World Health Organisation's Safe Surgery Saves Lives (SSSL) checklist sign in sheet and so the presence of dentures was not noted in the sign in The Anaesthetist was aware of the plate, but did not remove it. Anaesthetic record did not state any damage to dentition	Staff to clarify and ensure the patient understands the question about false and loose teeth. The 'Airway' question should be replaced in the checklist sign in section, and state of dentition noted by the anaesthetist at sign in. At sign out in response to the question on postoperative concerns, the anaesthetist should note dentures, if relevant, and their disposition (in patient, in container) and any other prostheses (hearing aids, glasses etc) Anaesthetist to document state of teeth clearly in anaesthetic record

What happened?	Investigation Findings	Recommendations
		Recommend soft tissue neck X-Ray if there is a question of missing teeth. Case to be presented at staff meetings.
Incorrect assembly of Dermatome device resulting in full thickness skin graft.	The equipment was assembled incorrectly. The equipment was not checked to ensure correct assembly before use.	A policy has been written outlining that the surgeon is to load the device and to have a checking system to ensure two people double check the blade is loaded correctly. Staff education and case review presentation to appropriate surgical team.

What are we doing to further reduce procedural injuries?

The incident involving the incorrect assembly of the Dermatome device was the third case of this nature in New Zealand, therefore Waitemata DHB has written to HQSC and Medsafe and recommended that they follow up with the manufacturer regarding a safety mechanism to prevent recurrence.

Wrong or Unnecessary Procedure (1)

What happened?	Investigation Findings	Recommendations
Skin lesion surgery performed on incorrect site. The correct lesion was then subsequently removed.	The patient was not given the opportunity to visually identify that the surgical site was marked correctly.	There should be a photograph sent with every skin lesion referral which, on the day of surgery, must be available and sighted by the surgeon. There should be an accurate, detailed specification of the site and location of all skin lesions documented in the patient's clinical record. At the time of surgery, if the skin lesion is no longer visible or there is any uncertainty about the location of the lesion, then the operation should not go ahead. The patient should be asked to return to their General Practitioner to mark the lesion if it reappears/becomes apparent.

Delay in Escalation of Treatment (1)

What happened?	Investigation Findings	Recommendations
Maternal influenza and sepsis requiring admission to the High Dependency Unit (HDU).	The clinical response to the mother's deterioration was appropriate and resulted in an urgent caesarean section. The MEWS (Maternity Early Warning Score) chart was not consistently completed however the patient did receive regular clinical review. There was no documented review by the obstetric Senior Medical Officer (SMO) but the SMO was aware of the situation and	Case study presentation to maternity staff to highlight the risks of influenza in pregnancy and superimposed bacterial infection Staff are to be reminded to recommend the flu vaccine to pregnant women and to document that it was offered and subsequently given or declined. DHB midwives to undergo further training in the accurate and on-going documentation

What happened?	Investigation Findings	Recommendations
	was directing the Resident Medical Officer.	on MEWS charts for women. Auditing pre and post training should be undertaken. Orientation of Junior medical staff is to include how and when to escalate concerns to the SMO (medical or obstetric) for pregnant women who are unwell. All women in an unstable condition admitted to maternity will have a daily review by the SMO responsible for their care. Maternity staff to be reminded to document discussions with staff regarding transfer requests using the ISBAR (Identify, Situation, Background, Assessment and Recommendation) communication tool and to be supported to escalate concerns to an SMO if required. Case to be included as a case study in the deteriorating patient programme.

What are we doing to further reduce injuries from delays in escalation of treatment?

The Deteriorating Patient Programme discussed on page 10 and the Survive Sepsis project described on page 13 aims to reduce this type of injury.

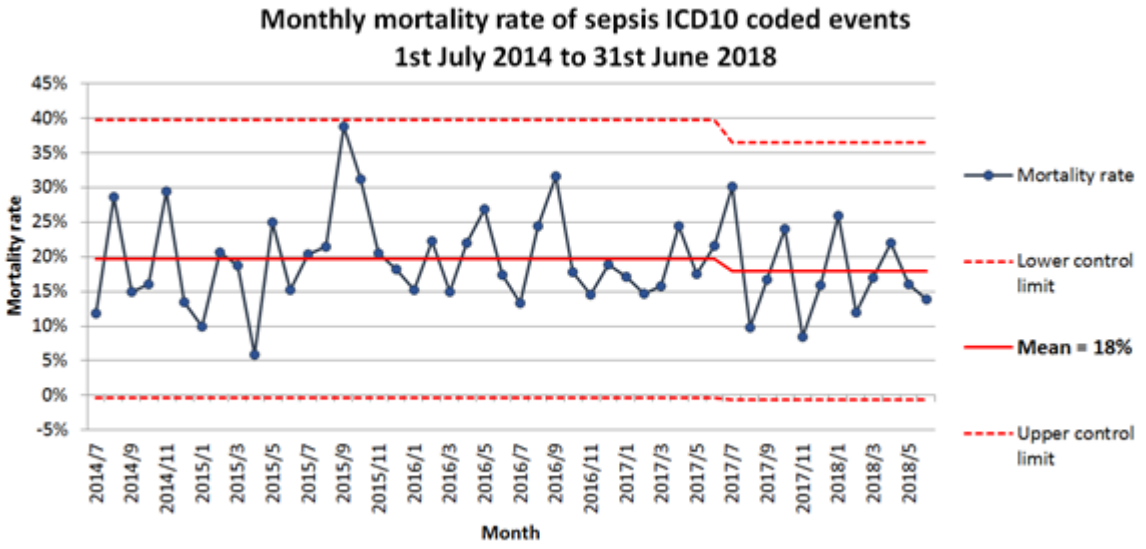
General Care and Treatment (6)

What happened?	Investigation Findings	Recommendations/Actions
Post-partum haemorrhage after a normal vaginal birth requiring activation of massive transfusion protocol.	The induction of labour plan was appropriate in the clinical circumstances; however the reason for the induction was not clearly documented. Ibuprofen, a non-steroidal anti-inflammatory drug for pain relief, is contraindicated in pregnancy and labour due to increasing the risk of bleeding. This was not likely to have significantly contributed to the haemorrhage as this patient had other significant risk factors for haemorrhage.	Remind obstetric staff to document the indication for an induction of labour clearly. All staff to be reminded that non steroidal anti-inflammatory drugs are contraindicated in labour.
Rectal and forth degree tear with post-partum haemorrhage (PPH).	An obstetrician undertook initial repair of the tear however it would have been ideal for a colorectal surgeon to perform the repair. The PPH was appropriately managed. The bimanual compression used for treatment of the PPH likely extended the rectal tear.	All forth degree tears should be reviewed and repaired by a colorectal surgical team as per protocol.

What happened?	Investigation Findings	Recommendations/Actions
Hospital Acquired Blood Stream Infection resulting in death.	The indication for inserting a catheter was clear and it was appropriately removed less than 72 hours after insertion. This case highlights that whenever a urinary catheter is inserted there is a risk of harm (infection) even if the most careful technique is used.	No specific recommendations have arisen from this case; however the Survive Sepsis project contains initiatives to reduce inpatient mortality.
Surgical site infection following breast reconstruction.	Initial admission treatment was appropriate. District nursing plan for more home visits was not followed. The district nurse relied on the patient's personal report of her wound status.	The district nurse has been provided with professional support and supervision following this incident.
Tracheostomy dislodgement prevented ventilation via the tube causing hypoxia and subsequent cardiac arrest. Patient recovered.	This was an unusual internal dislodgment (it usually occurs externally) that likely occurred when the patient was being turned. This patient had substantial soft tissue in her neck and the size of the fixed tube may have been too long. A flexible tube may have been better. There is no formalised training for emergency help with airway management.	Ensure the presence of a dedicated airway nurse to keep for all patients with artificial airways to support the head in flexion when turning to maintain the airway. Individualise the type of tube used in airway management. Provide simulation training for airway management.
Accidental removal of a haemodialysis catheter causing bleeding.	Dialysis extra-corporeal circuit lines should be secured as per the "Commencing and discontinuing dialysis with a central venous catheter" policy. Staff responded immediately and appropriately preventing further deterioration. There is a tendency for tunnelled lines to be vulnerable to extraction given their mechanism of attachment.	All extracorporeal lines should be secured in a way that avoids any pulling on the catheter and does not leave lines hanging down where they could be caught or pulled. To be clarified within the policy "commencing and discontinuing dialysis with a central line venous catheter" Staff to discuss with patients specific risks of tension of the line in each new unit. To be clarified in the policy above.

What are we doing to further reduce injuries in General Care and Treatment?

Waitemata DHB designed and executed an 18 month Survive Sepsis Improvement Collaborative with our Emergency Departments leading the way. The programme that includes: a best practice guideline and treatment algorithm developed by an expert advisory group, an electronic alert and screening tool built in our eVitals system, a sepsis treatment protocol built in our electronic prescribing system, clinical education, ward based improvement initiatives and the development of a measurement dashboard to track progress. In the last year, there has been an increase in the number of patients coded with sepsis. The increase coincides with our Survive Sepsis campaign and the launch of the sepsis screening tool in eVitals. This is means we are better at recognising cases of sepsis and able to act promptly.



We progressed the 'Take Charge Campaign', an awareness campaign promoting the bundle of interventions that are used at Waitemata DHB to prevent Multi Drug Resistant Organism (MDRO) cross transmission. This included Infection Prevention and Control nurse-led educational sessions to nurses, cleaners, doctors and allied health; new contact precautions and take charge promotional door posters; Instructional videos for contact precautions for doctors, nurses and allied health; an instructional video on how to clean an MDRO room and toilet for cleaners; a patient experience video of a patient who contracted an ESBL (extended spectrum beta lactamase) infection while in Waitemata DHB; and auditing pre-intervention and post-intervention. An audit at the end of 2017 returned an average 32% reduction in hospital acquired ESBL infections after 6 months in intervention wards and 41% reduction in the overall hospital acquired ESBL infection rate.

We developed an innovative patient-centred approach to prevent surgical site infection in orthopaedic arthroplasty surgery. We have implemented a trial of Staphylococcus aureus decolonisation which rolled out in November 2017 and are currently the lead orthopaedic pilot site in a national Health Quality and Safety Commission Staphylococcal decolonisation project in cardiac and orthopaedic surgery with an aim to reduce orthopaedic surgical site infections by 20% by July 2019. We engaged and listed to our patients and helped them to understand their participation is vital. Education was given to the patients by the pre-admit orthopaedic nurses and a patient information pamphlet discussing how patients can prepare their skin before surgery. Patients are recommended to apply mupirocin ointment twice daily for 3 days before surgery and to wash their whole body with chlorhexidine sponges once daily for 3 days before surgery. The results from the trial of 157 patents showed a 95% compliance with decolonisation and only one confirmed case of superficial surgical site infection since implementation in November 2017.

Final comment

Adverse event reporting and investigations are fundamental to enhancing patient safety and experience as well as improving the quality of care we provide. By learning from adverse events and near misses we are able to identify areas for improvement and further development, that will help our staff deliver safe, effective and person centred care.