Auckland District Health Board Summary

1st July 2019 – 30 June 2020

Adverse Events

Our adverse events programme at Auckland DHB aims to involve patients and whānau and our staff in our adverse events process in a respectful way, enabling us to learn and improve as an organisation. All adverse events are reviewed. The findings from the reviews enable learning and recommendations to improve our systems and processes and thereby the care patients and whānau experience.

Adverse events identified as serious (Severity Assessment Code 1 or 2) receive an in-depth review by a multidisciplinary team of staff (for example doctors, nurses, midwives, allied health and technical staff, operations managers) and clinical quality and safety service staff. The review reports are then assessed by a committee of senior clinical and management staff to ensure they are robust and that issues which may need to be addressed at an organisational level are identified. The recommendations that result from the review process are tracked to ensure that follow-up and implementation occurs.

Auckland DHB has reported 81 adverse events (excluding Mental Health adverse events) to the Health Quality and Safety Commission (HQSC) for the year 1 July 2019 to 30 June 2020.

The event numbers need to be understood in two contexts. Firstly, they are a very small proportion of the overall number of clinical encounters across the DHB. Secondly, while the events reported here are those that were reported in our incident management system during the reporting year 2019/20, the event itself may have occurred in previous reporting years, therefore these numbers are not an accurate indication of the incidents that occurred during the 2019/20 reporting year.

This year there has been an increase in reported numbers of events from our Women's Health service following the introduction of the maternity Severity Assessment Code examples by the Health Quality and Safety Commission in 2019. Some of these events are complications where no system or process issues have been identified following review of the case.

The tables below outline a summary of events, findings and recommendations related to the events for 2019/20. The events have been classified using the same methodology as the Health Quality and Safety Commission uses (see: https://www.hqsc.govt.nz/assets/Reportable-Events/Publications/Learning-from-adverse-events2019-web-final.pdf).

WHO category	WHO code	ADHB SAC 1 and 2 adverse events 2019/20
Clinical management	01, 02, 14	29
Documentation	03	0
Healthcare associated infection	04	0
Medication/IV fluid	05	1
Blood/blood products	06	0
Nutrition	07	0
Oxygen/gas/vapour	08	1
Medical device/equipment	09	0
Behaviour	10	0
Consumer accidents	11	0
Falls	12	24
Infrastructure/building/fittings	13	0
Review in progress	N/A	26
Total		**81**

Clinical Management

Description	Findings	Recommendations
Delay in diagnosis of a sigmoid volvulus	Delay to recognition and appropriate escalation and documentation of a deteriorating patient contributed to a delay in diagnosis	• Develop and implement a safety net pathway for escalation of deteriorating patients not cared for by hospital teams who do not meet the threshold for hospital emergency response calls. • Review of the content of the Access Holder's agreement. • Refresh Maternity Early Warning Score training. • Improve documentation of all telephone interactions with private Lead Maternity Carers. • Review incident notification timelines.
Ruptured Ectopic pregnancy resulting in haemorrhagic shock	Uncommon type of ectopic pregnancy. Ultrasound scan did not report position of placenta.	• Ultrasound in women with early pregnancy should report morphology and position of placenta.
Delay to diagnostic test	A significantly preterm baby became clinically unwell. A full sepsis screen was performed, including a test that was negative for meningitis. There was a 48-hour delay in completing an additional test that diagnosed meningitis.	• Review the antibiotic guidelines in the Neonatal intensive care unit. • Reinforce importance of early escalation of concerns to senior staff. • All referrals to be communicated to senior staff. • Improve ease of communication between intensive care unit staff and surgical teams in the operating room. • Consider training intensive care staff to undertake diagnostic test
Correct patient received cataract	ADHB has multiple IT systems which are not fully	• Develop and implement a standard operating procedure

surgery but had the wrong hospital number (NHI)	integrated with a live interface, meaning that demographic data updated in one system is not automatically pushed through to all systems across the DHB. An inconsistent process of patient identification contributed to 2 patients having their hospital numbers (NHIs) merged.	clearly outlining the processes for merging and unmerging patient demographic data and clinical information, including the criteria for clinician involvement.
Cardiac arrest in a pacemaker dependent patient probably due to inadequate connection of pacing lead to pacing unit	Connection of the lead to the pacing unit in the Operating Room probably resulted in suboptimal contact between the lead and the unit which worsened over time resulting in a failure to pace. There is no best practice guideline or standard operating procedure available for a surgeon implanting a pacemaker or replacing a lead. This procedure is performed relatively infrequently by an individual surgeon and may be a small part at the end of what has been a long and complex procedure.	• Cardiac Physiologists to attend the time-out in the operating room pre-procedure to confirm procedural expectations. • Develop a standard operating procedure for pacemaker insertion and/or epicardial lead replacement undertaken in the operating room.
Brain injury during cardiac surgery resulting in patient death	Personnel attending and communication from the surgical planning meetings is inconsistent. This contributed to the surgeon not being aware a diagnostic test would be done in the operating room. The diagnostic test findings had to be interpreted and any change to the operation plan considered under time pressure. Limitations in the performance of the diagnostic test, unclear communication about the findings, and the need for interpretation of the study under time pressure contributed to the team thinking the test was negative.	• Surgical planning meeting - develop terms of reference and an improved process for communicating action points and documentation of task completion prior to surgery. • Develop a guideline for intraoperative agitated saline contrast (`bubble') studies

Cardiac arrest secondary to anorexia nervosa	There are no standard admission criteria across the three metro Auckland DHBs for patients with eating disorders	• Auckland DHB Mental Health and Addictions services to develop and implement medical admission criteria for adults with an eating disorder
Retained wound dressing product	There is an inconsistent process of documentation and handover of relevant information regarding wound care from secondary care to primary care, with incomplete information about negative pressure wound therapy and use of foam products.	• Wound Care group to review surgical wound products and audit the handover processes from secondary to community care from May 2017 – April 2020 and make recommendations for improvement to nursing leadership.
Missed follow-up resulting in deteriorating vision	The clinic outcome form completed in December 2018 did not request continuation of the current treatment plan as it only has an additional referral (to an Ophthalmology sub-speciality service) noted, which led to a patient being lost to follow-up resulting in deteriorating vision.	• Establish a regular report that identifies medical retina and glaucoma patients who are not waitlisted for an appointment at the requested interval as a back-up safety system.
Pacing check led to cardiac arrest requiring defibrillation in a patient after cardiac surgery	Temporary pacemaker check was performed incorrectly and led to the ventricular fibrillation The pacemaker was still connected on postoperative day two	• Develop a “one page” cognitive aid for a pacemaker check, which is laminated and deployed in every relevant bed space • Complete the roll out of the guideline-containing app and encourage all staff to use this app to follow the latest pacemaker clinical guideline when managing routine temporary pacemakers • Ensure that the use of the pacemaker clinical guidelines and the associated cognitive aid is simulated in the pacemaker study days.
Delay to diagnosis of aortic occlusion	Aortic occlusion is a rare diagnosis that is difficult to make. Delay in diagnosis was related to	• Complete and implement the guideline ‘Escalation of clinical concerns to Senior Medical Officers.’

	undifferentiated symptoms. There were also delays in progression towards diagnosis related to delayed involvement of the appropriate senior clinical staff and decisions around diagnostic imaging	• Review and update the Auckland DHB radiology process for managing requests from the emergency department (to expedite imaging in situations of diagnostic uncertainty).
Delay to recognising procedure-related bowel perforation resulting in prolonged hospital stay	No findings considered related to the outcome	
Hysterectomy following 2nd trimester termination of pregnancy	The placental position and attachment were not reported on the ultrasound report, which led to a large intraoperative bleed and emergency hysterectomy after termination of pregnancy	• Provide feedback to the external provider regarding requirements for the reporting of scans.
Loss of vision due to delay	1. The administrative safety system (using a "red priority" box) was not completed which meant an outpatient appointment was re-scheduled without clinical input. 2. Orientation on administrative processes could be improved for all new staff.	• Alter the safety system of using a priority box on the clinic outcome form to prompt clinicians to complete it and thereby allow for consistent identification of patients at risk whose appointments cannot be delayed. • A system will be put in place to ensure clinical input before any appointment is re-scheduled for a patient who has not had the priority box completed. • Reinforce mandatory training for all new staff, including those returning to the service, on administrative processes prior to providing clinical care
Postoperative epidural haematoma leading to loss of motor function	Several factors including radiology triage process and absence of a formal escalation pathway for epidural complications led to a delay in emergency surgery for the epidural haematoma.	• Formalise an escalation pathway for epidural complications and include on the epidural observation chart • Review the acute triage and prioritisation categories for MRI scans (for the purposes of making priority transparent)
Delay to recognition, escalation and management of necrotising fasciitis	There was a delay in the recognition and treatment of sepsis and subsequent difficulty in the diagnosis of necrotising fasciitis was compounded by the presence of other diagnoses.	• Develop a sepsis bundle and implement in the adult medical service starting with the emergency department. • Change the clinical guideline for early warning score measurement and escalation to include the requirement for discussion with a senior medical officer prior to

	Modification of the early warning score was made without Senior Medical Officer involvement. There were inconsistent processes for repeat escalations to the Patient at Risk team. The patient's family felt the concerns they raised were not always heard and responded to.	modification. • Update Patient at Risk team processes related to repeated escalation calls. • Review inter-service interactions to define the responsibilities for the Patient at Risk team, the ICU team and the primary treating team more clearly when there are repeated escalation calls for individual patients. • Advance the implementation of patient, family and whānau escalation of care
Infected fibroid resulting in hysterectomy	No findings related to systems or processes.	
Stillbirth following emergency caesarean section	Earlier recognition of warning signs may have led to earlier delivery and a less severe outcome for the baby.	• Simulation training using similar scenarios.
Delay in diagnosis of ectopic pregnancy	A pending laboratory result was misread	• Consider activating the search function that identifies abnormal results in the laboratory reporting system.
Placental abruption at 37 weeks gestation	Placental abruption leading to emergency caesarean section. Due to high service caseload at the time ward midwife needed to assist in operating room with resuscitation of baby, which left the ward understaffed while the midwife was in the operating room.	• Good care was provided to mother and baby • Consider whether an escalation pathway for staffing is needed for potential emergency presentations when caseload is high in Women's Assessment Unit.
Placental abruption leading to intrauterine death	Primigravid woman presented acutely at 36 weeks with abruption	• No recommendations related to event.
Fall while mobilising resulting in bilateral subdural haematomas	The Behaviour of Concern (BoC) pathway was stopped. This led to less supervision overnight while adjusting to a new environment (room) which is known as a risk factor for disorientation for patients with dementia. The communication between the staff involved	• Change to the BoC policy to stipulate that BoC category must be stepped down to the lowest category for at least 24 hours prior to the pathway being stopped completely. • Develop a tool to standardise post-fall communication.

	resulted in a different understanding of events.	
Hospital-Acquired Pressure Injuries (8)	Please see pressure injury comment	

Medication/IV fluid

Description	Findings	Recommendations
Unexpected deterioration following cardiac surgery in ICU	Interruption to a medication infusion due to air in the infusion line to the central venous access device contributed to low blood pressure in an unstable patient.	• Change the vascular access and medication guidelines to include steps for the management of air in the line.

Oxygen/Gas/Vapour

Description	Findings	Recommendations
Insufficient oxygen supply for infant during flight transfer resulting in low blood oxygen levels	• Stabilisation before transport was well managed in a high-risk infant. • Multiple interacting equipment issues contributed to a sudden unexpected oxygen depletion. When combined with a lack of process for monitoring oxygen consumption rate during flight and ambulance transport the result was that staff had no visibility of a developing 'no oxygen' event. • Nitric oxide delivery system not ideal for constant accurate delivery in changing transport situations particularly with small infants • Air transport should not be undertaken with D size nitric oxide cylinder • Transport staff could benefit from more dedicated training time,	• Increase oxygen supply, update transport equipment with lower consumption equipment and add oxygen consumption meter. • Consider purchase of air transport purpose-designed nitric oxide delivery system. • Increase simulation training for transport nurses.

	including simulation and training together as a team.	

Review in progress

Description	Findings/Recommendations
Pericardial Tamponade	In progress
Wrong side diagnostic radiology procedure	In progress
Management of difficult airway	In progress
Fracture following restraint	In progress
Wrong patient underwent knee x-ray	In progress
Ovarian torsion	In progress
Vascular injury during laparoscopy	In progress
Emergency caesarean section for late presentation of a breech birth	In progress
Antenatal rhesus negative sensitisation in first pregnancy	In progress
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Maternal and neonatal death	In progress
Maternal death	In progress
Ovarian torsion	In progress
Post-natal sepsis resulting in maternal death	In progress
Stillbirth following emergency caesarean section delivery	In progress
Delay to imaging in a patient with ovarian torsion	In progress
Hyperkalaemia secondary to renal impairment	In progress
Post op sepsis	In progress
Neonatal death	In progress
Neonatal death	In progress
Cancer-related maternal death	In progress
Intrauterine death at 40+6 gestation	In progress
Placental abruption	In progress
Small bowel perforation from suprapubic catheter	In progress
Intrauterine death at 36 weeks gestation	In progress

Postoperative Sepsis	In progress

Falls

Any patient who falls while they are in hospital or who are attending a hospital clinic and sustains a serious head injury, a fracture, any other injury requiring extended intervention or dies due to their fall is considered to have had a serious harm fall at Auckland District Health Board.

24 patients had falls with serious harm in the year July 1 2019 to June 30 2020, compared with 29 in FY2018. The median age of the patients with a serious harm falls was 80.5 years (range 58 to 98 years). Most patients who fell were New Zealand or Other European (62.5%), while 12.5% were Māori, 8.3% were Pasifika and 12.5% were an Asian ethnicity. 1 patients (4%) suffered a new head injury after falling, while 21 patients (87.5%) suffered a fracture and 2 patients (8%) sustained other types of injury (e.g. wound dehiscence requiring operative repair and lumbar pain). The 21 patients sustained a variety of fractures which included upper and lower limbs, pelvic and hip fractures. 6 falls occurred in Reablement wards (25%), 11 medical wards (45%), 3 cardiovascular (12.5%), 2 Cancer & Blood (8%), 1 mental health (4%) and 1 at an outpatient appointment (4%).

There has been a reduction in the total number of patients with serious harm after a fall in ADHB facilities over time (29 in FY2018, 34 in FY2017, 34 in FY2016, 42 in FY2015, 57 in FY2014). ADHB has a reporting system for patient injuries which facilitates the clinical areas self-reporting serious harm falls. In the past, we have confirmed these reports with a coding query which identified serious harm falls that would otherwise have been missed. As we were identifying fewer falls each year by this method, this triangulation was not conducted this reporting year.

For each serious harm fall, a multidisciplinary team investigates and reports on their findings to a sub-committee of the Adverse Events Review Committee, an approach that focuses on understanding what systems failures may have contributed to a fall.

We have also been working to revise the way in which we assess and plan care for patients regarding falls. We have previously developed an assessment and care planning tool that uses the Health Quality & Safety Commission's Ask, Assess, Act strategy. This approach moved to assessing patient needs, rather than their risk, and then planning to address their individual needs. This tool was rolled out to the adult hospital in 2017 and further work has resulted in a new iteration being piloted in June 2019 and has now been rolled out hospital wide.

Pressure Injuries

Serious harm pressure injuries (Stage 3 or Stage 4 facility-acquired 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 harms through our patient injury reporting system and a coding query we run each month. 8 patients developed serious harm pressure injuries in 2019-2020 (a decrease from 13 in the previous year), 5 while in an Auckland DHB facility and 3 in the community under our care. The median age of patients with a serious harm pressure injury was 76 years (minimum 2 years, maximum 85 years). 6 of the pressure injuries (75%) occurred in NZ and Other European patients, 1 (12.5%) in Māori patients, 0 (0%) in Pasifika patients, and 0 (0%) in Asian patients. 1 pressure injury (12.5%) occurred in patients in surgical services, 1 (12.5%) in cardiovascular services, 1 (12.5%) in Child Health, 1 (12.5%) in Adult Medical and 4 (50%) in Adult Community Services.

Critically ill patients are especially vulnerable to pressure injuries. We investigate each serious harm pressure injury to identify systems issues that we can address as an organisation. We have revised our approach to pressure injuries, moving from a risk-based approach to a needs-based approach. We expect our investigations will help refine this change in approach to caring for vulnerable patients.

The paediatric patient suffered pressure injuries as a consequence of a plaster cast applied by our services. We now have an ACC-funded project underway to address issues regarding application of plaster casts. We also have another ACC-funded project to investigate the prevalence of pressure injuries in our adult community patients.

Although ADHB has long been internally monitoring our own performance on pressure injuries, we have also started contributing data to HQSC on pressure injury quality and safety markers (https://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/quality-and-safety-markers/qsms-april-june-2019/#[PRESSUREINJURY]). ADHB demonstrates a very low prevalence rate for hospital-acquired pressure injuries reflecting the sustained focus ADHB has had on reducing hospital-acquired pressure injuries since 2011.