Date: **21 November, 2012**
Subject: **Northland DHB Serious and Sentinel Events 2011/12 Report**

The process of investigating and reporting serious and sentinel events is about transparency and improving the quality and safety of our health services. Not all of these events are preventable but many involve errors that should not have happened and that resulted in serious injury and in some tragic cases death.

The Serious and Sentinel Events reports are a source of data to guide and focus our attempts to reduce avoidable harm from adverse healthcare practices.

Definitions

A **serious adverse event** is one that leads to significant additional treatment, but is not life threatening and has not resulted in major loss of function.

A **sentinel adverse event** is life threatening or has led to an unexpected death or major loss of function.

Institute for Healthcare Improvement (IHI) is an independent not-for-profit organisation based in Cambridge, Massachusetts. IHI responds to the interests of those committed to sustaining good health and improving health care delivery systems.

Northland DHB is committed to improving quality and safety for patients. During the past year the DHB has invested in quality improvement by creating two new quality and safety focused positions. These new roles provide education and support staff who are working on patient safety projects to ensure that their work is successfully introduced into practice.

More than forty Northland DHB staff recently attended the IHI international conference in Auckland on patient safety and a further ten key staff are involved in ongoing study with IHI to develop their skills in continuous improvement of safety and the quality of patient care.

Conclusion

The 2012 Health Quality and Safety Commission New Zealand report into serious and sentinel events during 2011 / 2012 demonstrates that Northland DHB patients were affected by less than the average number of such events. Our target is zero harm to all patients and to deliver high quality, safe healthcare to Northlanders.

2011 /2012 Northland DHB Serious and Sentinel Events Overview

Main Summary	Findings	Progress on Recommendations
Four elderly patients, two from our district hospitals and two from Whangarei hospital experienced falls. Two patients who fell broke a hip, One patient fractured their pelvis and One patient broke their arm. All four patients were 87 years or older.	On investigation all patients had had a falls risk assessment completed and were identified as having a high risk of falling. All patients had a falls management plan in place, this includes but is not limited to; ▪ the use of non-slip socks ▪ patients being placed in high visibility areas ▪ the use of sensor alarms ▪ the use of appropriate lighting ▪ risk cards displayed at the end of the patients bed ▪ and falls risk and strategies discussed with patients and their families. Two patients were also known to have dementia.	NDHB falls project group developed risk assessment tools and an investigation process was undertaken to establish why and how patient's falls were occurring. The risk assessment tool and management plan have been refined several times and continues to be upgraded with new developments and initiatives. To support the ongoing work Northland DHB has embarked on initiatives with the other Northern DHBs on a programme to reduce patient harm. This programme includes a project on reducing patient falls.
The patient was undergoing major surgery for cancer, and a major blood vessel was damaged. The patient was immediately transferred to a tertiary hospital but passed away three days later.	Before undertaking such major surgery a thorough assessment should take place to ensure that surgery can proceed safely. Recently the technique of laparoscopic assessment has been introduced elsewhere. This allows a lot of information to be collected through a very small surgical procedure.	A laparoscopic assessment protocol has been completed to provide further information to guide surgery. All major cases are reviewed by a multi surgeon, multi disciplinary team as part of the planning process prior to this type of surgery.

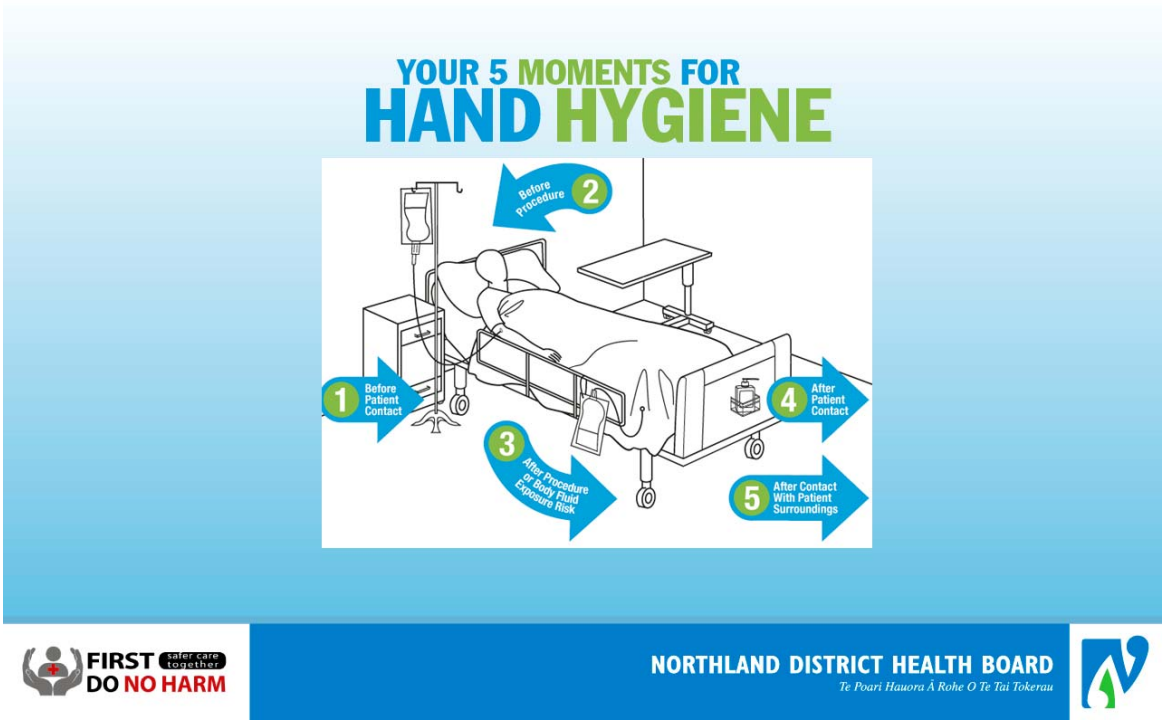
Main Summary	Findings	Progress on Recommendations
The patient with wide spread cancer was noted to be dehydrated on admission to the hospital. Whilst in the ward the patient was offered drinks, however no intravenous fluids were commenced. The patient's condition deteriorated over a weekend. The patient was transferred to intensive care, and passed away in the intensive care unit.	The family was involved in discussions about ongoing care of this patient. The patient was discussed at length by the medical team and it was determined that an improved medical handover may have resulted in improved treatment options for this patient.	Implementation of a 'junior medical handover project' to improve communication between doctors at change of shift. This project is still ongoing.
The patient undergoing varicose vein surgery suffered damage to a major vein during the operation. The patient was transferred to a tertiary hospital where the damaged blood vessel was repaired.	On investigation the arrangement of blood vessels in this patient was found to be unusual.	Surgical staff has been involved in teaching to ensure that they are aware of the possible variations in human anatomy.
The Patient had a hip replacement following a broken hip. The patient suffered a Deep Vein Thrombosis (DVT) and subsequently a pulmonary embolus and passed away after discharge from hospital.	The process for ensuring that patients receive appropriate preventive measures to minimise the risk of DVT was not sufficiently clear.	All departments now have clear guidelines which are implemented and the use of guidelines is audited.

Main Summary	**Findings**	**Progress on Recommendations**
The patient developed a wound infection following a hip joint replacement. This resulted in the patient having further minor surgery to clean the wound.	It was found that conflicting discharge information had been given to the patient regarding what to do if they suspected an infection.	The patient information booklet for joint replacement has been revised and updated with clear concise information about wound care. District and community nurses are now auditing wound management processes.
The patient presented to the emergency department unwell but was sent home. Subsequently the patient was admitted with a diagnosis of Meningitis but did not respond to treatment and passed away. The case was subjected to independent external review.	External reviews revealed individual performance and system issues which combined to make the patients care substandard.	Staffing levels in the emergency department and intensive care unit have increased. The emergency department has increased its number of beds so that patients can be seen more quickly. Regular teaching sessions and supervision are provided for medical staff in the emergency department.
The patient fell whilst at home resulting in a broken hip. The patient's nutritional status was poor. The patient was admitted and had surgery to repair the broken hip. Subsequently the patient developed pressure injuries (sacrum/heel). The pressure injuries required some minor surgery.	On investigation the relevant assessments and interventions for the prevention of pressure injury were not carried at the time the patient was admitted. This therefore did not follow routine hospital protocol. Investigation is still in progress.	To support the ongoing work listed above Northland DHB has embarked on initiatives with the Northern DHBs on a programme to reduce patient harm. This programme includes a project on reducing pressure injuries.

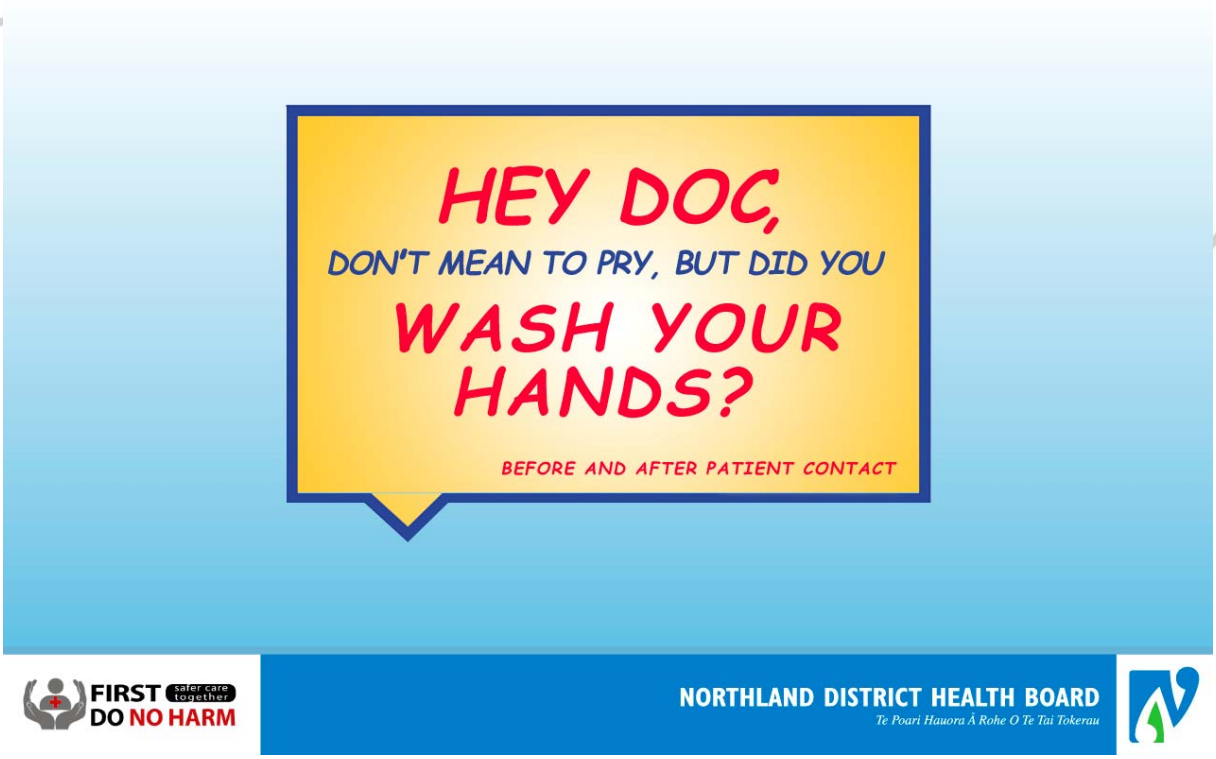
Some of the ongoing patient safety projects at Northland District Health Board

Hand Hygiene

A focus on hand washing has increase staff hand washing compliance at Whangarei Hospital. A recent survey shows that 77% of staff complied with the hand washing protocol and when compared nationally, Northland had the highest percentage of staff washing their hands. Hand hygiene screensavers are promoted on the Northland DHB computer network to continue to raise awareness of the importance of patient safety and quality of care.



FIRST DO NO HARM safer care together
NORTHLAND DISTRICT HEALTH BOARD
Te Poari Hauora Ā Rohe O Te Tai Tokerau



Medication Safety

We aim to reduce the number of people in Northland harmed by medication errors in our hospitals, age-related residential care facilities and primary care. Dedicated project work is currently being undertaken to improve our processes.

Health Care Associated Infections

The national central line-associated bacteraemia (CLAB) collaborative is underway and Northland DHB is participating to ensure we adhere to best practice that reduces risks to our patients.

Global Trigger Tools

The Global Trigger Tool is an internationally recognised system for identifying adverse events causing harm to patients. The trigger tool helps to identify the level of harm occurring in our current system. The trigger tool can also assist in providing useful measures to indicate if the changes in care we undertake result in improving patient safety.

Acute Care Reform Programme

This 18 month programme had a focus on improving acute patent flow throughout the organisation which enabled patients in the emergency department to be seen and treated and if necessary be admitted in a timelier manner. The emergency department now sees, treats and/or admits 95% of all patients within six hours.

Hospital to Home - H2H

This project focused on the high readmission rate of patients with heart failure within 28 days of their discharge from hospital. A new pathway was developed and trailed for six months with very positive results and has seen less patients readmitted within the 28 day period.

Clinical Handover

Northland DHB is leading a project aimed at reducing harm caused to patients by ineffective clinical handover. An agreed handover process will be in place by the end of 2012 that will apply to shift changes for all medical, surgical and orthopaedic house officers. The aim is to reduce preventable patient harm, caused by communication failures during clinical handover, by 20 % within two years.

Quality Accounts

Next year will see the introduction of Quality Accounts. This is being lead by Health Quality and Safety Commission NZ. The rationale for quality accounts development stems from a recognition of the importance of quality in health care.

Northland will develop up to six quality accounts that will be meaningful and relevant and demonstrate continuous quality improvement. The accounts will be able to be viewed on Northland DHB web site.

The Productive Operating Theatre

The Productive Operating Theatre builds on learning from the wider Productive Series and best practice from within healthcare across the world. This exciting programme of work gives the frontline staff the knowledge and practical tools they need to transform their theatre across the four key aims of the programme:

- Patients' experience and outcomes
- Safety and reliability of care
- Team performance and staff wellbeing
- Value and efficiency

What is *First, Do No Harm?*

First, Do No Harm (introduced during 2011) is the Northern Region's campaign to minimise preventable harm to patients during clinical care. The Northern Region incorporates Northland, Waitemata, Auckland and Counties Manukau district health boards.

Reduction of harm from falls is a major goal of the *First, Do No Harm* patient safety campaign and the Northern Region's four district health boards are working to assist in improvement efforts aimed at achieving this across the hospital and age-related residential care (ARRC) sectors.

How is the Northern Region working to reduce harm from falls?

At Whangarei Hospital there is extra attention to discharge planning and making sure that the patient's home environment is safe and that their footwear provides good support when mobilising.

Falls monitors have been lent to residential care facilities and to patients to take home for a short trial to establish whether this assists with patients who may have impulsive tendencies. We do this because we want to make sure patients, once discharged, are moving into environments that meet any special needs they may have to reduce their risk of falling.

The staffing model in Ward 15 has also been changed as a result of the increased attention on preventing falls. The group observed that risk of a fall was higher at 6am, when patients were waking and wanting to get up to the toilet. A staff member has been rostered to start at 6am to assist night staff by attending to patients' needs in a timely manner.

Early work undertaken in the Northern Region has led to agreed definitions of falls categories, enabling standardised approaches to falls reduction. The campaign recognises there is no single magic bullet for falls prevention but a range of interventions can have a significant impact over time.

Northern Region interventions can be grouped in following broad categories:

- Making patients and rest home carers more aware about how to reduce the risk of falling
- Equipment interventions, such as non-slip socks and hip-protector pads
- Review of falls incidents, to identify opportunities for improvement
- Review of medications to reduce the risk of falling

- High visibility triggers to alert staff or carers to people who have had a fall. These include brightly coloured stickers to alert staff to patients or older people who have had a fall
- Implementation of new processes around toileting, for example changing staff shift times so that there is an appropriate level of cover early in the morning when many patients or rest home residents are getting up
- The introduction of a falls risk assessment tool that is easy for staff to use and ensures consistency of application

Several initiatives have been trialed and tested and these are being widely adopted as individual facilities use the Northern Region's formal 'all teach, all learn' approach and methodology to determine which will lead to improvements for them.

How soon can we expect to see a reduction in harm from falls?

As a result of more robust measurement processes adopted by programmes such as *First, Do No Harm*, total fall rate numbers per organisation or facility may initially appear to increase. The first step in prevention is to get good measurement and international evidence suggests there is a lead-in time before improvements can be quantified. Only then can solutions be implemented. Furthermore it takes time for the solutions to become embedded in normal practice and to see the outcome improve.

Has there been a reduction in the number of falls resulting in major harm in the Northern Region?

For many ARRC facilities that have recently joined the *First, Do No Harm* patient safety programme it is too early to provide robust measurement around the impact of interventions. Pockets of information say this is occurring on an individual facility basis. Similarly it is too early to draw Region-wide conclusions about success in our hospitals. As with ARRC facilities, there have been successes within various wards. What is very encouraging is that organisations that were the earliest adopters of this formal model of improvement are seeing significant improvement.

Will we ever be able to completely prevent falls from occurring in our hospital and ARRC facilities?

The only way to ensure people do not fall is to totally restrain them. Clearly this is not a solution. There are health benefits in being mobile and we also wish to protect the rights of patients and older people to independence. It will be impossible to avoid falls altogether but as a Region we can introduce interventions that will both reduce the rate of falls and the seriousness of harm from falls.

-ENDS-

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