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OFFICE OF SAFETY AND QUALITY IN HEALTH CARE

SNIPtS Sharing News in Patient Safety

New Release - The Second Sentinel Event Report

The 2nd WA Sentinel Event Report: *Delivering Safer Health Care in Western Australia* was released on the 28th of September 2006.

The report provides information on the number of sentinel events that were reported during the 2005/2006 financial year, contributing factors to sentinel events, and strategies that are/have been implemented to reduce the risk of similar events reoccurring in the future.

The Sentinel Event Program aims to improve patient safety by reducing the number of serious adverse events. Sentinel events are reported to the Chief Medical Officer, and an immediate, thorough investigation (i.e. Root Cause Analysis) is conducted by the reporting hospital or health service. Recommendations are then implemented to ensure that similar events do not happen again in similar situations.

Since October 2003, when the sentinel event program began, a total of 138 events were reported. Fourteen of these were considered to be unpreventable, leaving 124 eligible for inclusion in the program. A total of 42 sentinel events have been reported during 2005/2006.

The 2005/2006 financial year demonstrated a **clear reduction in the number of wrong procedures or procedures carried out on the wrong patient or body part**. There were four events of this type reported during the 2005/2006 financial year compared to 10 events reported in 2004/2005. This impressive reduction is due to the vigilance of staff within WA Health, and efforts to comply with the "Correct Patient, Correct Site, Correct Procedure" guidelines.

There was also a **reduction in the number of retained instruments or foreign material** during the 2005/2006 financial year. There was only one event of this type reported during the 2005/2006 financial year, compared to six events reported during 2004/2005. This remarkable decline is also due to the effort of health care professionals, and the improvements that have been made to policies and procedures.

There was an increase in the number of events that could not be classified into the nationally agreed categories for sentinel events. This increase is likely to reflect heightened awareness and reporting of sentinel events, rather than increased occurrence of these events.

Decreases in the number of sentinel events associated with hospital process issues, complications of anaesthetic management and emergency / resuscitation management were observed. There were increases in the number of falls resulting in death, and mental health incidents.

The 2nd Sentinel Event report is available online and can be accessed at: www.health.wa.gov.au/publications

Diary Dates

Incident Reporting and Management Seminar

The Office of Safety and Quality are pleased to present the 3rd Incident Reporting and Management Seminar.

Date: **2nd March 2007** (date changed)

Time: 8:30-3:00

Venue: Theatrette, Amenities Building, 189 Royal Street, East Perth.

Guest Speaker:

The guest speaker is Dr John Ovretveit, Director of Research at the Medical Management Centre, Karolinska Institute, Stockholm. He is also Professor of Health Policy and Management at the Nordic School of Public Health, Gothenberg, Sweden and Betgen University Medical School, Norway.

Patient Safety Award Nominations

Nominate your workmate for recognition of their contribution to improving the quality and safety of health care! Nomination forms are available from: www.health.wa.gov.au/safetyandquality

Call for Abstracts

Call for Abstracts is now open. Abstracts may be submitted for presentation as a paper or case study. Topics include any initiative arising from local analysis of incident data and may include valuable interventions, local sentinel events, human factors, closing the feedback loop, or lessons learned.

Abstracts must:

- include authors name, organisation, position and full contact details;
- include a title, objectives, methods, results and summary/conclusions; and
- be 300 words or less.

Abstracts for presentations will remain open until 10th January, 2007.

Abstracts that were submitted in June will be included for consideration.

Please forward abstracts to: Ngaere.Stewart@health.wa.gov.au

For more information visit: www.health.wa.gov.au/safetyandquality

We NEED your lessons! If there are issues or actions that other health professionals should know about, please share it in SNIPtS! Please contact Ngaere Stewart with your lesson on 9222 2238 or email: Ngaere.Stewart@health.wa.gov.au

Government of Western Australia

Prophylaxis for Venous Thrombo-Embolism

Venous thromboembolism (VTE) is a common cause of death and commonly reviewed in Coronial and Quality Improvement settings. VTE refers to the formation of blood clot/s in the veins which can travel and obstruct blood flow in other parts of the body.

Diagnosis of VTE can be difficult. This was demonstrated in the McKay inquest which emphasises the importance of diagnostic pathways linked to risk assessment and screening in the clinical setting (McKay Finding Case No. 11/05). VTE is also a major cause of in-hospital mortality in surgical patients.

Every year, surgical cases with VTE are referred to the Coroner. Many of these cases have increased risk of VTE including obesity, varicose veins, previous VTE, thrombophilias, thrombotic states such as malignancy infection and heart failure, hormone therapy, pregnancy, immobility, trauma and advanced age. Following referral to the Coroner, recent cases have involved an inquiry into VTE risk assessment and prophylaxis for VTE. An accurate, up to date medical record, which includes a risk assessment for VTE and a risk benefit decision about prophylaxis for VTE, is usually adequate to demonstrate a high standard of medical care.

The WA Audit of Surgical Mortality (WAASM) has also suggested VTE as an area for review. The 2006 WAASM report found that the proportion or reviewed patients who receive DVT prophylaxis was inappropriate. Deficiencies of care were identified where no DVT prophylaxis existed (Royal Australasian College of Surgeons, 2006).

An evidence based review of VTE prophylaxis advises that all patients admitted to hospital with major trauma, acute medical illness, or undergoing surgery should be individually assessed for their risks of VTE (Royal College of Physicians, 2002).

Prophylaxis should then be administered based on a balance of efficacy, risk and patient preference. Level one evidence supports the use of mechanical methods such as graduated compressive stockings and intermittent pneumatic compression. Low dose heparin is also supported by level one evidence. The importance of monitoring patients on heparin for thrombocytopenia is supported by level 2 evidence. Early mobilisation and adequate hydration are supported by level 3 and 4 evidence.

Guidelines on the prevention of VTE have been developed and updated by the Australia and New Zealand Working Party (2005) on the Management and Prevention of VTE. This publication emphasises the need for a clinical risk assessment, particularly in relation to medical illness. A pharmacological update introduces the pentasaccharide fondaparinux as an agent, which is as effective as the heparins for the prevention of VTE in orthopaedic cases.

The Working Party's definition of best practice includes the routine use of VTE prophylaxis implemented with clinical guidelines, pathways, staff orientation and audit incorporating individual risk assessment, an accurate and complete medical record, and liason with care in the community. Below is a risk assessment matrix reproduced from this publication.

References:

Australia and New Zealand Working Party (2005). Prevention of Venous Thromboembolism-Best Guidelines for Australia and New Zealand. 3rd Edition. Health Education and Management Innovations. (Contact: HemiAustralia@aol.com for copies of this publication).

McKay Finding Case No 11/05, Coroners Court of Australia. Online: http://www.coronerscourt.wa.gov.au

Royal Australasian College of Surgeons: WAASM Annual Report (2006). WA Audit of Surgical Mortality Management Committee. University of Western Australia.

Royal College of Physicians (2002). Prophylaxis for Venous Thromboembolism. Scottish Intercollegiate Guidelines Network.

Conclusion

- All patients should undergo individualised risk assessment so a risk/benefit decision about prophylaxis for VTE can be made.
- Evidence-based methodology can be used to aid patients and clinicians in their decision about VTE prophylaxis.
- Best practice for implementing the routine use of VTE prophylaxis needs a hospital-wide approach, which includes clinical guidelines, pathways, staff education and audit.
- An accurate comprehensive contemporaneous medical record is usually adequate to demonstrate a high standard of medical care.

Prevention of VTE

Risk Assessment Matrix

Category	Medical Patients	VTE Prophylaxis	Surgical Patients	VTE Prophylaxis
High	• Age>60 years; • Ischaemic stroke; • Decompensated cardiac failure; • Active cancer; • Acute or chronic lung disease; • Acute or chronic in-	• Low dose unfractionated heparin or low molecular weight heparin; OR • Graduated compression stocking and/or intermittent pneumatic compression if heparin contraindicated	• Orthopaedic surgery of pelvis, hip or lower limb; • Major surgery >60 years; • Major surgery age 40-60 years with cancer or history of VTE; • Other risk factors	• Low molecular weight heparin or fondaparinux (orthopaedic cases only) AND • Graduated compression stockings; and/or intermittent pneumatic compression
Moderate			• Major surgery age 40-60 years without additional risk factors; • Minor surgery > 60 years; • Minor surgery age 40-60 years with history of VTE or on oestrogen therapy or with other risk factors	• Low dose unfractionated heparin or low molecular weight heparin
Low			• Major surgery age 16-40 years with no other risk factors; • Minor surgery age 16-40 years with no other risk factors	• Consider graduated compression stockings

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Analgesic skin patches

Until recently, fentanyl patches have only been available on the Pharmaceutical Benefits Scheme for chronic severe cancer pain. From August 2006, the listing was expanded to include chronic non-cancer pain. The WA Medication Safety Group wish to draw your attention to a US Food and Drug Administration Advisory announcement following reports of deaths and serious side-effects in patients using fentanyl patches. The following information has been adapted from an alert from the SAFER Medicines Group of NSW Therapeutic Advisory Group (2006).

- Fentanyl skin patches are very strong narcotic (opioid) painkillers that may cause death from overdose. The fentanyl skin patch should always be prescribed at the lowest dose needed for pain relief.
- Fentanyl skin patches should not be used to treat short term pain, pain that is not constant, or for pain after an operation. They should only be used by patients who are already taking another narcotic painkiller (i.e. patients who are opioid tolerant), and who have chronic pain that is not well controlled with shorter-acting painkillers.
- Patients who are using the fentanyl skin patch and their caregivers should be told about safe use of the patch and should be directed to follow the product instructions exactly. Directions for use are also provided in the Consumer Medicine Information leaflet.
- Patients who are using the fentanyl skin patch, and their caregivers should be told about safe methods of storage and disposal of used, unneeded or defective patches. Health care professionals who prescribe the fentanyl skin patch and patients who use the patch, and their caregivers should be aware of the signs of fentanyl overdose. Signs of fentanyl overdose include trouble breathing or shallow breathing, tiredness, extreme sleepiness or sedation, inability to think, talk or walk normally, feeling faint, dizzy or confused. If these signs occur, patients or caregivers should seek medical attention immediately.
- Patients using fentanyl skin patches may have a sudden and possibly dangerous rise in their body level of fentanyl or have a stronger effect from fentanyl if they use other medicines that affect brain function or medicines that affect how fentanyl is broken down in the body; drink alcohol; or have an increase in body temperature or are exposed to heat. For more information see the product information.

References:

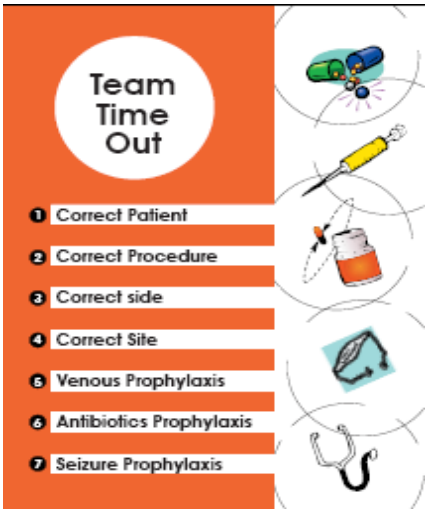
Pharmaceuticals Benefits Scheme listing (2006) available online from: www.npsradar.org.au

Food and Drug Administration (2005). Safety warnings regarding use of fentanyl transdermal (skin) patches. Available online from www.fda.gov

NSW Therapeutic Advisory Group (2006). Alert: Analgesic skin patches. Available online from: www.nps.org.au

Would you like SNIPtS to be emailed to you each quarter? Contact Ngaere Stewart (9222 2238) to have your name put on the electronic distribution list. SNIPtS is also available on the OSHQ website! If you have missed an edition, you can download it from: www.health.wa.gov.au/safetyandquality

Signage at Sir Charles Gairdner Hospital



This Team Time Out sign (left) is prominently displayed in the operating theatres at Sir Charles Gairdner Hospital. This is an excellent hospital-based initiative and reflects the commitment of staff at Sir Charles Gairdner Hospital to improving patient safety.

What is *your* hospital doing to improve patient safety?

Diary Dates

Error in Radiology Conference

Coming in 2007

Topics:

- Error in radiation
- Risk reduction
- Radiation risk
- Common radiological interpretation errors
- Medico-legal issues
- Role extension
- Role substitution
- Consumer information

Keynote speaker: Dr Fitzgerald, UK

When : March 31 - April 1 2007

Where: Bruce Hunt Lecture Theatre, Royal Perth Hospital, Wellington Street, Perth

Contact:
Liz.Wylie@health.wa.gov.au

Did you know?

A **sentinel event** is a rare and preventable medical error that results in a permanent disability or death (AIMS level 7 or 8).

In WA Health, the symbol for a sentinel event is the lighthouse. Lighthouses have been used for centuries to help guide ships at sea. The beacon warns approaching ships that they are approaching hazardous areas.

Similarly, reported sentinel events can help us alert health care professionals to any potential patient safety risks, and provide opportunity to adopt safeguards against commonly occurring human errors.

Find out more: www.health.wa.gov.au/safetyandquality/sentinel/index.cfm

Adverse events in Victorian admissions for elective surgery

An Australian study was recently conducted to determine whether there were any patterns associated with the occurrence of adverse events, and to identify whether there were any elective procedures that were 'prone' to adverse events taking place. An adverse event was defined as: 'an incident in which unintended harm resulted to a person receiving health care' and the 'condition was not present at the start of [the] episode of care' (p.335).

The data used in this study was the Victorian Admitted Episodes Dataset (VAED). In Victoria, all public and private hospitals are required to report a minimum admitted patient data set on a monthly basis to VAED.

Obstetric and same-day elective procedures were excluded from the sample, leaving 177,553 multi-day adult elective surgical cases. Results indicated that 15.5% of admissions for elective procedures had at least one complication of care. The rate increased with the age of the patient.

The complication rate was higher for open prostatectomies (30.4%) compared to laparoscopic cholecystectomies and transurethral prostatectomies (13.6%). Open approaches to cholecystectomies also demonstrated a higher rate of complications (26.5%) compared to laparoscopic cholecystectomy (9.7%). The authors suggest that open approaches to surgery may be a predisposing risk factor to complications.

High rates of adverse events occurred in coronary artery bypass surgery (67.2 % of procedures had complications), colectomy (51.6%), hip arthroplasty (35.3%), knee arthroplasty (35.3%) and hysterectomy (19.8%). A haemorrhage and haematoma that complicated the procedure was found to be the most frequent complication identified in the study (9.6% of episodes). Other complications included atrial fibrillation and flutter (4.5% of episodes), nausea and vomiting (4.4%), unspecified hypotension (4.1%) and postoperative infection (3.6%).

The authors suggest that patient safety programs need to focus on arrhythmia rates, haemorrhages complicating procedures, accidental perforation or laceration, and other cardiac and respiratory events such as pulmonary collapse.

Reference:

Moje, C., Jackson, T. & McNair (2006). Adverse Events in Victorian admissions for elective surgery. *Australian Health Review, 30*(3), 333-343.

Snipts of data

Western Australia collects similar patient data using the Hospital Morbidity Data System (HDMS). Using the same denominator as the study above (adult, multi-day, non-obstetric, elective episodes of care in a public hospital), it was revealed that:

During 2005/2006 financial year, there were 2216 coronary artery bypass procedures carried out. Of these:

- 48 patients required control of postoperative intrathoracic bleeding (2%); and
- Of these, there were no patient deaths recorded.

Snipts of data

Healthcare Infection Surveillance Western Australia reported that:

- Following hip arthroplasty, the rate of surgical site infection was 1.67% (less than 2 out of every 100 patients subsequently developed an infection).
- Following knee arthroplasty, the rate of surgical site infection was 1.92%. (2 out of every 100 patients developed an surgical site infection).

Due to the small sample size, these results should be interpreted with caution.

Did you know?

- Data collected on the AIMS form is completely **de-identified** before being entered into the database.
- AIMS Incident reporting is completely **voluntary,** but strongly **encouraged!**
- Over 100,000 incidents have been reported and entered into the database to date.
- AIMS data is analysed at a state-wide level to identify trends and potential risk areas that need intervention. Reports that show these trends are distributed to health services quarterly and annually.
- You can request a copy of the AIMS report or have your name added to the distribution list by emailing ngaere.stewart@health.wa.gov.au

Non-Deflating Catheter Malfunction

An incident occurred recently in a Western Australian hospital involving a faulty indwelling catheter. The catheter balloon did not deflate properly and could not be removed. A further procedure was required to ensure safe removal of the device. Other patients also needed surgical review to make sure that the device had been removed safely. This resulted in additional stress for patients and their families, and a delayed discharge for these patients.

The following action was implemented at this site:

- appropriate department/s were advised of the malfunction,
- faulty devices were immediately removed from stock;
- the device was removed from the hospital by completing a product alert; and
- the manufacturer of the product was advised of the malfunction.

Analysis of state-wide Australian Incident Management System (AIMS) data reveals that there have been several incidents involving catheter balloons that did not deflate properly.

The reason that the faulty device was identified so quickly and removed from use was due to staff vigilance in reporting the incidents to AIMS. The commitment of staff to reporting incidents and improving patient care is highly commended.

Figure 1. Picture of a urinary catheter