Sharpening the image of nursing – Beverly Morris (NP, San Diego USA)  
Beverly discussed the diversity of the nursing workforce and the 5 generations spanning 20-75+ years, each bringing rich and diverse experiences to the nursing profession. For example in some countries nurses receive a life time licence and never have a review process, in other countries nursing students are not allowed to speak to their professors. There are many mutual connections globally and yet many differences. Beverly spoke of the special skills of the orthopaedic nurse and how we are a family within a family. There are 206 bones – but only one heart. The bones being the diverse fields that nurses find themselves in, the heart being “nursing”

Dame Agnes Hunt – the founder of Orthopaedic Nursing stated that “we are ordinary people doing extraordinary things”. Yet we need to preserve the core values. A short DVD was played with the story of Dominique who had her lower limb crushed in a pedestrian v car. Through out the 9 weeks of her trauma care she said that nurses brought calm to the chaos. Orthopaedic nurses had been at the forefront of the limb salvaging work that had been perfected by Dr Paul Girard.

Keeping current is critical to continuing education. We have a well defined body of knowledge and specialised skills unique to the role. There is a strong identity with the role itself. Beverly was passionate about keeping orthopaedic patients in orthopaedics – which is something that we here at WDHB also strive for.
At the end of her presentation she asked for 5 volunteers from the audience to work personally with 5 individual experts from universities and hospitals in the USA on various topics ranging from Pressure Area reduction to surgical site infection. These 5 nurses will now work for 2 years teleconferencing, email and Skype with these international expert nurses and will present back to the 2015 conference.

Change is good – you go first!!!!!

Orthopaedic Nursing in the 2010s – Paul McLiesh (University of Adelaide)

Paul presented his thesis on orthopaedic nursing in the 2010s. I had previously been a part of his research when we had a 2 hour skype with questions relating to the experiences of being an orthopaedic nurse. The common themes that came out of this were shared beliefs, values, norms and practices. Orthopaedic nursing has grown and changed over the years as a dynamic specialty, reacting to changing demands, technology and research. He described skills that were being lost eg traction – with improvements in surgical techniques; traction is limited in its application. He encouraged the nurses present to get published and to this end, the ANZONA is starting up a support group for nurses who are novices at this. Professional groups like ANZONA, NAON, NZONA actively promote orthopaedics as a specialty, improving engagement and strategic planning within the profession.
Discussion on post graduate study in specialty nursing practice and succession planning for specialty posts.

Change is inevitable – we can choose how we react to it....
Nurse Practitioners in the Orthopaedic Setting - Anita Taylor (#NOF NP - Royal Adelaide Hospital)

1986 Post career structure debate around nursing practice & NP begins
1998 Inaugural ‘legal & policy’ NP framework developed in NSW
2000 First NP authorised in NSW
2005 First Orthopaedic Nurse Practitioner (ONP) authorised
8 ONP’s currently

Fragility Fracture
Arthroplasty
Trauma (includes paediatric)
Fracture (non-surgical) in Out Patient Setting (includes paediatric)
Rehabilitation (Rural)
Ortho-geriatric Trauma
Surgical Orthopaedic/Spinal/Neurology
Generalist Orthopaedic (includes paediatric)

Research question - What is the experience and effectiveness of nurse practitioners in orthopaedic settings?
Systematic Review: ONP Specific Care

Primary Outcomes
–Patient encounter
–Patient satisfaction
–Process of care
–Complications
–Nurse-sensitive indicators

Secondary Outcomes
–Length of Stay
–ONP satisfaction
–Specialised knowledge/skill development
–Cost/benefit & “productivity”
–‘Stakeholder’ satisfaction

Anita discussed the challenges of the role with concerns raised over deskilling ward based nurses. She has found that as an ONP she can actually assist in increasing the knowledge and skills of the ward nurses. NPs are change agents who can be the patients connection – connectedness. Professionally she is involved in policy frameworks, politics, economy of care and workforce – with advanced nursing roles.

Journey to the Finish Line: – fast track joint replacements in the Queen Elizabeth Hospital - Lesley Thomas ONP Arthroplasty

As I listened to Lesley give this presentation I was thinking of the way in which we at WDHB already do much of this work. Since returning from this conference I have been asked to join the group looking at early recovery after surgery (ERAS) for arthroplasty and #NOF. This is most timely.
2009 project “The Stranded Patient #NOF” this project has now been applied to TKJR. With a 10% annual growth in demand and a finite health budget – need to work smarter. Lean Thinking project. Remove waste, add value.
The fast track looked at patient education, standardisation, and continuity of care, audit and feedback.
Areas that were looked at included
Pre-op education
Pre-admit nurse – patient information booklet and DVD
Theatre
Ward – Posters on the ward walls with daily exercises and goals, pain team involvement, post op guidelines.
Discharge. Discharge by day 4 with day 5 being acceptable. Information given to patients early, goals met, safe for discharge.

Patient satisfaction survey.

LESSONS LEARNT
Having an executive champion to facilitate bureaucratic aspects of the project is essential.
Need to have a representative from all major stakeholders on the working party - breaks down the barriers to creating an integrated pathway.

Local Infiltration Analgesia reduces LOS and Complications – Dr David Mitchell
Director of Orthopaedics Ballarat base Hospital Vic.

Again – this presentation has now come to light as the way forward as one of the main foci on reducing length of stay and getting patients home as early as day 2 post TKJR.
1993 – John Repicci used local infiltration into the knee during uni-compartmental knee replacement surgery.
Between 2008 and 2012 length of stay has been reduced from 8-2 days.
Injections of Ropivicaine intra-operatively – later that evening and the next day.
Catheter left in situ with a filter and top ups done.
No tourniquet during surgery. No drain. No IDC. 2 hours post op up and walking.
Removes need for epidurals/PCA.
Icepacks used instead of TEDs
Venisan stockings used instead of TEDs
No IV after 8 hours.
No narcotics as this reduces the nausea and light headedness
“Are you comfortable?” Rather than “How is your pain?” – better way of questioning rather than focussing on pain
Ropivicaine is safe – serum naropin levels can be done if concerned with renal function. Ketoralac used as part of NSAID mix – pain patch can be used.
Reduced complications – VTE, confusion, haematoma, infection, chest, UTI, pressure sores, chronic pain – all reduced.

Since returning from this conference I have attended the MoH meeting in Wellington for Learning Session ERAS Orthopaedics. This was part of the discussion lead by the anaesthetist on the expert panel. An advancement on this is not leaving the catheter insitu but ensuring that adequate infiltration is done in theatre and that non opioid analgesia is maintained post operatively.
Peter Davis is an inspiration to me. I first met him when I was a new NE and attended the ANZONA conference in Rotorua. He is an established author of Orthopaedic Texts as well as a passionate presenter and supporter of NZONA and ANZONA. His passion for orthopaedics comes through in his presentations and after listening to this session on getting published, I think there was a sea change in the room for nurses for whom writing for publication was a fearful thought.

“Enthusiasm and persistence can make an average person superior, indifference and lethargy can make a superior person average”

The most frequently quoted reason for not publishing was uncertainty about research methodology (66%), followed by a general lack of confidence (50%) and lack of time (45%)

The shortfall in nursing research cannot be attributed to negative views of nurses rather it is the lack of publication of their findings.

So why bother?
Everyone has something interesting to say
Other people really do want to read what you have to say
Your lessons learned need to be shared for the benefit of colleagues and patients
It is ‘healthy’ to have your ideas and work reviewed and encouraged by others
To stimulate debate, discussion and development
To develop communication skills
To establish networks
To further your CV/career
Because it makes you feel good!
NOT because it will make you rich or famous!

Peter quoted Driscoll & Aquilina 2011 when Writing for publication – a practical six step approach
1. Read, read and read to write, write and write
2. Plan what you are going to say
3. Select a journal
4. Seek support/Contact the editorial team
5. Use the journal as a template for structure
6. Prepare the manuscript

Peter gave these suggestions for when one is reading:
Reading is a good habit for any nurse
Read what you are interested in – but relates to your role and your patients
Read to understand the material and form an opinion on it
Read to contribute to your own ideas
Read widely and deeply
Notice the writing style of the paper
Notice how the author uses grammar and vocabulary
Notice how the author uses references to the work of others
Look at how the paper is structured
Make a note of what you read
What shall I write about? Peter made these suggestions...
What interests or excites you?
What do you have a ‘problem’ with?
What bothers you?
What would you benefit from knowing more about?
What are you doing or thinking that others might be interested in?

He gave various options for the types of journal offerings that are available – from shorter offerings like letters to the editor, website reviews, news and conference reports to longer offerings such as literature reviews, chapters in books or even books themselves.

He made suggestions for working alone or in a team, mind mapping and finally choosing the journal that you will write the piece for. He recommended to get to know the journal and seek support –

A colleague/someone in your team or your hospital who has published before
Someone at your university with experience of publishing
Someone somewhere who has written on your topic before
The editor/editorial team

Read the journal as a template for your writing and also the guidelines for authors from the journal. Notes on preparing the manuscript were given. Peter noted that A strong manuscript has a clear, useful, and exciting message is presented and constructed in a logical manner and reviewers and editors can grasp the significance easily. Tips on the actual manuscript writing were given and the process of how to submit your manuscript.

Acute Nursing Care of the Adult with Fragility Hip Fracture: the power of international collaboration. – Anita Taylor and Ami Hommell, International collaborators and ONPs. – (Royal Adelaide)

The guidelines for best practice started development at the International Collaboration of Orthopaedic Nurses in Dublin. 
It Focused on Patient Problems Directly Influenced by Bedside Nursing Care ~Evidence Based
~Peer Reviewed
~Internationally Supported
The goals of the guidelines were to - Inform Nurses, Increase sensitivity toward needs of older adults, Enhance care for our patients and our family and Improve outcomes
The reason that the guidelines were developed were many – including the facts that Older adults with fragility hip fracture represent a growing percentage of orthopaedic patients worldwide
Fragility fractures are associated with significant health and social consequences. Age related changes, the stress of the fracture, hospitalization and co-morbidities predispose these patients to serious problems
The core issues that were identified were Pain Management, Pressure Ulcers, and Delirium, Fluid balance, Nutrition & Elimination and Functional decline. The guidelines were briefly discussed with reference to each section.
It is good to know that WDHB has recently employed a nurse for Fragility Hip Fractures. I have met with this nurse and will be sending her the information from this session.

Protocols – their role in changing practice - Cheryl Klmer ONP (Flinders Medical Centre)

“Protocols/Guidelines help to make the best available evidence easily accessible to the clinical frontline, standardise practice and reduce unnecessary variation and document the acceptable standard which can then be measured”

Cheryl discussed the role of guidelines in protocols
A guideline can contribute to the development of protocols
A ‘good’ guideline will be based on a systematic review using an framework such as that developed by the Cochrane Collaboration*
A systematic review by definition considers all the research papers published (and sometimes unpublished) according to a pre-defined protocol

Protocols impact on practice

_Ideally_
Every protocol gets audited after one year, changes made as a result of the audit findings then re-audited

_Reality_
Some protocols have never been audited
Some protocols have been audited but no changes made (despite the findings indicating areas for change)
Some audits have been done on ‘custom and practice’ in the absence of protocols
Medical and nursing students were used to audit the protocols at Flinders. Their tasks
“The systematic and critical analysis of the quality of clinical care”
Students need to audit practice against a published standard describing required quality of care
“The purpose is to teach students the basic principles of quality improvement, application of simple measurement and auditing tools and analysis of simple data”
This was seen as a win win situation with the students and the Orthopaedic department benefitting.
Actions as a result of the audits
1. Review recommendations, assignment and evidence presented by student
2. One page summary by member of department
3. Feedback to student
4. Revised protocol circulated
5. Signed off by Head trauma unit
6. Sent to clinical governance
7. Intranet and used
8. Next students – aware previous student recommendations, results and protocol changes

There was then an audit of the auditing process with a view to ongoing improvement and how to make it more useful for student learning and the department. Cheryl summarised by saying that
Protocols are an important part of our overarching framework of clinical Improvement and using students was a great way to involve underutilised resource
So you thought developing a procedure was going to be easy? Larissa Bailey. 
(Flinders medical Centre)

Larissa presented on Flinders Medical Centres method of reviewing developing their nursing procedures. It was interesting to note that she was employed to review all the departments’ procedures – researching best practice and guidelines. She was looking for gaps in practice, changes to practice and amendments that needed to be made. She noted that there can be implications on resources when procedures are updated aligned with best practice. The focus must be on patient safety and quality of care. She looked at whether education would be needed as well as new equipment.

The process appeared to be along the lines of how WDHB reviews their procedures DNF, Subject matter Expert involvement, review of literature, consultation, review and re-circulate approval, uploading and implementation. She notes that new guidelines need buy in from NEs and if there is an adverse event she is involved with reviewing whether the policy, guideline was adhered to.

Skin Closure in Primary Total Hip Arthroplasty at the Northern Hospital – Sam Bewsher, Orthopaedic Registrar – (Royal Melbourne Hospital.)

Dr Bewsher presented the findings of the research study he completed on 188 THJRs with a 10 month follow up.

Primary Outcome looked at:
- Incidence of Adverse Events:
  - Oral or IV antibiotics for wound issues
  - Readmission to hospital or return to theatre for wound complications

Secondary Outcomes looked at:
- Postoperative dressing change or reinforcement due to wound discharge until wound is healed
- Temporary cessation of chemical VTE prophylaxis and subsequent confirmed VTE

Age, Gender, Use of a drain, smoking, diabetes, consultant and registrar were not independent risk factors for adverse events, dressing changes or temporary cessation of chemical VTE prophylaxis

Smith et al – Staples have 4x risk of wound complications in hip surgery

Limitations of the research were noted as
- Low numbers
- Wound closer not documented
- Minimal co-morbidities recorded
- Wounds dressed at acute hospital or rehab
- Nursing discretion
- Documentation

Conclusion
Primary Outcome: There is no statistically significant difference in rates of adverse events using either staples or Monocryl to close primary THR wounds
Secondary Outcomes: Using staples rather than Monocryl leads to increased rates of dressing changes and clexane cessation for prolonged wound discharge
Dressing changes and cessation of clexane for prolonged wound discharge are independent risk factor for adverse events.
Panel discussion on VTE Prophylaxis in Orthopaedics – lead by Ross Crawford

As you can imagine, this discussion was hotly debated, as it is whenever VTE and orthopaedic surgeons / surgery is involved. Here are some of the salient points raised.

Surgeons see a bleeding wound as a risk to the wound for infection. Others see something different!
DVT prophylaxis is being regulated. Pharmacists view this as appropriate guidelines for orthopaedic surgery.
A risk assessment must be completed.
New drugs, non pharmacological methods, Aspirin is now ack in favour.
The challenges of CNMs working with surgeons with different / own protocols were discussed.
However – all agreed on TEDs and compression garments, Ice and Cryocuffs.
NICE guidelines were discussed.
MI leading cause of death post THJR
Mobilising – is it enough? How much is enough?
Many changes in the last 10 years – compressions, early mobilisation, and chemical prophylaxis in some form – so any guidelines – 100mg aspirin back in favour!

WDHB have the same issues and the discussion covered the same points that I hear discussed in the M&M meetings.

FFN (Fragility Fracture Network) – Global Multidisciplinary Network to Improve Fragility Fracture Management and Prevention – Ami Hommel (Assoc Professor Lund University and Skane University Sweden)

Ami presented on the work that the Network has been involved with in setting up the Global Network on Fragility Fractures.

Hip fractures – 87% of total cost of all fragility fractures
Often considerably increased dependency

Despite falling age-adjusted incidence, ageing will lead to massive increase in burden over the next 25 years
–Double the number of cases
–Treble the cost
Unless we do something about it

**Total number of hip fractures: 1990 = 1.66 million 2050 = 6.26 million**

**Mission**
To promote globally the optimal multidisciplinary management of the patient with a fragility fracture, including secondary prevention

**Aims**
- to disseminate globally the best *multidisciplinary practice* in preventing and managing fragility fractures
- to promote *research* aimed at better treatments for osteoporosis, sarcopenia and fracture
- to drive *policy change* that will raise fragility fractures higher up the healthcare agenda in all countries
**Membership**

Open to professionals in any field relevant to fragility fractures, eg:

– Orthopaedic surgeons
– Other doctors: geriatricians, osteoporosis doctors etc
– Nurses and allied health professionals
– Scientists
– Industry

Application for membership via the website – www.ff-network.org - €50

First Global Congress 6-8 Sep 2012 Berlin
Attended by >350
Second Global Congress 29-31 August 2013 Berlin
Attended by >400

**Progress**

“Blue Book” on fragility fracture care
National Hip Fracture Database – Sweden started in 1988
Fracture Liaison Services

Goals of the NHFD

  To change clinical behaviour – raise standards
  To raise the political profile of fragility fractures
  To provide a platform for clinical research

**Six standards for hip fracture care**

1. All patients with hip fracture should be admitted to an acute orthopaedic ward within 4 hours of presentation (2h)
2. All patients with hip fracture who are medically fit should have surgery within 48 hours of admission, during normal working hours (24h)
3. All patients with hip fracture should be assessed and cared for with a view to minimising their risk of developing a pressure ulcer
4. All patients presenting with a fragility fracture should be managed on an orthopaedic ward with routine access to orthogeriatric medical support from the time of admission
5. All patients presenting with fragility fracture should be assessed to determine their need for antiresorptive therapy to prevent future osteoporotic fractures
6. All patients presenting with a fragility fracture following a fall should be offered multidisciplinary assessment and intervention to prevent future falls

**Prevent next fracture**

We need to prevent hip fractures as well as treat them well if they happen

– By responding to earlier fractures we could reduce the future incidence by ~25%
– This requires a Fracture Liaison Service model
– Can a FLS-database drive change similarly?

**Secondary prevention**

• Secondary prevention is more effective than primary prevention
• A systems approach is needed, where capture of patients is automatic
• When it is done vigorously, it is cost-saving

WDHB is moving ahead with fast tracking patients with #NoF.
Utilisation of Orthopaedic Nurses Assessment Skills: Do they improve Patient Outcomes? Sue Stewart – (PhD candidate University of Ballarat)

Sue acknowledged that advances in surgical procedures required an altered focus on nursing assessment. She reflected on what we do well as nurses and what we can improve upon. She noted that task focused assessment was often the case with nurses ticking the Neurovascular box but not linking the findings to what could be the issue. Orthopaedic nurses need to have assessment skills for VTE risk assessment and management, wound assessment and management, pain assessment and management, mobility, nutrition - as well as the general nursing focus on respiratory, cardiac and renal. Utilising assessment skills and following through with investigation of findings will improve the patient outcome. Early Warning Scores are testament to this. Nurses need to be encouraged to use their assessment skills and continually question with a view to improving their skills.

Management of Spinal Cord Injuries Outside of a Specialist Spinal Injuries Unit – The Derby Experience. (Sharon Budd Trauma Nurse Co-ordinator – Royal Derby Hospital UK)

Initial management is the key in preventing complications both in the acute and rehabilitation phases
• Spinal injury care was not consistent or evidence based within the trust
• No local guidelines / care plans available within the acute trust
• Working group developed
SCI link worker with Sheffield SCIC
Training provided for staff in critical care, 4 levels of competence staff were given the opportunity for theoretical and practical experience within the unit
• Group of staff were identified with ‘expert’ knowledge within the organisation
The link worker will check that a referral has been made to the SCIC within 4 hours of admission as per national guidelines. They are involved with the individual care planning including bowel management and liaising with the patient and family for psychological support. They will monitor for complications and they are the go to person for education and training for nurses in the Trust.

Management of the SCI patient –
Positioning / pressure area care and musculoskeletal – limbs to be supported on pillows, passive exercises, joints supported to prevent hyperextension and contractures. Plan agreed with consultant dependant on the level of the injury
Spasms can be brought on by sudden noise, movements. Hypersensitivity and phantom pain need pain team management for expert care. It was noted that family can view these spasms as returning of function. Therefore it is important to educate the family early.
Muscle wastage can be as much as 30% in 7 days!
Referral to dietician as early as possible

5% natural increase in level of lesion (due to cord oedema) but 7% due to poor manual handling (SCOOP for transfers always)
Preventing pressure sores is paramount
• Firm mattress
• 2 hourly turns / change of position / this will also help other systems
• Consultant will need to confirm whether the patient can sit up and how far
• Heels elevated, support feet to prevent foot drop (splints are not used routinely as they can be a risk factor in developing pressure injuries)

DVT prevention
• DVT – swelling may only be apparent 10 days after a DVT has developed
• Anticoagulants (delay if surgery is immanent)
• Compression devices – remove 2 hrly to check skin
Stockings – full length, re measure at 72 hrs and then weekly due to changes in muscle wastage

Bowel management
• Spinal shock – rectum and anus are flaccid, there is a risk of over distension
• Daily rectal exam DRE (latex free gloves, numbing gel if sensation is present)
• Trust guidelines for competency for digital rectal examination.
If Anal reflex is present – stimulant enemas / digital stimulation
• Flaccid bowel - continue to need daily DRE
• Senna only used in initial management
Do not use bed pans for any level of injury until stabilised and / or documented in the notes. Use pads and explain reason to patient and the family
• Prolonged turning onto left side can lead to syncope in cervical lesions (vagal stimulation)
• NB constipation and impaction is a common cause of Autonomic Dysreflexia
This is a Medical emergency, BP can reach 220 systolic
• Usually injury above T6, can occur at anytime after spinal shock subsided, often post discharge therefore patients and family need education on the signs and symptoms and the immediate responses.
Response to presence of noxious stimuli eg blocked catheter (do not try washout, further increases problem), impacted bowel, in growing toenail or pressure sore
• Patients have an ‘alert card’ to highlight to GP/ED

Psychological support
• Diagnosis may be delayed due to presence of spinal shock and cord swelling (48hrs – 6 weeks). Be honest and consistent. Involve SCIC / peer support
• Loss of touch and positional awareness - regular turning, touch and contact, encourage to look at paralysed limbs

Challenges -
Initial development of the guidelines and updating with current evidence and best practice
• Communication of the guidelines throughout the trust (link staff)
• Infrequency of patients and staff turnover

www.mascip.co.uk – management guidelines also photographs available of transfers / positioning
www.spinal.co.uk for relatives
www.boa.ac.uk guidelines
My reflection –
Our acute orthopaedic ward often has spinal injuries. Not all of them are SCI. I educate the staff on log rolls and the importance of pillow positioning to prevent contractures. Bowel management is always instigated using the CMDHB and Otara spinal unit guidelines. I teach the nurses DRE and also DR Stimulation as per the guidelines. I think it would be beneficial for some staff to rotate through the Spinal Unit to get further practical experience – this would need to be negotiated with management.
Staff are encouraged to use the Mo Lift for transfer of SCI patients. Unfortunately this is not done as often as recommended.
Referrals to the Spinal Unit are always made within days of admission as it is not always possible to have a bed booked due to patient numbers.
I also teach our new staff the importance of being aware of Autonomic Dysreflexia, signs and symptoms and immediate actions to take.

Acute to Rehab SCI – Anna Brown Clinical Nurse Consultant – (Victorian Spinal Cord Service Austin Health Melbourne)

Anna began her presentation by giving some idea of the demographics of SCI in Australia.
Australian Demographics Spinal Cord Injuries
• 237 new SCIs in Australia per year
  – VSCS admits 85 – 90 annually
  – Paediatric incidence is not clear
• Segment of population at greatest risk adult men b/w 16 – 30 years
  – Men > Women approx 4 : 1
  – Paediatric incidence is > in boys than girls
• Most common age – 19 years
She then gave a brief overview of the anatomy and physiology of the spine.
  A Spinal Cord Injury Results in
• Loss of movement
• Loss of sensation
• Interruption to ANS – sympathetic pathways
  – Resulting in low BP
  – Inability to control body temperature
• Altered respiratory function
• Loss of bladder & bowel control
• Altered sexual function
  Classification of SCI
• Quadriplegia / Tetraplegia – T 1 and above
• Paraplegia – T 2 and below
• Complete / Incomplete – Motor and / or sensory sparing
Anna discussed the ASIA scoring system

ASIA Standard Classification
American Spinal Injury Association Scale of SCI Impairment
– A = Complete
– B = Motor complete / Sensory incomplete
– C = Incomplete - Below Grade 3
– D = Incomplete - Grade 3 or above
– E = Normal
Neurogenic Shock
• Results from injury to the descending sympathetic pathways
  • SCI at T6 & above may have profound effects resulting in Triad of Clinical Signs
    – Bradycardia
    • unopposed vagal tone on heart
    – Hypotension
    • vasodilatation & loss of sympathetic tone; expect BP 90/60
    – Hypothermia
    • sympathetic loss – resulting in poikilothermia

Anna stressed the importance that rehab begins on day 1. Apart from the usual ADL challenges and changes that the person with a new SCI has to face – they also need encouragement and education for bowel and bladder management.

Nursing with input from physio & OT
– Bladder training
  • Intermittent catheters – hand function necessary
  • SPC / IDC
– Regular surveillance
– Bowel training
  • Establish a routine – time of day, suitable to lifestyle, prevents unplanned bowel actions
  • 5 ‘Rs’ - right time, place, consistency, amount & reliable trigger

Anna stressed that patient education along with their family is crucial. She discussed leisure options and showed many photographs of possibilities for SCI people. She concluded by stating that successful rehab is dependent on
– Team approach
  – Patient education → theory & practice
  – Discharge planning
  – Appropriate equipment
  – Housing → suitable modifications
  – Community reintegration & resources
  – Support & follow up
• Community spinal nurses
• Annual review – Country & Metro Clinics

NZ is fortunate to have 2 world class facilities for SCIs. Unfortunately both facilities are usually full. Only Burwood takes ventilated patients. The Otara facility is old and dated but staffed with passionate knowledgeable teams of health care professionals. I had the opportunity to spend a day there and was overwhelmed with the work that is done there. I bought the Back on Track book that was developed for people with SCI. It is such a good resource. There is also a DVD.

There is a community group that is based at the centre called TASC: The Association for Spinal Concerns. Most of the volunteers are SCI themselves and have a wealth of knowledge about SCI to support their community.
Are we fit enough to run a good race? Peter Davis (Assoc Prof – retired Nottingham University)

Peter gave a very humorous presentation asking whether orthopaedic nurses were fit enough to join and run the race in response to the current orthopaedic health care challenges. Orthopaedic nursing care relates to mobility and mobilising patients – Nurses need to be physically, mentally and socially fit. In his abstract he stated that nurses are not immune to the effects of poor lifestyle choices in areas such as reduced physical activity, poor diet, increased alcohol consumption and inability to reduce the effects of stressful working environments. He related that the rates of obesity, diabetes, hypertension and depression in nurses are increasing in the developed world. He states that many health care professionals reflect the society they live in rather than lead as healthy examples.

The future!!!
“70 year old orthopaedic nurses caring for 40 year old obese and diabetic patients with heart disease undergoing their first knee replacement “

Peter is a shining example of how fitness has improved his lifestyle. His humour continued as he gave motivators and excuses for exercise.

Peter encouraged us to RACE TO THE CHALLENGE

“We rise to challenges in our daily work as orthopaedic nurses.
So that we can respond to our patients mobility and well being needs we need to ensure our own mobility and well being are maintained – race to this challenge or it may be too late.”

Take time to think – it is the source of all power
Take time to play – it is the secret of perpetual youth
Take time to read – it is the fountain of all wisdom
Take time to be friendly – it is the road to happiness
Take time to laugh – it is the music of the soul
Take time to love and be loved – it makes us human

Atypical Femoral Fractures. Anita Taylor NP and Cheryl Kimber NP

Information regarding atypical femoral fractures associated with use of bisphosphonate use is increasing. These fractures behave like stress fractures. This presentation looked at the aetiology and reviewed the management of some clinical examples. Patient education is the main focus for nurses to take to their patients on bisphosphonates. The incidence is estimated to be approx 78 cases in 100 000 patients taking oral bisphosphonates (Aus)

Risk Benefit: Fracture prevention whilst on bisphosphonates 1/100

This is a summary of the aetiology –

Clinical Features “stress fracture”
Associated with no trauma or low energy trauma
–Transverse fracture of proximal/subtrochanteric region of femur
–Complete fracture
–Unilateral/Medial “beaking” or spike
–Absence of comminution
–Cortical thickening
–Preceding ‘prodromal pain’
–Majority reported associated with long-term Bisphosphonate therapy
Patient Education
In addition to the usual discharge advice: post-operative care & follow up, bone health, falls risk minimisation etc.
• Bisphosphonate use: dental care, awareness of osteo-necrosis of the jaw ONJ
• Immediate review of pain in hip, thigh or femur: “typically sharp, well-localized to the mid or upper thigh, for several weeks to months prior to the fracture”
• Discuss bisphosphonate cessation/‘drug holiday’ with medical officer/pharmacist
• Co-morbid conditions- Vitamin D deficiency, RA, hypophosphatasia, glucocorticoids
The implications for practice were discussed
• Nurse awareness
• Identify risk factors amongst this in-patient population
• Standard definition of fracture type is required
• Research: Larger & longer studies to gather more information about this phenomenon
• International collaboration

In summary
• Atypical femoral fractures are rare
• May be associated with long term bisphosphonate use
• Benefit of bisphosphonate for fracture prevention outweighs risk
• Subtrochanteric # is an expected finding in patients with osteoporosis
• Nursing awareness and knowledge is important
• Ongoing research is needed

It was also stated that the ANZ Hip Fracture Registry will be collecting data on atypical fractures. I became aware of the issue of bisphosphonate use and fractures last year when we had a patient with an atypical femoral fracture admitted. Patients who are receiving bisphosphonate therapy and who have a subtrochanteric femoral fracture should be referred to a metabolic bone disease specialist. X-ray examination of the femur should be considered in patients who are receiving bisphosphonate therapy and who report symptoms of pain that may be originating from the femur. It is generally accepted that patients have a drug holiday after 5 years of bisphosphonate use to reduce the risks associated with this drug.

Fractured Neck of Femur: How we reduced the length of stay. (Megan Yeoman – CNC Austin Hospital, Vic)

This session focussed on the benefits of utilising the NOF pathway. The previous management system was surgery focussed not patient focussed and was rigid – meaning that the patient had to fit the system. There was a poorer outcome for the patient. An example from this era was given demonstrating the hit and miss approach and lack of responses from staff. The “feed / fast” regime and the delays were horrendous and then the patient was generally given morphine for their pain which then meant they became delirious – delaying surgery yet again.

The value of having an organisational collaborative effort, designing and implementing a pain management plan lead to improved results and improvements to patient care.
Now there is a full time ortho-geriatrician on the team involved with the care of all patients over 65 involved in low impact fracture trauma.
The patients needs have redesigned the management of this injury and led to the implementation of a clinical pathway by:

- Considering the patient experience
- Improving communication
- Improving system issues
- Tailoring pain management to the patients individual needs

There was a top down commitment to the process from the CEO all the way to the fracture liaison nurses.

Focus was on:
- Time to theatre
- Fasting
- Pain management
- Delirium

Before the system was changed:
- No Standard Pain-relief
- Mostly narcotic-based
- Minimal use of blocks (<10%)
- No review of analgesia efficacy
- Multiple trips to Radiology (Hip & Chest)
- Gap from ED until drug chart written up (on ward)

Admitted to the ward at various times of the day:
- Orthopaedic staff in theatre so charts not done
- Variable pain relief/not standard
- Fasted for varying lengths of time
- Analgesia usually ceased if patient became confused

Now starting in ED:
- Regular Paracetamol 1g TDS in elderly (Oral)
- Incremental boluses of Fentanyl to effect (or Morphine)
- Regular pain scores on function
- Fascia Iliaca Blocks – done in >80% of patients
- Single xrays Chest and Hip – ordered as a package.

On the ward:
- Care Pathway
- Pain Plan
- Hunger clocks
  - High protein Supplements
- Delirium screening – Cognitive Assessment Method
- Orthogeriatricians now educated and adopting similar analgesic prescribing for other patient groups

Post Operative:
- Patient controlled analgesia:
  - If patient cognitively intact, PCA mode +/- continuous infusion
  - If patient cognitively impaired, a continuous infusion @5mcg/hr
  - Both have clinician boluses to be given prior to movement.
- Nurses are already familiar with PCA
  - Monitor regularly
  - Pain at Rest
  - Pain on Activity
  - Sedation Score
  - CAM (Delirium) Score
This presentation highlighted for me the work that is currently being done on the NOF pathway. It is good to see the results of the implementation of a NOF pathway and refreshing to know that there is a national group working on the NZ guidelines for ERAS.

Neurovascular Observations: are they more than just a tick? (Cheryl Kimber and Larissa Bailey – Flinders Medical Centre, SA)

Knowing a patient's neurovascular status provides an early warning sign of developing orthopaedic complications such as nerve injury or compartment syndrome. This presentation discussed the audit that was undertaken and the resultant clinician led practical tool (specific NV charts for upper and lower limbs) being implemented throughout the hospital. This was introduced into clinical areas along with an education programme.

It is well accepted that NV assessment is fundamental to nursing observation especially in orthopaedics. Mainly for the prevention of compartment syndrome. On audit, it was found that there were inconsistencies in the accuracy of documentation and a general lack of understanding of the significance of the NV results. The new charts have excellent explanations on the reverse and are separate for upper and lower limb. There is also a section on signs and symptoms of compartment syndrome. Also explanation of what to do, who to notify.

The forms definitely have promise and I would be very interested in following this up with auditing and reviewing the orthopaedic wards use of the current NV form. I do ensure that all new graduates/new staff have education on the importance of correct NV assessment and the implications of Compartment Syndrome.

Overall the conference presentations demonstrated to me that WDHB is either working within internationally accepted processes or we are beginning the journey – for example the work that is being done on the ERAS programme will improve the outcomes for patients having hip and knee arthroplasty as well as the work that is being done on the NOF pathway.

Attending this conference has given me many ideas for future education as well as audit and improvements that I can be involved with.