Pressure Injury Prevention: putting evidence into practice

Wound care – A Matter of Balance
New Zealand Wound Care Society Conference 2015
Marlborough Convention Centre
Blenheim, New Zealand
21–23 May 2015

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Community Care Program ACT Health
Overview

- Environment
- Acute and community public health sector
- Wound data
- Pressure injuries - costs and governance
- Understanding the depth of the problem
- 3 evidence based systems

- Equipment and support surfaces
- Education
- Experts
- Results
- Challenges and future direction
ACT Health
environment acute and community

Canberra - 101 years old
Capital of Australia
Government
390,000 people
Canberra Hospital
Tertiary teaching, catchment for trauma from surrounding NSW
672 beds - 1000 beds
3000 nurses ACT Health
5 community centres
Canberra and surrounding NSW

- Area: 2358 sq km

Population:
- ACT: ~ 390,000
- Region: ~ 617,000
Community Health Centres – new models of care
Canberra Hospital – Tissue Viability Unit

Wound types – incidence new and review

- pressure injuries
- skin tears
- dehiscence wounds
- burns
- chronic wounds
Tissue Viability Community Service

- 250 – 300 open referrals
- 40 new referrals each month
- 100 – 150 patient contacts per month
- Pressure injuries 12%
- Skin tears 13%
- Dehiscence 4%
- Burns 1%
- Leg ulcers 70%

Wound types – incidence new and review

- Pressure injuries
- Skin tears
- Dehiscence wounds
- Burns
- Leg ulcers
Residential Aged Care Facilities

Wound types – incidence new and review

- Pressure injuries
- Skin tears
- Venous
- Arterial
Pressure injuries

- Major challenge for healthcare professionals and systems
  - Collier, Moore 2006, Ousey 2005

- Nursing specific clinical indicator & indicator for the quality of care
  - Baharestani et al 2009

- Large percentage of pressure injuries are considered to be preventable
  - EPUAP & NPUAP 2009

- Pressure injuries were the fifth most costly, commonly occurring preventable condition
  - Jackson et al 2011
Costs and Governances

Associated costs ACT Health
- $18,948,996 Graves 2014

Establishment of the National Safety and Quality Health Service - **Standard 8**
- Prevent PI’s and manage them when they occur
  - EPUAP/NPUAP/PPPIA Prevention and Treatment of Pressure Injuries: Clinical Practice Guideline
  - Strategic framework
  - Policy, procedures and clinical guidelines
  - Evidence based tools and resources
Understanding the depth of the problem through data collection

ACT Health
- Annual prevalence
- Incidence reporting: Riskman – wound extension module

Canberra Hospital
- Tissue Viability Unit – minimum wound data set
- Incidence auditing at ward level for pressure injury – monitoring patient care – clinical reviews stage 3 and above

Community
- Tissue Viability Community Service
- Incidence auditing clinical file – minimum wound data set, ACT Health Patient Administration System
## Extract from RiskMan – wound extension module (WEM)

<table>
<thead>
<tr>
<th>Wound?</th>
<th>Pressure Injury</th>
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<tbody>
<tr>
<td>Sterilising Services?</td>
<td>Yes</td>
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### Pressure Injury

**Please do not report arterial or venous ulcers**

<table>
<thead>
<tr>
<th>Occurrence</th>
<th>Admitted with pressure injury</th>
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**Pressure Injury Stages (AWMA)**

**Pressure Injury Classification**

<table>
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<tr>
<th>Stage 3: Full Thickness Skin Loss</th>
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**Wound Location**

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<tr>
<th>Heel Right</th>
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**Pressure Injury Risk Assessment**

**Pressure Injury Risk Assessment**

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<tr>
<th>Completed within 8 Hours (Including Stay in ED)</th>
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**Can Patient independently position themselves**

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<th>Yes</th>
<th>No</th>
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**Preventative Measures in place at time of reporting**

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<th>Yes</th>
<th>No</th>
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**Preventative Measures**

- Daily skin integrity assessment (including after repositioning)
- Pressure reducing “foam adhesive” dressing on sacrum / heels
- Alternating air mattress/overlay in place
- Static / Alternating air cushion in place
- Heel pressure offloaded
- Patient/carer provided education on prevention and management strategies
- Pain assessed

**Management Plan**

- Referral to either Tissue Viability Team/Nurse Practitioner
- Describe Future Management Plan

**Action Taken for Pain**

| Analgesia before dressing, Refer Pain Management Team |

**Patient/significant others /carers informed of pressure injury**

| Yes | No |

**Manage incontinence by maintaining skin hygiene and skin integrity**

| Yes | No |

**Skin integrity maintained under medical devices via daily check (eg splints, tubing)**

| Yes | No |

**Is there documented prevention, assessment and management plan in the clinical notes/care plan**

| Yes | No |

**Reposition regime plan, coordinated and documented**

| Yes | No |

**Referral to Nutrition (pressure injury > stage 2)**

| Yes | No |

**Referral to Occupational Therapy/Physiotherapist**

| Yes | No |

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Clinical practice guideline

- EPUAP, NPUAP, PPPIA Prevention and Treatment of Pressure Injuries: Clinical Practice Guideline
- Launched in August 2014
- Special populations
  - bariatric
  - operating rooms
  - SCI
  - critically ill
  - older adults
Evidence

- Reposition patients to reduce duration and magnitude of pressure over vulnerable areas, inclining bony prominences and heels

- Active alternating pressure support mattresses could be used as an alternative in patients at high risk of pressure injuries

- Use a high specific reactive constant low pressure support foam mattress on beds and trolleys for patients' at risk of pressure injuries

- Growing body of evidence suggest that microclimate plays a role in the development of stage 1 & 2 PI’s - Control the underlying cause of extreme temperature or skin moisture
3 Evidence based systems

- Equipment – support services and surfaces
- Experts and Education
  - Acute and community focus
- Resources for pressure injury prevention and management
Equipment - Support surfaces

- **2010** hospital wide mattress replacement
  - constant low pressure mattresses
- **2012** Establishment Central Equipment Store
  - Alternating air mattress / cushions -30mins (auto logic/nimbus)
  - Heel tofts
  - Skin IQ microclimate
  - Bariatric
- **Community Equipment Scheme**
  - Rapid response – assessment
  - Hiring of support surfaces
Rapid Response

- Occupational therapy referral service
- 40 new referrals each month
- Monday – Friday service
- Respond and action within 48hrs
- Pressure relieving equipment
- Hospital bed
- Palliative care
- Bariatric
Experts

- 2012 Growth in networking within our acute and community and residential aged care
- 2012 Establishment Tissue Viability Unit
  - 7th rotation of 2 RNs for 6 months
  - Model
    - Direct and comprehensive care
    - Support of systems, skill and decision-making
    - Education
    - Research
    - Professional leadership
- 2013 Diabetic High Risk Foot Clinic (Multidisciplinary)
- 2014 CNC Wound Management - Tissue Viability Community Service
- Multidisciplinary approach
  - Nutrition, occupational therapist, physiotherapist
  - Numerous medical teams
2015 Expert Resources

Patient Centred Wound Services

- Nurse Practitioner – Wound Management Tissue Viability Community Service
- ACT Health Staff Development Unit Education
- Clinical Nurse Consultant Tissue Viability Unit
- ACT Equipment Hiring Service
- High Risk Diabetic Foot Clinic
- Community Capital Chemist Pharmacy Compression Garment Clinic
- 2 Registered Nurse - months rotation in TVU - CH
- Central Equipment Store Canberra Hospital
- 5 Community Health Centres

- Clinical Nurse Consultant Tissue Viability Unit

Central Equipment Store Canberra Hospital
Education

Staff Development Unit – ACT Health

- 5 e-learning modules
- 6 wound days
- 24 wound afternoon sessions
- Symposium
- Include AWMA (ACT) – Twilight Educational Evenings, Symposium and Conferences
Resources

Standardisation of product range across hospital and community

- foam dressings
- Ph cleansers and barrier creams
- removal of “kylies”
- review of incontinence management & products
- nutritional supplements
## Evidence into practice....

### Move away from traditional practices
- Plastic gloves filled with water
- Rubbing skin
- Only pillows to support heels
- Zinc and caster oil cream and others
- Water as cleaning agent & soaps
- Plastic “Kylies”
- Unreliable alternating air mattresses surfaces
- No alternating air cushions

### Move to evidence based practices
- Alternating air mattress-30mins
- Alternating air cushions
- Offloads for heels trofts
- Skin IQ – microclimate enhancer
- Mepilix boarder sacral & heel dressings
- Conveen skin care range
  - Ph Cleanser and creams
- TouchDry disposal
- Incontinence pads
- Visual assessment of skin
Results

Canberra Hospital facility acquired Pressure Injury Prevalence 2010-2015

- 2010: 18.8
- 2011: 9.4
- 2012: 14.6
- 2013: 5.9
- 2014: 4.4
- 2015: 3.5
Results

Classification of facility acquired Pressure Injuries 2015

- Stage 1: 2014 - 13, 2015 - 12
- Stage 2: 2014 - 5, 2015 - 6
- Stage 3: 2014 - 0, 2015 - 0
- Stage 4: 2014 - 0, 2015 - 0
Results...

Community Care Facility Acquired Pressure Injury Prevalence
2010-2015

- 2010: 10.5
- 2011: 2.9
- 2012: 2.1
- 2013: 2.4
- 2014: 1.1
- 2015: 2.6
Challenges/Future direction

- High risk patients
- Educating/supporting paid carers
- Long term pressure injuries
- Bariatric patients
- Aged population
- Co morbidities
- Turning regime for the high risk patient
- Equipment – maintenance
- Purchasing/funding for new equipment
Summary – A Matter of Balance

- Practice changes – putting evidence into practice
- Targeted resources for our health environment for both the acute and community settings
- Reduced the prevalence of pressure injury
THANK YOU

- ArjoHuntleigh

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References

Australian Commission on Safety and Quality in Health Care- Standard 8 “Preventing and Managing Pressure Injuries”


