



# Shooting for the STARS!!

## The Skin Tear Audit Research (STAR) Project

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who cares...

**we care**

In the USA skin tears estimated to have occurred in 1.5m aged care residents (Malone et al, 1991)

- 41.5% of known wounds in 347 bed aged care facility (Everett & Powell, 1994)
- 5.5% known wounds in community nursing service amongst all ages (Carville & Lewin, 1996)
- 20% known wounds in DVA community nursing population (Carville & Smith, 2004)
- 8.5% WA tertiary hospital (Morey, 2005)



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- No consensus on definition
- No consensus on classification system
- A classification system is rarely used in Australia
- No Australian guidelines for prediction, prevention, assessment and management



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- Skin tears are perceived to be the most common wound in the elderly
- 21% of population >65 years by 2026 and 27% by 2051 (ABS, 2005).
- Validated guidelines for prediction, prevention, assessment and management of skin tears could direct best practice and cost-effective outcomes across all sectors

## Study Rationale



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- Lack of data on skin tears in older people prompted researchers from Silver Chain and Curtin University to develop a research partnership to fill this gap
- It was quickly realised that an essential prerequisite for conducting either a prevalence or incidence study is the availability of an accepted classification system that can be used reliably by different individuals working in different health and aged care settings



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- **Stage 1:** To test and refine, if necessary, the current definition of and system for classifying skin tears
- **Stage 2:** To determine the extent of the problem within Australian aged care facilities
- **Stage 3:** To test the external validity of the skin tear classification
- **Stage 4:** To develop a set of guidelines for the prevention and treatment of skin tears
- **Stage 5:** To evaluate the effectiveness of the classification and guidelines in acute, residential and community settings

## Aim

To test and refine if necessary, the current definition of and system for classifying skin tears



## Objectives

- To gain agreement from experts on a universal definition
- To gain agreement from experts on a skin tear classification
- To test the internal validity and the IRR of the classification

## Objectives and Methods

1 Develop and validate definition

2 Gain agreement of classification system

3 Test the validity and reliability

1 Consensus reached by state developmental group of experts and validated by national expert panel

2 Using a library of photographs of skin tears, the state consensus will be validated by national expert panel

3 National panel will independently classify a set/s of photos and RNs trained on classification system will independently classify a set/s

## Consensus Groups

- 8 State Expert Panel Members (tertiary hospitals, community, aged care)
- 12 (11) National Panel Members (from every State and Territory)



## Testing and IRR Group

- 30 (26) RNs (aged care, acute care and community care)

8 State Expert Panel Members (tertiary hospitals, community, aged care)

- **Workshop 1**
  - With PM categorise 25 photos
  - Identify issues with classification
  - Use amended nominal group technique to gain consensus on changes
- **Workshop 2**
  - Test first draft amended tool
  - Identify issues
  - Redraft tool
- **Workshop 3**
  - Test second draft amended tool
  - Identify issues
  - Draft explanatory notes
  - Decide to retain current PM definition



- Initial classification system was based on 10 clients
- Lack of IRR testing
- Definitions of scant and moderate or above and below 25%
- How to measure 1mm (when determining approximation)
- Distinction between linear and flap tears



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## Complicating Factors?



## STAR Classification System

- Need identified for new amended Payne & Martin tool as it was considerably different from the original tool the group decided to call it the “STAR Classification System”
- However the Payne & Martin 1993 definition of a skin tear would remain:

“A skin tear is a traumatic wound occurring principally on the extremities of older adults, as a result of friction alone or shearing and friction forces which separate the epidermis from the dermis (partial thickness wound) or which separates both the epidermis and the dermis from underlying structures (full thickness wound).”

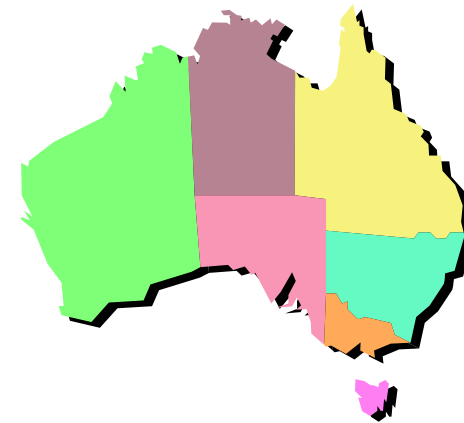
# 11 National Panel Members

(from every State and Territory)



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- Tested STAR classification on 25 photographs
- Teleconference to further improve classification system
- Consensus was reached on a glossary using an amended nominal group technique





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- Recruited 26 RNs (from aged care, acute care and community care)
- At workshop, group asked to individually classify 25 photos
- Discussion around answers for educational purposes and feedback forms completed after test after papers were collected!





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- Quality of photographs
- Difficulty in accessing photos of Category 1a and 2a skin tears

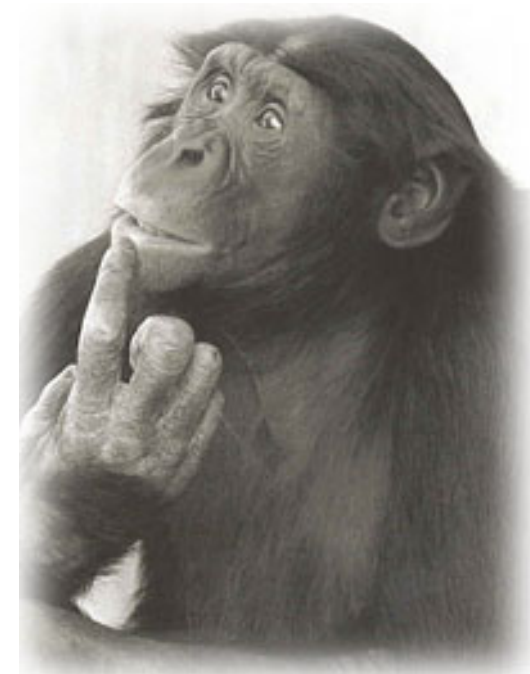


### What were areas of difference?

Categories 1b, 2a and 2b all had less than 65% agreement in one or more photos

These related to:

- Viability
- Approximation
- ? Past experience of RN



Follow Up to Test One



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- Test the original tool on non-nursing staff
- Get sufficient photos of improved quality and revisit structure of tool using same process as before
- Re-test new version of STAR tool using RNs from community, acute and aged care backgrounds

## Repeating the Process



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- Reconvened the development group
- National expert panel's opinions sought on amended classification tool
- Second reliability test; three separate sessions in different clinical settings



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- Level of agreement on the category for each skin tear ranged between 83% and 100%
- Overall agreement for the set of photographs = 93%
- All except stage two categories achieved an overall agreement of more than 90%
- The percentage agreement in these categories averaged 85%



# STAR Classification System



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## STAR Skin Tear Classification System



### STAR Skin Tear Classification System Guidelines

1. Control bleeding and clean the wound according to protocol.
2. Realign (if possible) any skin or flap.
3. Assess degree of tissue loss and skin or flap colour using the STAR Classification System.
4. Assess the surrounding skin condition for fragility, swelling, discolouration or bruising.
5. Assess the person, their wound and their healing environment as per protocol.
6. If skin or flap colour is pale, dusky or darkened reassess in 24-48 hours or at the first dressing change.

### STAR Classification System



#### Category 1a

A skin tear where the edges **can** be realigned to the normal anatomical position (without undue stretching) and the skin or flap colour **is not** pale, dusky or darkened.



#### Category 1b

A skin tear where the edges **can** be realigned to the normal anatomical position (without undue stretching) and the skin or flap colour **is** pale, dusky or darkened.



#### Category 2a

A skin tear where the edges **cannot** be realigned to the normal anatomical position and the skin or flap colour **is not** pale, dusky or darkened.



#### Category 2b

A skin tear where the edges **cannot** be realigned to the normal anatomical position and the skin or flap colour **is** pale, dusky or darkened.



#### Category 3

A skin tear where the skin flap is completely absent.

Skin Tear Audit Research (STAR). Silver Chain Nursing Association and School of Nursing and Midwifery, Curtin University of Technology. Revised 15/1/2007.

# STAR Classification System Glossary



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- **Skin Tear:** “a traumatic wound occurring principally on the extremities of older adults, as a result of friction alone or shearing and friction forces which separate the epidermis from the dermis (partial thickness wound) or which separate both the epidermis and the dermis from underlying structures (full thickness wound)”<sup>1</sup>.
- **Pale, dusky or darkened skin or flap colour:** when compared to the individual’s ‘normal’ surrounding skin, may indicate ischaemia or the presence of haematoma, which may affect skin or flap viability.
- **Ischaemia:** inadequate tissue perfusion as evidenced by pale, dusky or darkened tissue.
- **Haematoma:** a collection of blood or clot under the flap or realigned skin.
- **Realign:** to replace the skin or flap into the normal anatomical position without undue stretching.
- **Linear skin tear:** a skin split or the skin splitting in a straight line.
- **Flap skin tear:** a segment of skin or skin and underlying tissue that is separated from the underlying structures.

## References:

- 1 Payne, R., & Martin, M. (1993). Defining and classifying skin tears: Need for a common language ... a critique and revision of the Payne-Martin Classification system for skin tears. *Ostomy Wound Management*, 39(5), 16-20.
- 2 Photographs courtesy of the Skin Tear Audit Research (STAR) photographic library, Silver Chain Nursing Association and School of Nursing and Midwifery, Curtin University of Technology.
- 3 Carville, K., Lewin, G., Newall, N., Haslehurst, P., Michael, R., Santamaria, N., & Roberts, P. (2007). STAR: A consensus for skin tear classification. *Primary Intention*, 15(1), 18-28.

# WoundsWest STAR Testing



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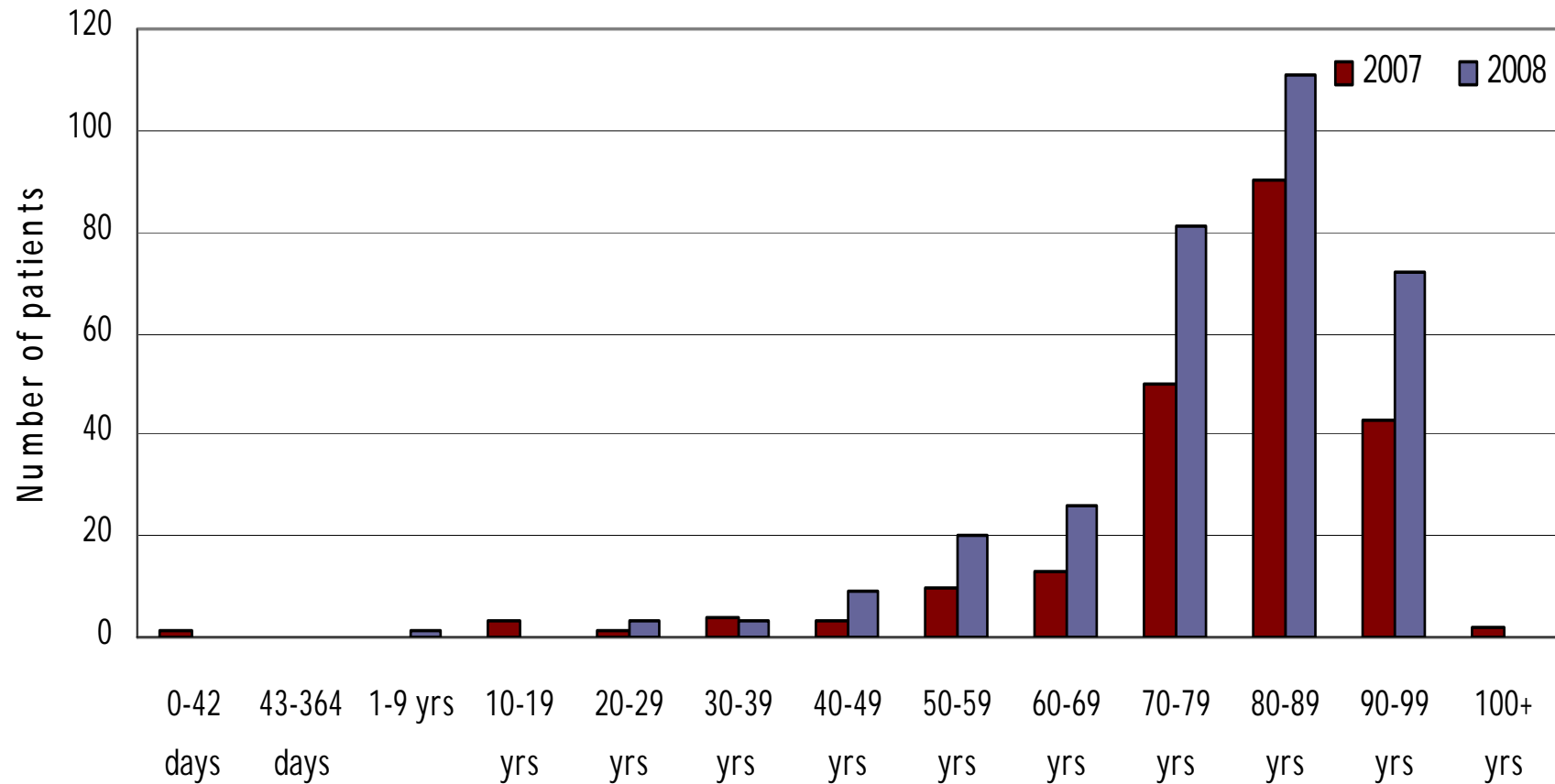
- 220 surveyors for 2007 survey
- 220 surveyors for 2008 survey
- 120 student nurses
- Inspected the skin of almost 3000 patients in 2007 and 2008



# Skin Tear Prevalence - 8% and 11%



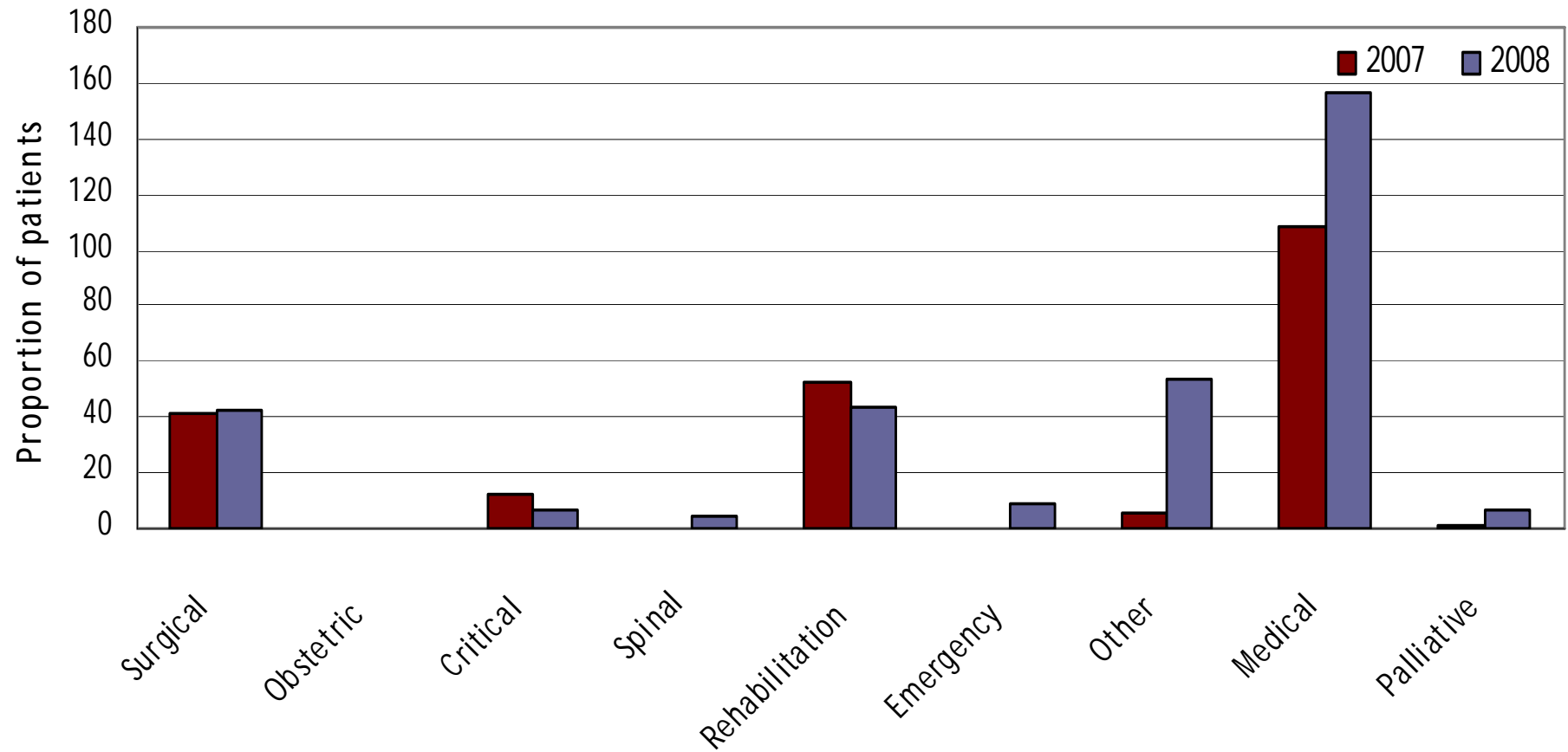
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# Medical Specialties



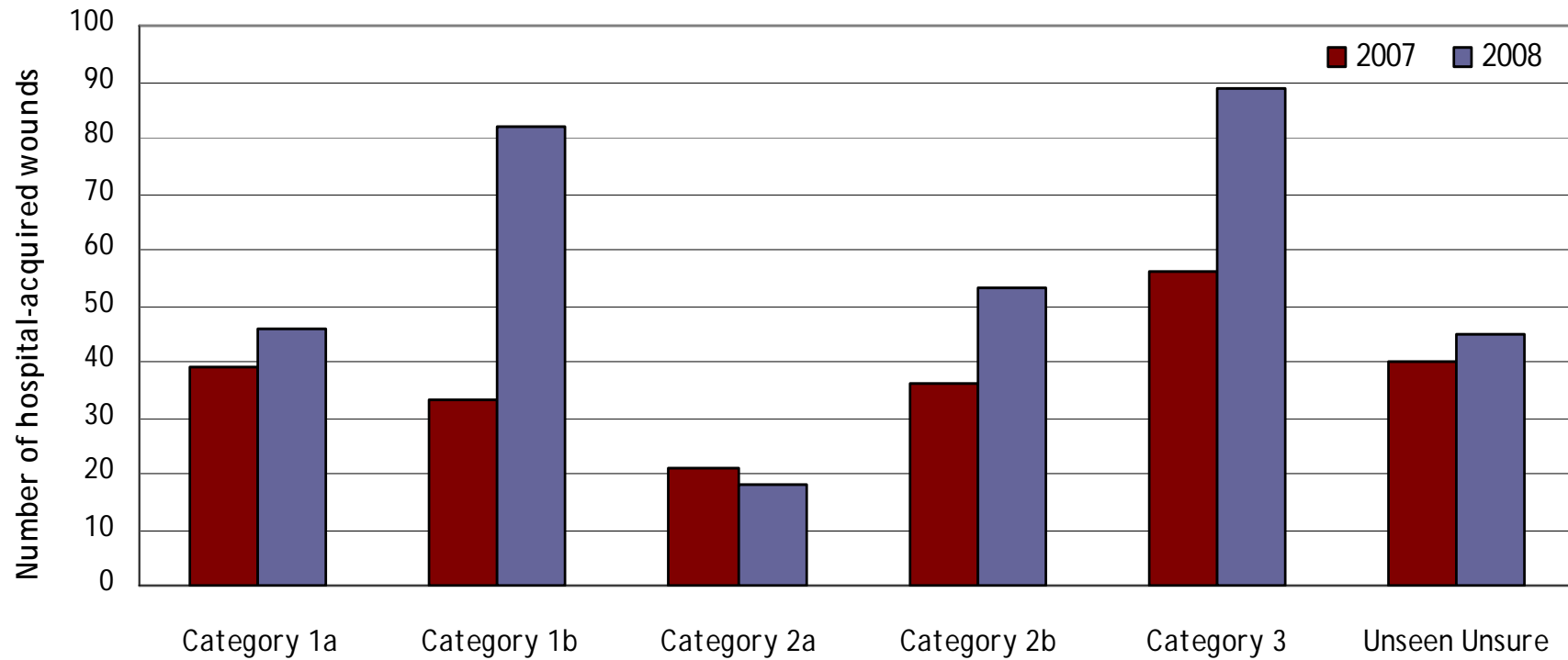
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# Hospital Acquired Skin Tears - 64% & 61%



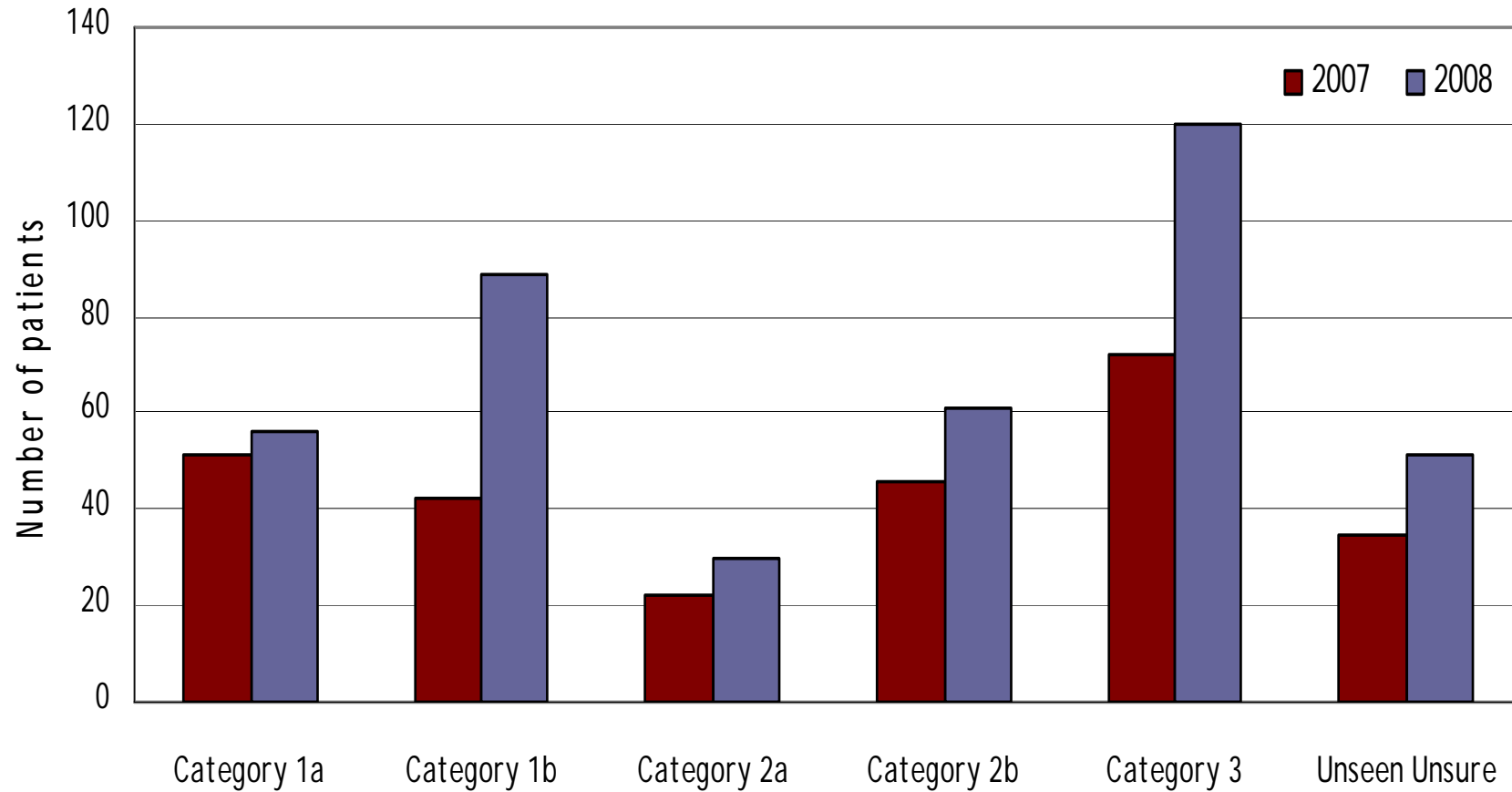
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# STAR Classification



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## STAR Classification Users



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- Osborne Park Hospital
- Hollywood Private
- Royal Hobart Hospital
- Royal Darwin Hospital
- Flinders Medical Centre
- Westmead Hospital
- Mater Misericordiae
- SJOG Hospitals
- Prince Charles Hospital
- St Vincent's Private
- Launceston General
- Balmain
- South West Healthcare Vic
- Eastern Health Victoria
- Blacktown Hospital
- Liverpool
- Caritas Care
- Rockhampton
- Lyell McEwen
- Blue Care Queensland
- Hall & Prior
- Hardi Nursing Home Group



- Benchmark prevalence and incidence rates across sectors
- Less confusion & continuity in assessment & treatment
- Consensus for development of protocols, budgets & prevention strategies
- Similarities with pressure ulcer prediction scale

### **AIM:**

To identify patient and environmental factors that predispose individuals to skin tears

### **OBJECTIVE:**

- Conduct a case control study in the tertiary sector to identify risk factors
- To possibly inform a skin tear risk prediction tool



# Acknowledgements



EVERY MINUTE. EVERY HOUR. EVERY DAY. WE CARE.

- WA Department of Health
- Office of the Chief Nurse
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- Silver Chain
- Smith & Nephew
- Ursula Ladzinski
- RNs, State and National Expert Panels
- Everyone that sent in photographs and clients for allowing us to take them!

