

## Safety & Quality in Health Care - systematically incorporating evidence – based approaches

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Chair  
Victorian Quality Council

# Quality of Health Care

A Victorian Quality Council presentation

*The extent to which a health care service produces a desired outcome.*

A quality service is:

- consumer focussed
- quality & safety are reflected at all levels and systematically implemented
- care is evidence-based

# How safe is health care?

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- 1991 **Harvard Medical Practice Study** – adverse events occurred in 3.7% of hospital admissions with 58% preventable
- 1992 **Utah and Colorado study** – adverse events occurred in 2.9% of hospital admissions with 53% preventable
- 1995 **Quality in Australian Health Care Study** – adverse events occurred in 16.6% hospital admissions - 51% preventable
- 2003 **New Zealand study** – more than 5% with nearly 50% preventable
- 2004 **Canadian Adverse Events Study** - adverse events occurred in 7.5% with 36.9% preventable

# How safe is health care?

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The Sydney Morning Herald

# Audit reveals deadly lack of surgery care

Julle Robotham  
Medical Editor

One in five people who died after surgery received deficient care, and one in 50 died as a direct result of an error or misdiagnosis.

## Culture of negligence a danger to patients

The NSW Health Department wanted more than \$200 million over the past 10 years to modernise information systems that were an flawed then, but that have since been replaced with a new system. The NSW Health Department wanted more than \$200 million over the past 10 years to modernise information systems that were an flawed then, but that have since been replaced with a new system. The NSW Health Department wanted more than \$200 million over the past 10 years to modernise information systems that were an flawed then, but that have since been replaced with a new system.

state in 2004 in which deficient care was considered a factor. The total number of surgical deaths was 876, but in 80 per cent of cases the care was judged to have been appropriate. The report also identified 21 when a patient was admitted differently aware history. It runs the public hospitals - in paid to officially - contribute many sur-

geons also worked at private hospitals, which could raise a dilemma if an emergency arose. But the audit showed some improvements since data collection began in 2002, with fewer operations performed on very sick people where there was no chance of success, and more consistent action to prevent the development of deep vein blood clots that can occur when people are immobilised after surgery. Three-quarters of the doctors said they had made changes in the way they practised after feedback from the program. Dr Aitken said 95 per cent of West Australian surgeons were

now taking part in the voluntary audit, which helped doctors improve their performance by becoming more aware of potential pitfalls. When a patient died under their care, the surgeons forwarded case notes to the audit team, which in turn asked independent experts to comment on whether there had been faults in the person's care, and whether the death might have been prevented. But patients' families could not gain access to the case reports, protected under freedom-of-information legislation. Russell Stitz, the president of the Royal Australasian College of Surgeons, said surgeons in several states had recently begun

contributing to a national audit, but funding negotiations were continuing in NSW. There were no imminent plans to require surgeons to report deaths under their care, Dr Stitz said. "We'd rather put them in the position where if they don't do it, a cloud falls over their head." And the college would resist public disclosure of individual surgeons' death rates. "If we say we're going to identify the surgeons publicly, they'll run a mile. We will look at someone who's at variance with normal performance and remediate them," said Dr Stitz. "We need surgeons. We'd rather get them back up to speed."

### SICK SYSTEM

Deficiencies of care linked to surgical deaths

Delays	ADMISSIONS	
	EMERGENCY	ELECTIVE
Delays	23%	15%
Technical errors - open surgery	20	35
General complications	10	11
Incorrect/inappropriate therapy	8	14
Communication failures	8	4
Failure to use facilities	7	6
Staff problems	7	6
Diagnosis-related problems	6	2
Patient factors	3	2
Drug related problems	3	2
Transfer problems	2	1
Resuscitation problems	2	
Assessment problems	2	6
Other	3	

Due to rounding, figures amount to more than 100%  
SMA GRAPHIC U.S.A. SOURCE: WESTERN AUSTRALIAN AUDIT OF SURGICAL MORTALITY

# Medical errors threat to life

**MEDICAL mistakes are going unreported in Victoria's public hospitals and staff are untrained on how to manage serious incidents, an Auditor-General's report says.**

The report criticised the way hospital mistakes are managed and called on the Department of Human Services to enforce better standards across the industry.

In his report, "Managing patient safety in public hospitals", Auditor-General Wayne Cameron surveyed five public hospitals. None were named.

He praised some hospitals for their "clear policies, good compliance by staff and good internal systems", but said others had room for improvement.

The report, which was tabled in Parliament yesterday, found that some hospitals had "weak and incomplete framework".

They had no way of ensuring mistakes were not repeated.

Hospital mistakes — known as sentinel or adverse events — include medication errors, patient falls, equipment failures and diagnosis flaws that cause harm, or have

### TIME BOMBS

Pacemaker models which have been found to contain faults and may fail:

- Guidant pacemakers manufactured from November 25, 1997 to October 26, 2000
- Pulsar Max model numbers 1170, 1171, 1270
- Pulsar model numbers 0470, 0870, 0970, 0972, 1172, 1272
- Discovery model numbers 1174, 1175, 1273, 1274, 1275
- Meridian model numbers 0476, 0976, 1176, 1276
- Pulsar Max II model numbers 1180, 1181, 1280
- Discovery II model numbers 0481, 0981, 1184, 1186, 1187, 1283, 1284, 1285, 1286
- Contact TR model number 1241

Warning: Seek attention immediately if you notice a prolonged rapid heart rate, experience temporary loss of consciousness from fall of blood pressure, light-headedness, or have new or increased symptoms of heart failure



# Dodgy ticker alarm

Michelle Pountney  
health reporter

ABOUT 1000 Australians implanted with one of nine models of a pacemaker could have a ticking time bomb in their chests. Pacemaker manufacturer Guidant has contacted cardiologists across the world to warn them of a fault with some of its models. There have been 69 failures, including two in Australia, as a result of a faulty airtight seal on some Guidant pacemakers. One patient overseas has died as a result of health problems that could have been linked to the pacemaker. The worldwide alert affects about 28,000 patients, including about 1000 in Australia. Some patients who are pacemaker-dependent may be forced to have surgery to replace their device.

Cardiologists who have patients fitted with Guidant pacemakers manufactured from November 25, 1997 to October 26, 2000, have been advised to contact patients urgently for assessment. The models include Pulsar Max, Pulsar, Discovery, Meridian, Pulsar Max II, Discovery II and Contact TR. All faults have occurred in pacemakers that have been implanted for at least 48 months. The fault is likely to occur late in the pacemaker's service life, and does not affect pacemakers sold or implanted within the past four years. The Therapeutic Goods Administration, which regulates medical devices on the Australian market, has co-ordinated the hazard alerts to Australian cardiologists. According to Guidant's hand-delivered letters to cardiologists, a hermetic sealing component in the pacemaker could degrade, resulting in more moisture entering the device. The moisture could cause the pacemaker to malfunction and fail to perform as designed. Failure could lead to serious clinical impacts on a patient who is dependent on the pacemaker to deliver an optimal heart rhythm. "Patients have been advised to seek attention immediately if they notice a prolonged rapid heart rate, experience syncope or light-headedness, or have new or increased symptoms of heart failure. Guidant announced in its letter it would reimburse patients for out-of-pocket medical expenses. In two cases the pacemakers have been at the maximum sensor rate for a long period, causing heart failure in patients. Guidant advised cardiologists that inappropriate accelerator function had been observed in 60 per cent of pacemaker failures. The rate of failure of pacemakers that remain implanted in patients is estimated at 0.17 per cent to 0.51 per cent over the remaining device lifetime. Patients have been advised to seek attention immediately if they notice a prolonged rapid heart rate, experience syncope or light-headedness, or have new or increased symptoms of heart failure. Guidant announced in its letter it would reimburse patients for out-of-pocket medical expenses.

Kate Jones  
medical reporter

the potential to cause harm, to patients. Mr Cameron said up to 20 per cent of all incidents were due to preventable "adverse drug events". Opposition health spokesman David Davis said the report showed that Victoria's health system was in chaos. "The Government has been warned again and again to improve the reporting of sentinel and adverse events," he said. "The Bracks Government's failure to properly manage the reporting of adverse events has placed the lives and the health of patients at risk." The report recommended that the Department of Human Services set standards for reporting health mistakes. Health Minister Bronwyn Pike said the department had examined the Auditor-General's recommendations. The department would take action in several areas. These included an analysis of hospital reports to identify patterns, trends and preventative actions and additional training for hospital staff.

# How safe is health care?

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- Harold Shipman
- Bristol Royal Infirmary
- King Edward Memorial Hospital
- South Western Sydney Area Health Service - Cambden and Campbelltown Hospitals
- Bundaberg Hospital
- Royal Melbourne Hospital

# Improving the quality of care

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WHO	World Alliance for Patient Safety
UK	National Patient Safety Agency
USA	Joint Commission on Accreditation of Health Care Organizations (the Joint Commission)
Australia	Australian Council for Safety and Quality in Health Care (became a Commission in 2006)
Victoria	Victorian Quality Council created in 2001 to lead the safety and quality agenda in Victoria

# The Victorian Quality Council (VQC)

A Victorian Quality Council presentation

- VQC was established in 2001 to lead the quality agenda for Victoria.
- The council has 28 members, is supported by a management group and it works to a 3 year strategic plan. It:
  - receives \$3M annually by the Department of Human Services to undertake its work
  - reports directly to the Minister for Health
  - has 28 members: clinicians, CEOs, Board members and consumers – appointed for their expertise in safety and quality
  - is supported by a management group
  - works to a 3 year strategic plan covering key areas of health care safety and quality, including systems issues and key risks

# The Victorian Quality Council (VQC)

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## Aims

- minimise the risk of harm to consumers
- reduce unnecessary & inappropriate risk and variation in processes and practices
- improve access to reliable information as the basis for improvements
- build a transparent health care culture based on clinical governance principles and practices
- demonstrate safety & quality improvements

## Approach

- to collaborate with health services, consumers and other bodies
- to base decisions on the best available evidence
- to develop practical tools and strategies to assist health services to improve safety and quality
- improve coordination of quality & safety initiatives

# The Victorian Quality Council (VQC)

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VQC projects are directed at:

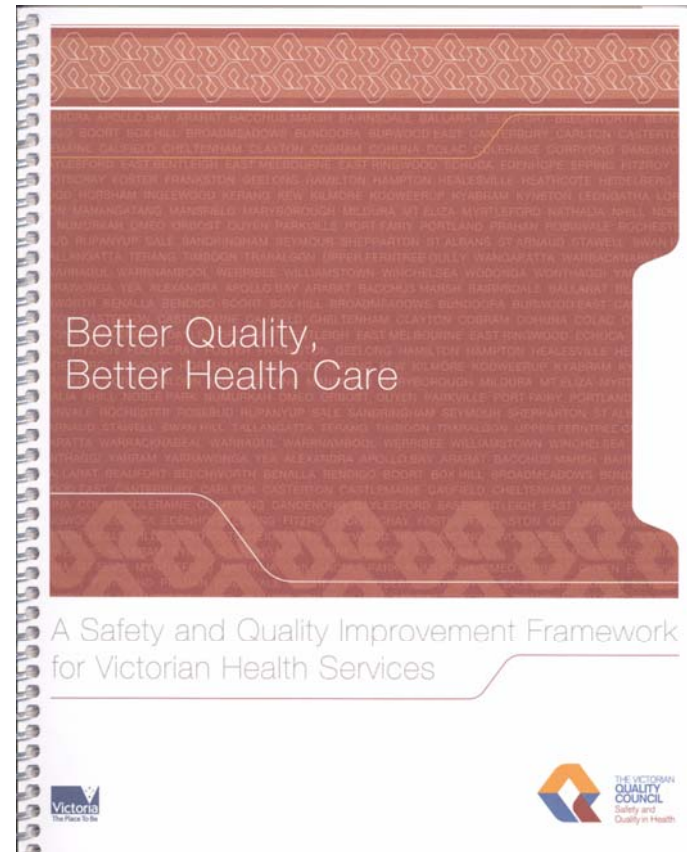
- areas of known risk
- tools and resources to support quality improvement (all available on the VQC website) and
- identifying new approaches to quality improvement

# VQC Safety and Quality Framework

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## *A safety and quality improvement framework for Victorian health services*

Key publication to assist health services implement a clinical governance framework.



# VQC Safety and Quality Framework

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- Dimensions of quality

- Safety
- Effectiveness
- Appropriateness
- Acceptability
- Access
- Efficiency

- Key organisational elements

- Governance and leadership
- Consumer involvement
- Competence and education
- Information management

*These need to be underpinned by organisational planning, support and role clarity.*

# Improving the quality of care

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## Safety:

- risk identification, monitoring and reduction
- response to adverse events and near misses
- reporting, learning and improving.

## Quality improvement (doing the same things better):

- identifying and communicating priorities for improvement – linked to strategic priorities, staff and patient perspectives
- developing a simple and valid methodology for undertaking and reporting improvement activities – eg, Plan Do Study Act (PDSA)

## Innovation (doing different things):

- providing opportunity for re-thinking and re-engineering

*Improvement of health care performance ‘hinges on changing the day-to-day decisions of doctors, nurses and other staff’*

*(Ham, 2003)*

# Reducing variation in practice

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*All improvement involves change but  
not all changes are improvement*

*(Batalden & Davidoff 2007)*

- Ensuring improvement requires
  - identifying the problem
  - identifying the best-practice model
  - implementing the model
  - measuring improvement
  - identifying variations

# Change management process

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- Communication
- Motivation & Resistance
- Evaluation
- Pilot
- Share results

*(Successfully Implementing Change, VQC, February 2006)*

# VQC evidence-based practice projects

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- Pressure Ulcer Prevention
- Falls minimisation
- Hand Hygiene
- VTE Prevention
- Acute Pain Management
- Clinical Handover
- Seclusion Practice (Mental Health)

# Pressure Ulcers (PU)



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An internationally recognised and largely preventable problem in clinical quality and safety

## Impacts:

- ✓ patients' length of stay
- ✓ cost of care
- quality of life
- ✓ morbidity and mortality
- efficiency
- efficiency
- acceptability
- effectiveness & safety

# VQC PU Prevention Strategy



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- Pressure Ulcer Point Prevalence Survey (PUPPS)
- Information for consumers
- Standardised risk assessment and management
- Standardised assessment and management
- Mattress Replacement Program
- Increase awareness of the issue
- Education & Skills development

# Pressure Ulcer Point Prevalence Survey (PUPPS)



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## Aim

- To ascertain the prevalence of PU in Victorian public hospitals
- To provide comparable data for benchmarking
- To inform an improvement program for the prevention of PU

## Method

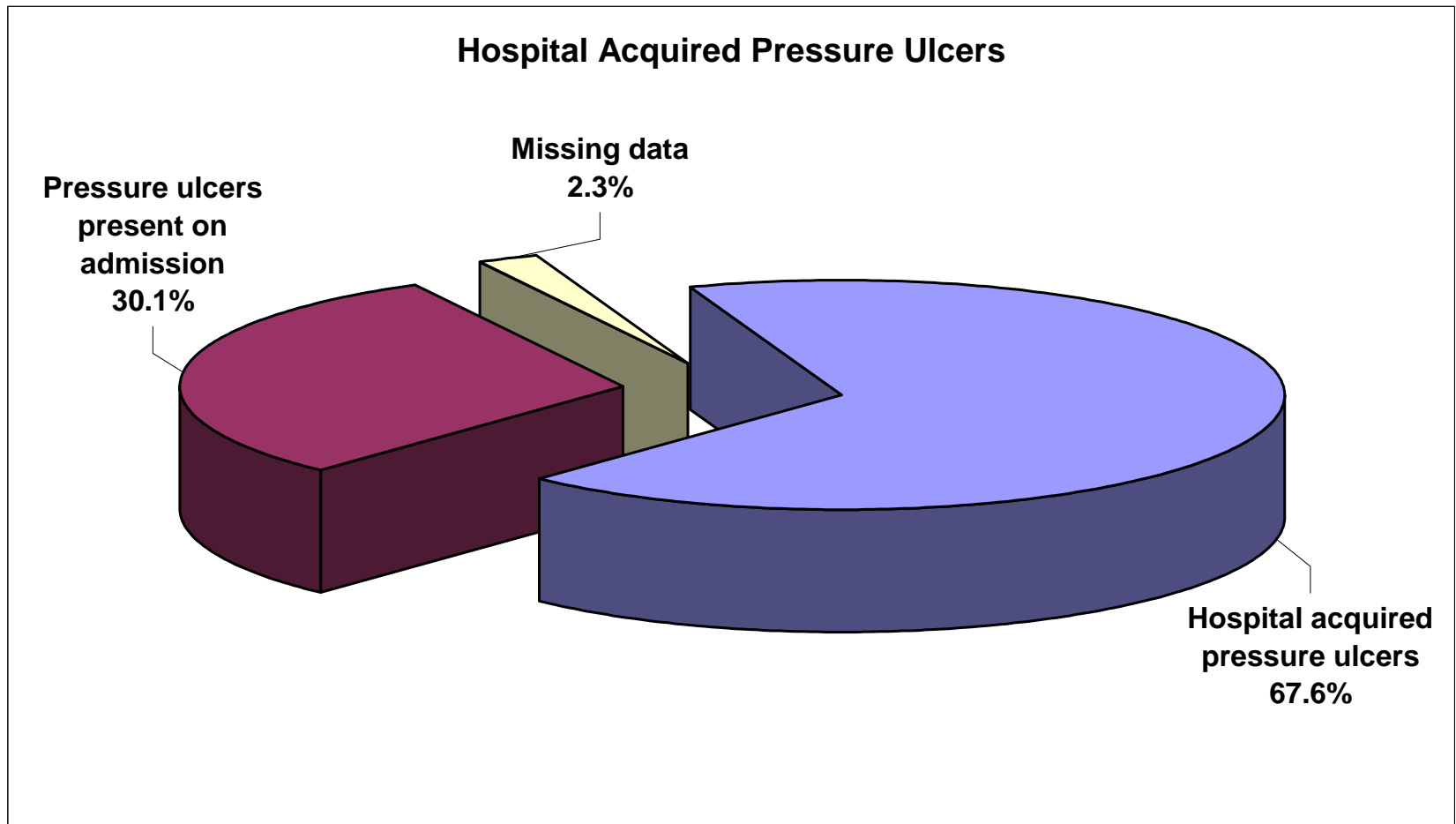
- Health services invited to participate
- Standardised process developed
- Surveyor education

# PUPPS Results



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Finding	Result
Pressure Ulcer Point Prevalence	26.5 %
PU risk assessment tool completed	40.9%
Pre-disposing PU risk factors	Immobility, renal failure, diabetes, age & smoking
Use of devices in patients with PU	66.1%
Hospital acquired PU	67.6%
Documentation of PU management	90.2%
Provision of information to patients regarding PU	4.2%



# Recommendations from PUPPS



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## Recommendations

- Use of best-practice guidelines
- Wound management resource
- Education for clinical staff
- Patient information
- Risk assessment for all patients
- Mattresses replacement
- PU incidence & prevalence be reported

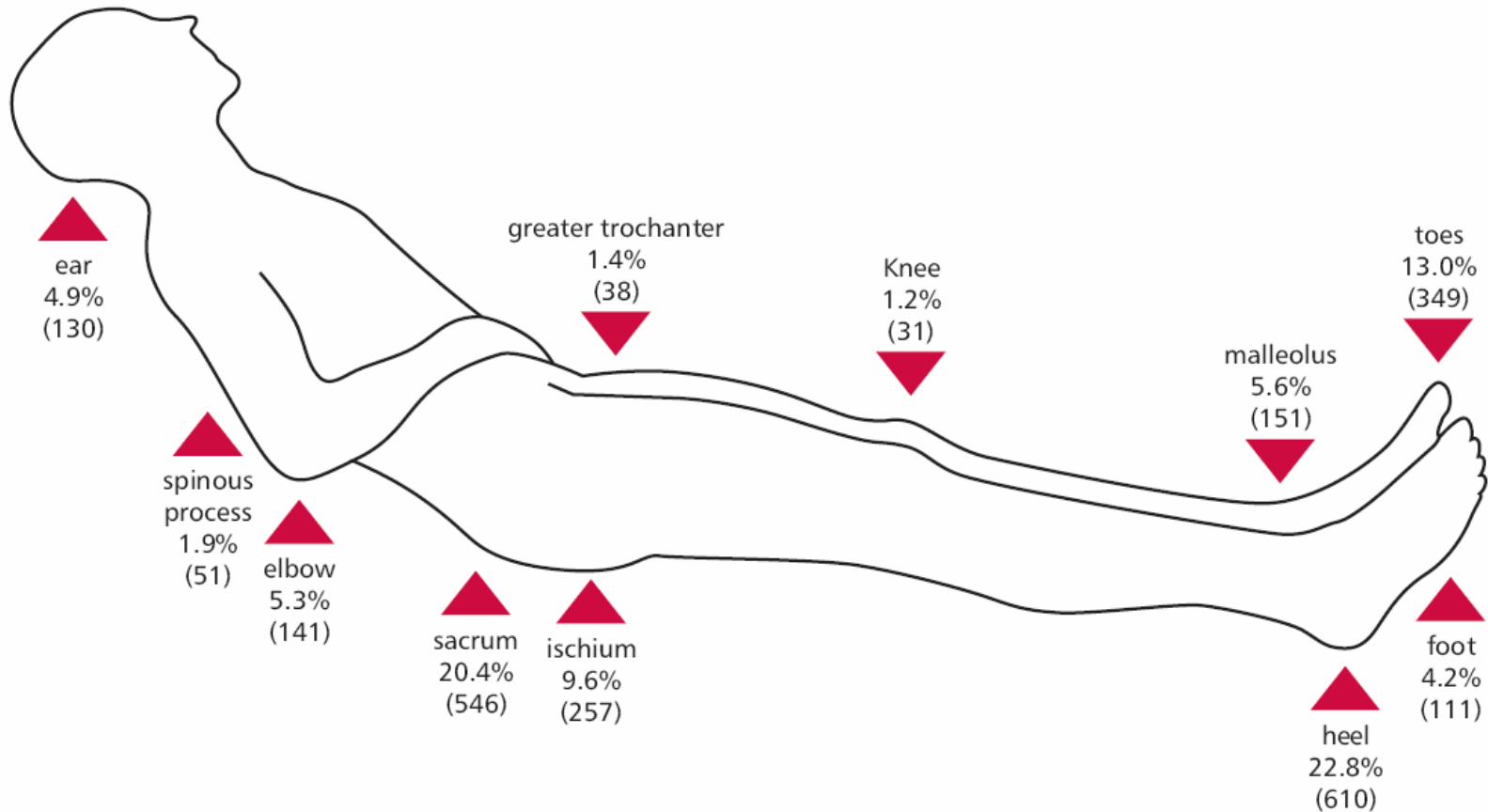
## VQC Actions

- Anatomical distribution of PU
- PUBBS online education
- PUBBS online education
- Move Move Move Brochure
- PUBBS online education
- Mattress replacement program
- PU reported in annual QCR

# Anatomical distribution of PU



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# Systematic reduction in PU prevalence



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## Recommendations

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## VQC Actions

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[Health home](#) > [Victorian Quality Council](#) > [Publications and resources](#) > [Improvement tools and reports](#) > [Pressure Ulcer Patient Information](#)

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- [Workshops and presentations](#)
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# Pressure Ulcer Patient Information

Page content: | [Overview](#) | [Download documents](#)

## Overview

Both staff and patients have a role to play in pressure ulcer prevention. Patients are increasingly encouraged to be more involved in their own care. Participating in informed choices and accountability for their health requires specific, consumer-focused information be available.

PUPPS found that there was a need to improve consumer understanding of pressure ulcer prevention and management:

“Written and verbal information on pressure ulcer prevention and management should be available for all patients and carers prior to, on or during their admission.”

In response to this recommendation VQC developed two patient information publications, now available in eleven languages:

## Download documents

### "Move, Move, Move"

A single page flyer aimed at all admissions as a quick, simple message on prevention. This can also be laminated for use as a poster or handout.

[Move, Move, Move - Arabic \(72kb .pdf\)](#)

[Move, Move, Move - Macedonian \(119kb .pdf\)](#)

[Return to Pressure Ulcers](#)

[Welcome](#) > [Menu](#) > [Module 1 – Understanding Pressure Ulcers](#) > [Topic 2: Skin Anatomy and Development of a Pressure Ulcer](#) > [Normal Functions of the Skin](#)

## Normal Functions of the Skin

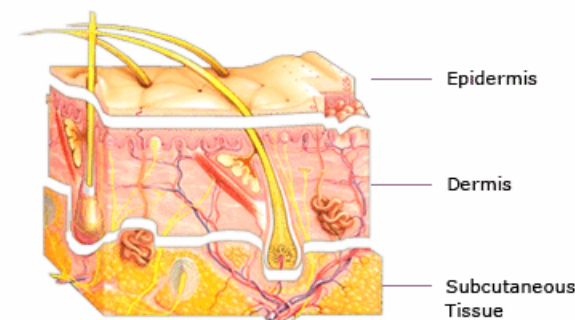
Skin is the largest organ of the body. Normal functions include:

- sensation and perception
- thermoregulation
- protection
- prevention of water loss
- excretion and secretion
- synthesis of Vitamin D.

As you can see within the picture of the skin cross-section, skin is comprised of three primary layers. Click on each of the skin layers in the picture for more information. These three layers are not an even thickness throughout the body. The skin thickness varies from 0.5 - 3mm, with the thickest skin being on the palms of hands and soles of feet. In general, the thicker the skin, the greater the ability to tolerate the effects of pressure.

Take a moment to compare the thickness and texture of the skin on your abdomen with skin on the sole of your foot.

Click on the **Next** button to continue.





## Feedback

- individual reports sent to participating health services
- de-identified combined results published and circulated state-wide

## Follow up

- survey repeated state-wide 12mths later
  - prevalence 20.8% (previously 26.5%)
- DHS Quality & Safety Branch assumed responsibility 2005
  - survey repeated 2006 and prevalence was 17.6%