

Reducing Harm: Focus on the Fundamentals



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ADVANCING NURSING THROUGH KNOWLEDGE & INNOVATION



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Disclosures

- ▲ Consultant-Michigan Hospital Association Keystone Center
- ▲ Subject matter expert on CAUTI, CLABSI, HAPI, Sepsis, Safety culture for HRET/AHA
- ▲ Consultant and speaker bureau
 - △ Stryker's Sage business
 - △ LaJolla Pharmaceutical
 - △ Potrero Medical
- ▲ Baxter Advisory Board

Objectives

- Describe the impact of patient harm and nurse's role in resuscitating the nursing care fundamentals to create a safer patient environment
- Define key nursing care interventions based on the evidence that can prevent patient harm



How Safe is Your Health Care Environment



WHO

- 1 out of 10 patients are harmed in hospitals in high income countries
- 134 million adverse events occur each year in hospitals in LMICs, contributing to 2.6 million deaths annually due to unsafe care
- Medication errors cost an estimated 42 billion USD annually



Outcomes of Missed Nursing Care: A Systematic Review

14 studies connecting missed nursing care with at least 1 patient outcome

△ Patient Satisfaction ↓

△ Lower quality of care reported by nurses with greater missed care

△ Clinical Outcomes

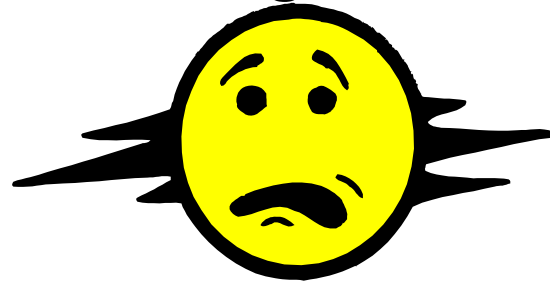
- Medication errors
- CLA-BSI's
- Pneumonia
- UTI's
- Pressure Injuries
- Falls
- Failure to rescue

5 nurse sensitive adverse events in 22 med-surg units added 1300 additional hospital days for 166 patients & \$ 600,000 in excess costs

Tchouaket E. JAN. 2017;73:1696

Missed Nursing Care

- Any aspect of required patient care that is omitted (either in part or whole) or significantly delayed.
- A predictor of patient outcomes
- Measures the process of nursing care



**SORRY WE
MISSED YOU!**

Hospital Variation in Missed Nursing Care

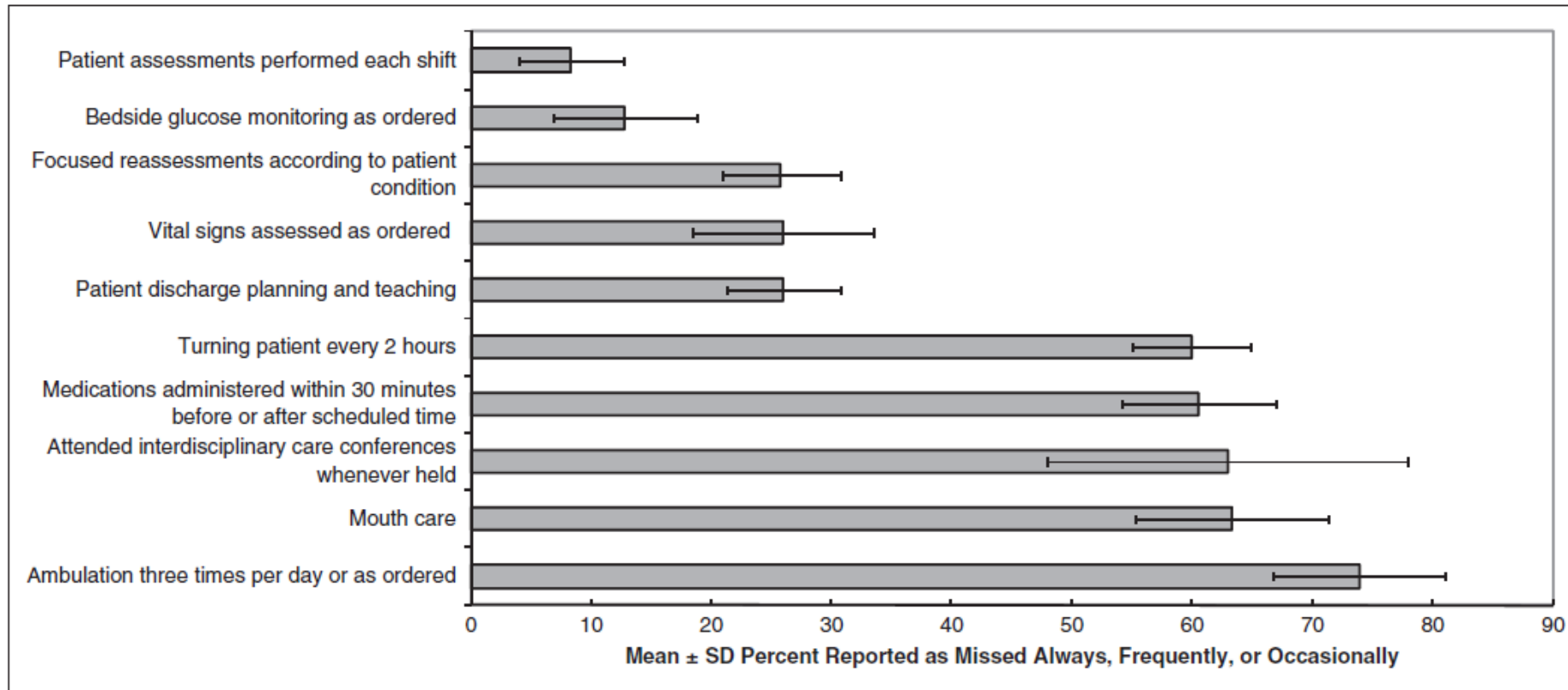
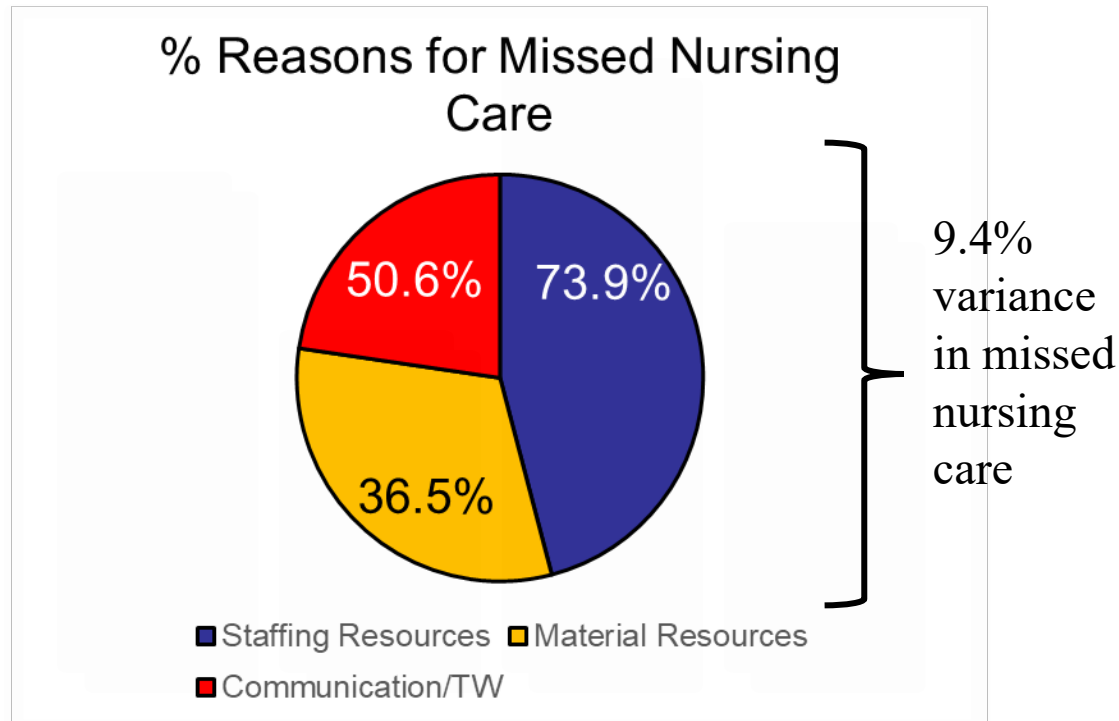


Figure 2. Elements of care most and least frequently missed. The solid bars represent the means across all 10 hospitals, and the range lines indicate the standard deviations.

Reasons for Missed Nursing Care



Qualitative Review

- △ Interruptions/multitasking/task switching
- △ Fatigue & physical exhaustion
- △ Cognitive biases
- △ Lack of patient & family engagement
- △ Lack of physician resources
- △ Leadership issues
- △ Moral distress & compassion fatigue
- △ Documentation load
- △ Large proportion of new nurses on unit
- △ Complacency

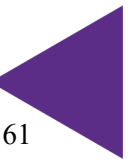
Challenging Practice environment correlates to missed nursing care

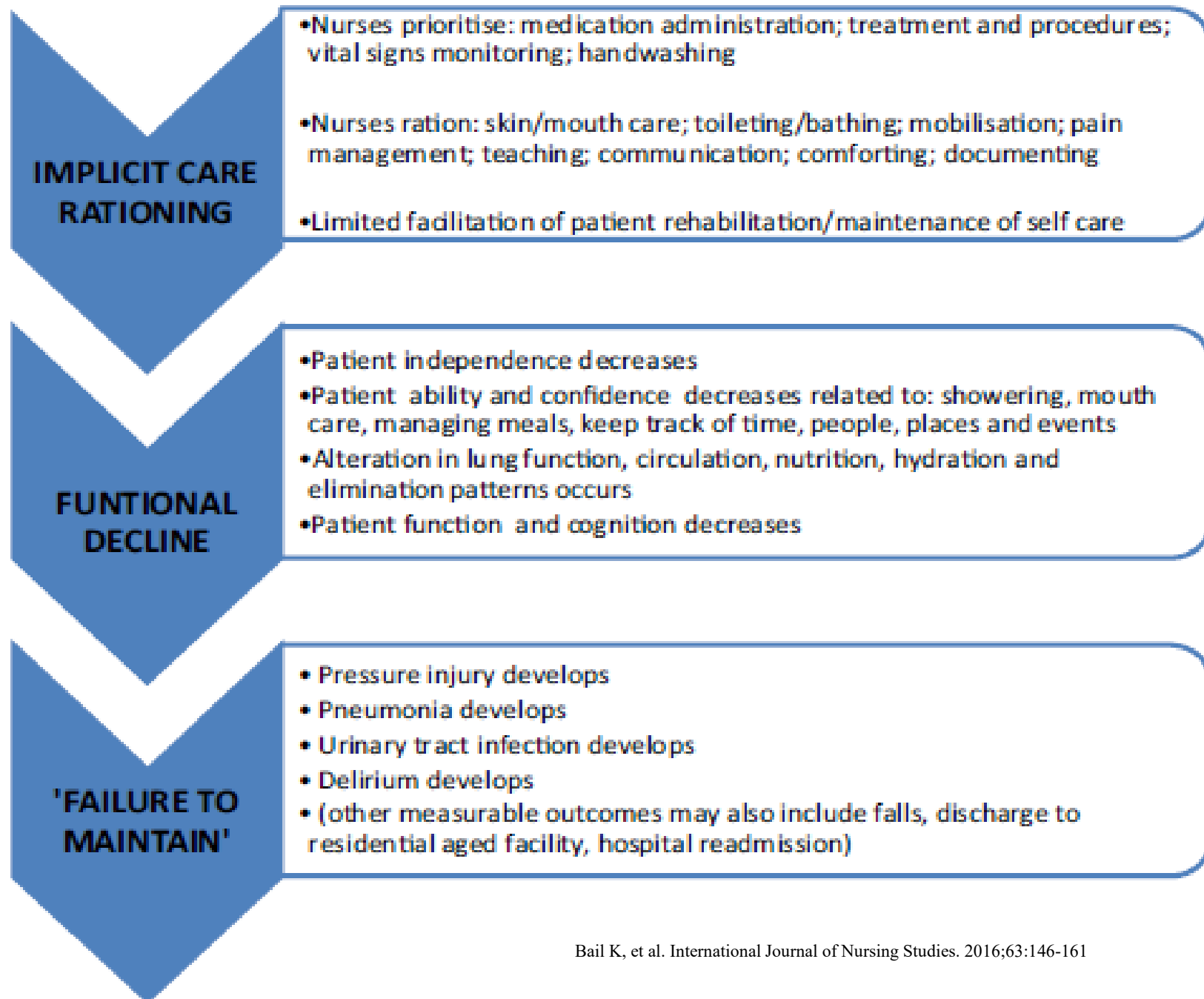
Rationing Care-How we Prioritize

- Highest priority activities for nurses
 - △ Those which are likely to have an immediate negative impact
 - Administering meds
 - Medical directed treatments
 - Procedures-wound dressings, labs
- Lower priority activities for nurses
 - △ Those which show no immediate negative harm
 - Ambulation
 - Oral hygiene
 - Emotional support
 - Teaching

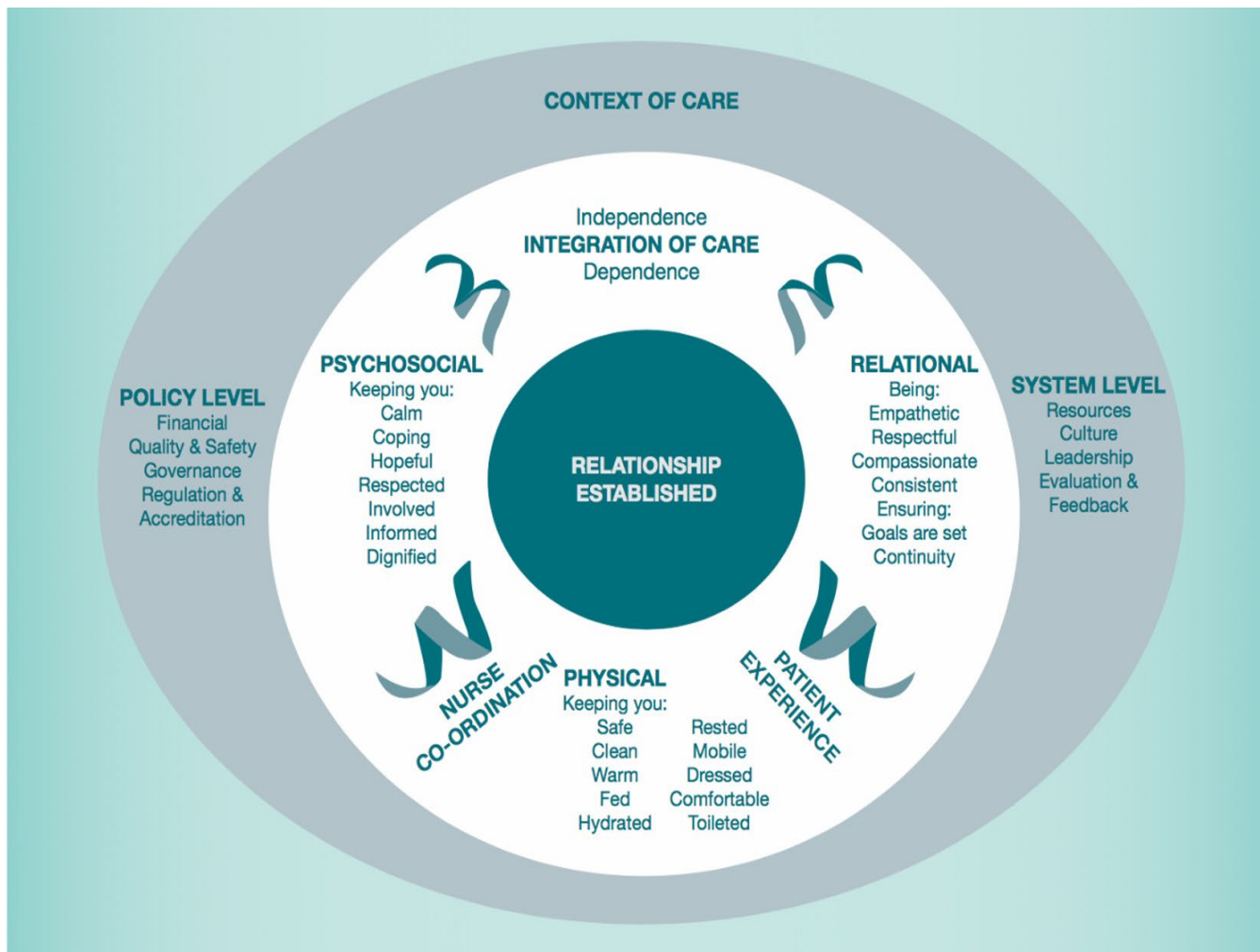


Rationing contributes to functional and cognitive decline





Fundamentals of Care Framework



- ▲ Fundamental care involves actions on the part of the nurse that respect and focus on a person's essential needs to ensure their physical & psychosocial wellbeing
- ▲ These needs are met by developing a positive & trusting relationship with the person being cared for as well as their families/carers

Reconnect With Our Professional Purpose



“It may seem a strange principle to enunciate as the very first requirement in a Hospital that it should do the sick no harm.”

Florence Nightingale

Advocacy = Safety



Protect The Patient From Bad Things
Happening on Your Watch



Implement
Interventional Patient Hygiene



Hand Hygiene

INTERVENTIONAL PATIENT HYGIENE

- ▲ Hygiene...the science and practice of the establishment and maintenance of health
- ▲ Interventional Patient Hygiene....nursing action plan directly focused on fortifying the patients host defense through proactive use of evidence-based hygiene care strategies

**Comprehensive
Oral Care Plan**

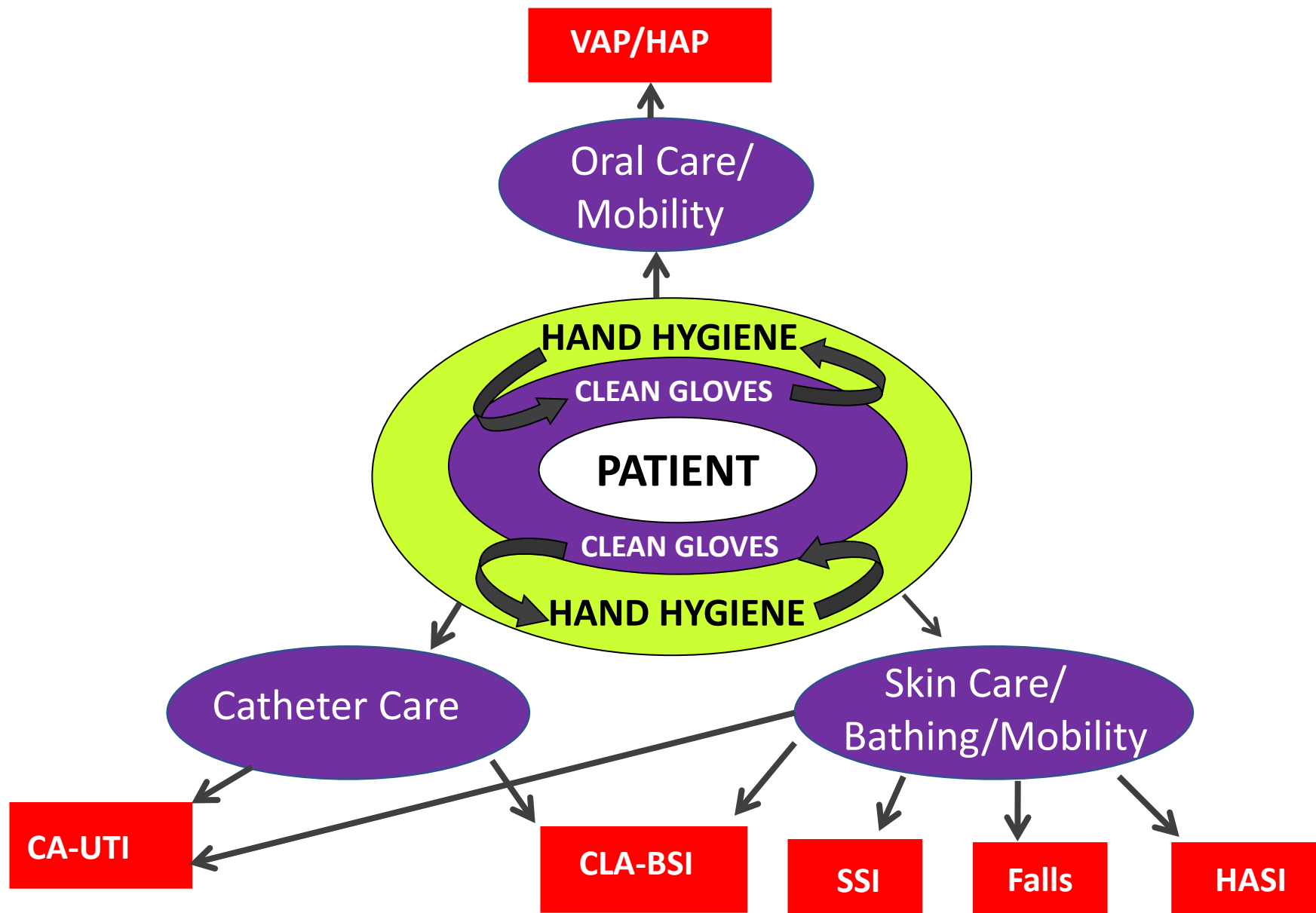
**Incontinence Associated
Dermatitis Prevention
Program**

**Pressure
Ulcer
Prevention**

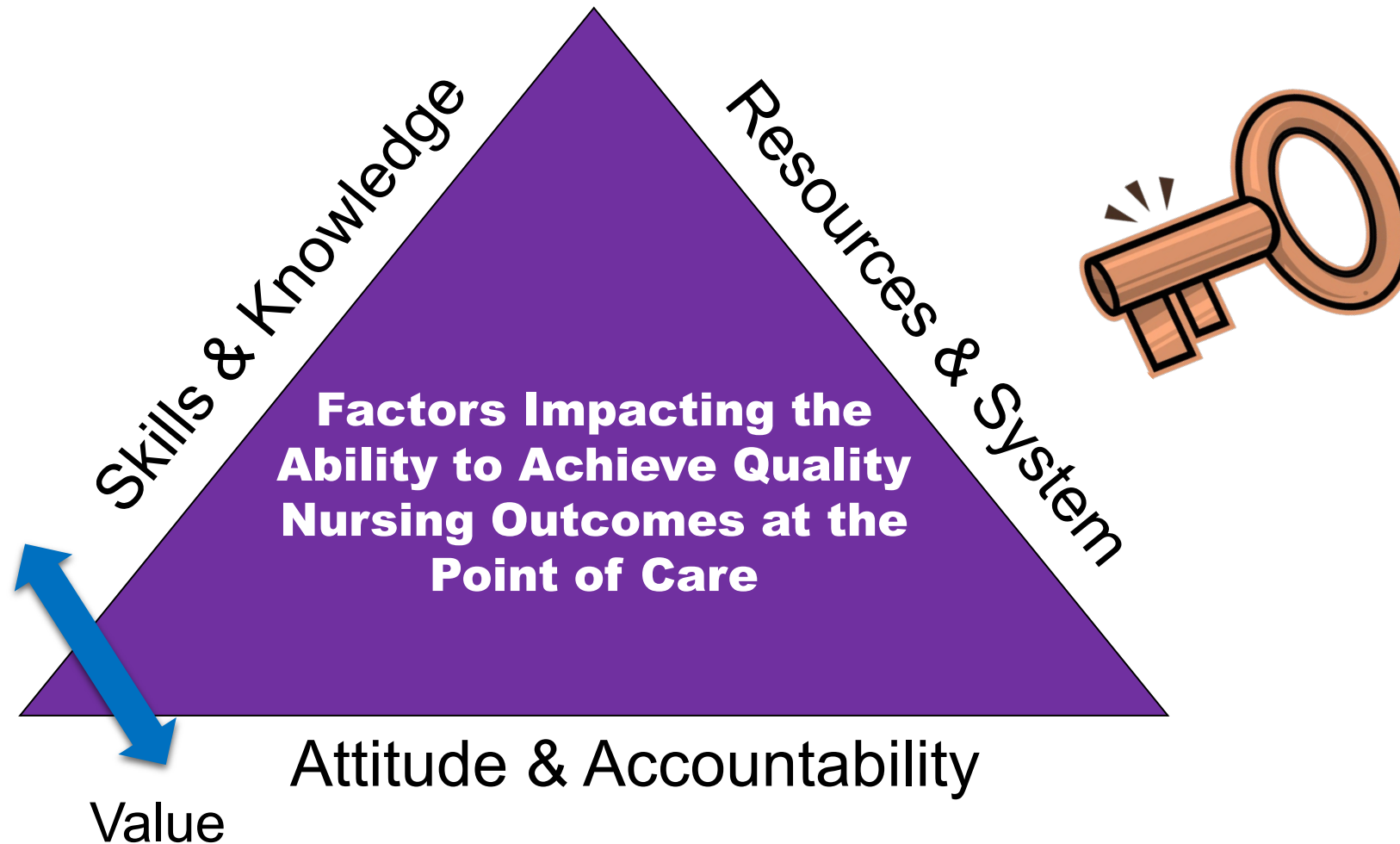
**Catheter
Care**

**Bathing &
Assessment**

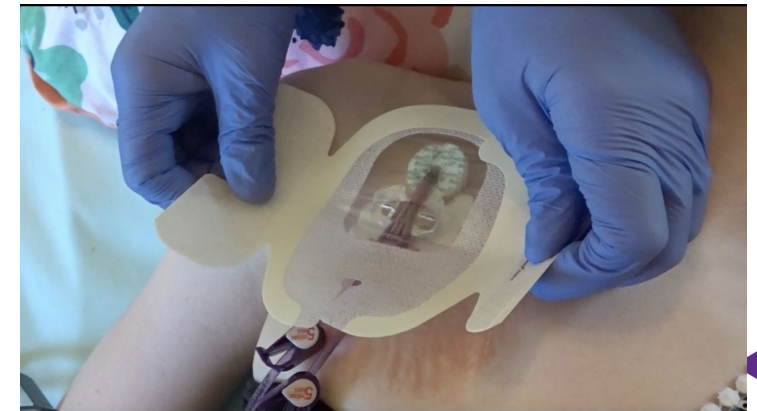
INTERVENTIONAL PATIENT HYGIENE(IPH)



Achieving the Use of the Evidence



Teamwork and Fundamental Nursing Interventions



Do we really see missed nursing care as patient harm?



Strategies to Link Harm with Nurse Patient Advocacy Role

- Do No Harm Rounding
- Immediate learn from a deficit
- Incorporate action plans and data into daily huddle

Learn from Defects Tool Worksheet CAUTI

Date: _____ Name _____

Attendees: _____ MRN _____ DOB _____

FILLED OUT BY IPCS

What happened? (brief description) Patient with documented CAUTI _____

Significant co-morbidities: _____

Location of CAUTI: ICU _____ Non-ICU _____ Date of Event _____

Where was the catheter inserted: OR ☐ ED ☐ ICU _____ Non-ICU _____

Age: _____ Sex: M ☐ F ☐

Culture appropriate? Y ☐ N ☐ UA with Rule for culture? Y ☐ N ☐

FILLED OUT BY NURSING

Why did it happen? (what factors contributed) - summarize what happened to cause the defect from below

1) Did the patient meet clinical indications for insertion? Yes ☐ No ☐
If Yes, list indication _____

2) Was there an unplanned catheter removal? Yes ☐ No ☐

3) Was the catheter bag changed / seal unbroken? Yes ☐ No ☐
☐ Intra-abdominal pressure monitoring
☐ Temperature foley present
☐ Patient transferred to higher level of care with foley in place

4) Daily medical necessity documented? Yes ☐ No ☐
Critically ill (did pt. require hourly urine output) ☐
Comfort care ☐
Urological / perineal procedure ☐
Stage 3 or greater pressure ulcer in perineal area w urinary or fecal incontinence ☐
Immobility (such as spinal cord/ pelvic/ sacral trauma) ☐
Neurogenic bladder ☐

5) Daily Foley care/ peri care performed? Yes ☐ No ☐

6) Why was culture ordered? PAN culture ☐ (PAN Order, Date/Time _____) Pt. Febrile ☐
Urinary Symptoms ☐ Urine clarity/ odor ☐ Other _____

7) Fecal incontinence? Yes ☐ No ☐

- 8) High volume with bladder scanning (greater 300ml) Yes ☐ No ☐ N/A ☐
- 9) Catheter flushed? Yes ☐ No ☐
- 10) Patient on antibiotics prior to urine culture? Yes ☐ No ☐
- 11) Other: _____

+	-
What prevented it from being worse?	What happened to cause the defect?
1) If patient is still on unit and can be seen	Duration of catheter # days: (Time of insert to discontinue)
a) Green clip in use? Yes <input type="checkbox"/> No <input type="checkbox"/>	
b) Bag below the bladder? Yes <input type="checkbox"/> No <input type="checkbox"/>	Time from catheter insertion until urine culture obtained:
c) No loops (straight)? Yes <input type="checkbox"/> No <input type="checkbox"/>	Is the patient being treated for any other infections?
d) Bag not on floor – or is on bucket? Yes <input type="checkbox"/> No <input type="checkbox"/>	
e) Unbroken seal? Yes <input type="checkbox"/> No <input type="checkbox"/>	
f) Catheter secured? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Did we try an alternative to control incontinence? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
Was nurse driven catheter removal protocol used? Yes <input type="checkbox"/> No <input type="checkbox"/>	

What can we do to reduce the risk of it happening with a different person?			
Action Plan	Responsible Person	Targeted Date	Evaluation Plan – How will we know risk is reduced?
With whom shall we share our learning? (Communication plan)			
Who	When	How	Follow up

Traditional Bathing



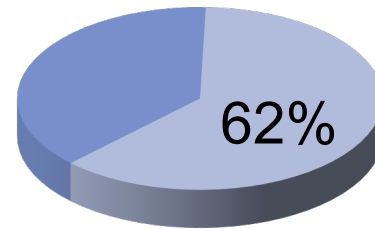
Why are there
so many bugs
in here?

Soap and water basin bath was an independent predictor for the development of a CLABSI

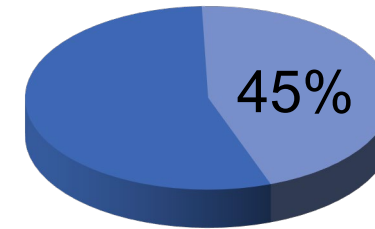
Bath Basins: Potential Source of Infection

Large multi-center study evaluates presence of multi-drug resistant organisms

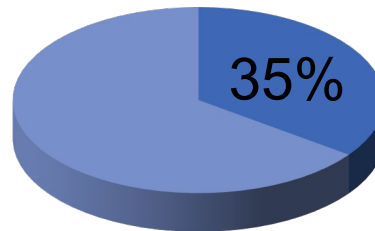
Total hospitals: 88
Total basins: 1,103



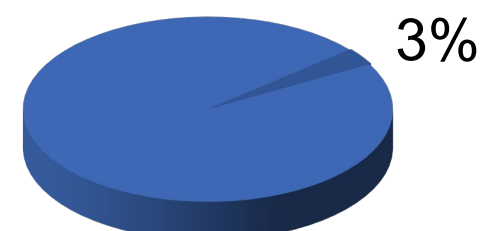
Contaminated
686 basins/88 Hospital



Gram negative bacilli
495 basins/86 hospitals



Colonized w/ VRE
385 basins/ 80 hospitals



MRSA
36 basins/28 hospitals

Mechanisms of Contamination

🔗 Skin flora

🔗 Multiple-use basins

△ Incontinence cleansing

△ Emesis

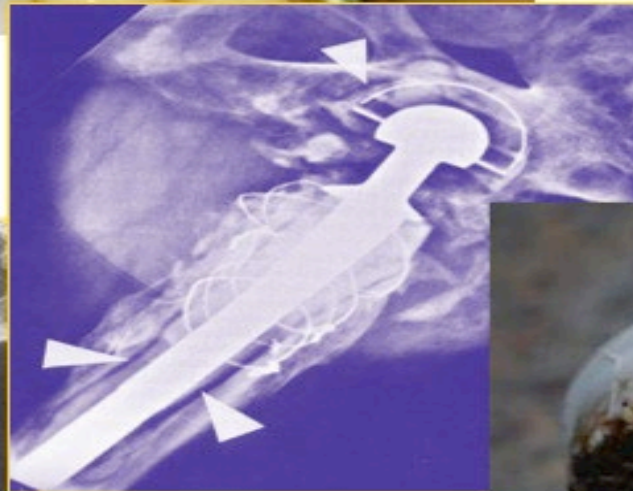
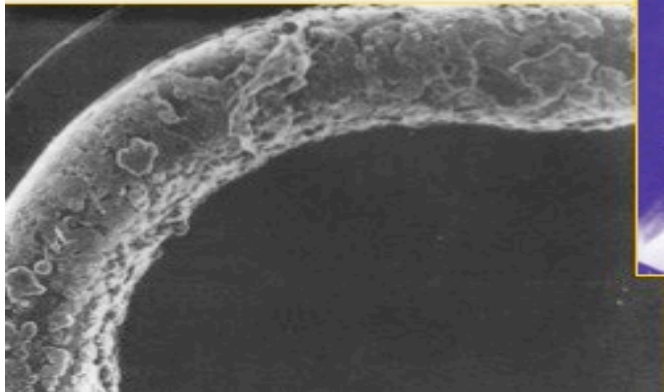
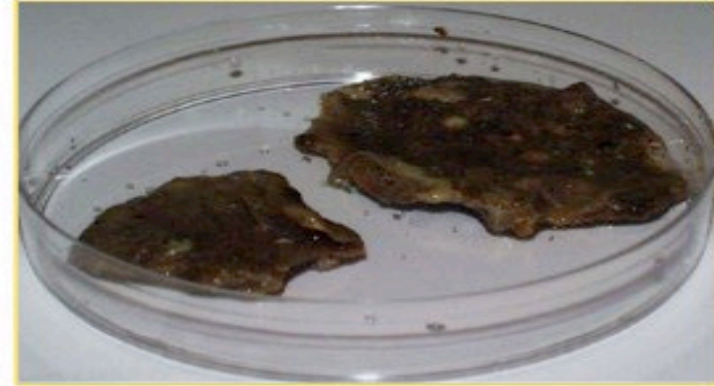
△ Product storage

🔗 Bacterial biofilm from tap water



Shannon RJ, et al. *J Health Care Safety Compliance Infect Control*. 1999;3:180-184.
Larson EL, et al. *J Clin Microbiol*. 1986;23(3):604-608.
Johnson D, et al. *Am J Crit Care*, 2009;18(1):31-38, 41.
Marchaim D, et al. *Am J Infect Control*. 2012;40(6):562-564.
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Biofilms are Ubiquitous



Understanding Water

- 🔗 All water with the exception of sterile water and filtered water is contaminated with microbes (eg, potable water, tap water, showers, and ice).
- 🔗 In healthy persons, contact or ingestion of such water rarely leads to infection.
- 🔗 However, contact or ingestion of such water may cause infection in immunocompromised persons or when applied to non-intact skin
- 🔗 Transmission of these pathogens from a water reservoir may occur by direct and indirect contact, ingestion and aspiration of contaminated water, or inhalation of aerosols*
- 🔗 Compared sink & water based care activities to non sink and non water based care activities on GNB colonization in ICU. Found rate dropped from 26.1 to 21.6 colonization pre 1000 ICU days. ↑ reduction with longer ICU LOS's

Waterborne Infection

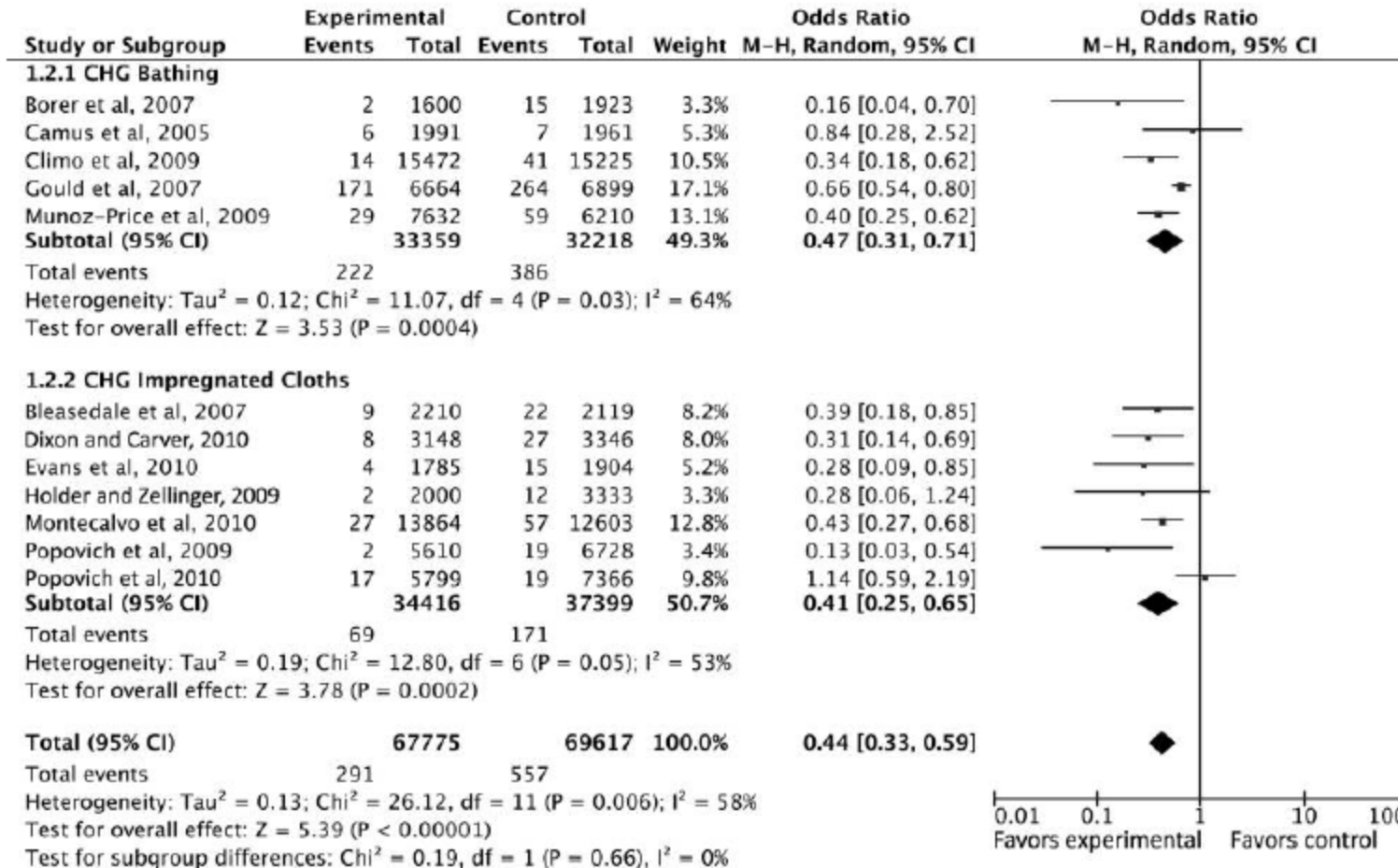
Hospital Tap Water

- 🔗 Bacterial biofilm
- 🔗 Most overlooked source for pathogens
- 🔗 29 studies demonstrate an association with HAIs and outbreaks
- 🔗 Transmission:
 - △ Drinking
 - △ Sinks
 - △ Bathing
 - △ Rinsing items
 - △ Contaminated environmental surfaces
 - △ Contaminated ice machines
- 🔗 Immunocompromised patients at greatest risk



The Efficacy of Daily Bathing with Chlorhexidine for Reducing Healthcare-Associated Bloodstream Infections: A Meta-analysis

John C. O'Horo, MD;¹ Germana L. M. Silva, MD;² L. Silvia Munoz-Price, MD;³ Nasia Safdar, MD, PhD⁴



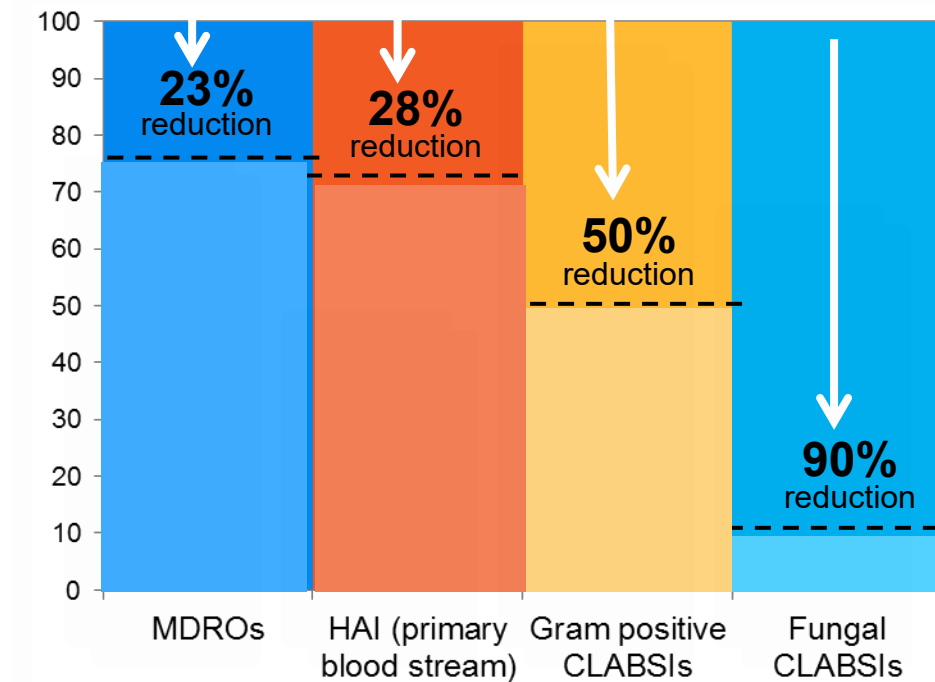
The Evidence: Impact of Antisepsis Bathing

Evaluate effect of daily bathing with CHG on acquisition of MDRO's and incidence of CLABSI

**9ICU's & Bone Marrow
Transplant unit
Randomly assigned 7727
patient:**

- a. No-rinse, Antisepsis washcloths
- b. Non-antimicrobial, no-rinse bath cloths

Results of 2% CHG bathing



Impact of Antisepsis Baths

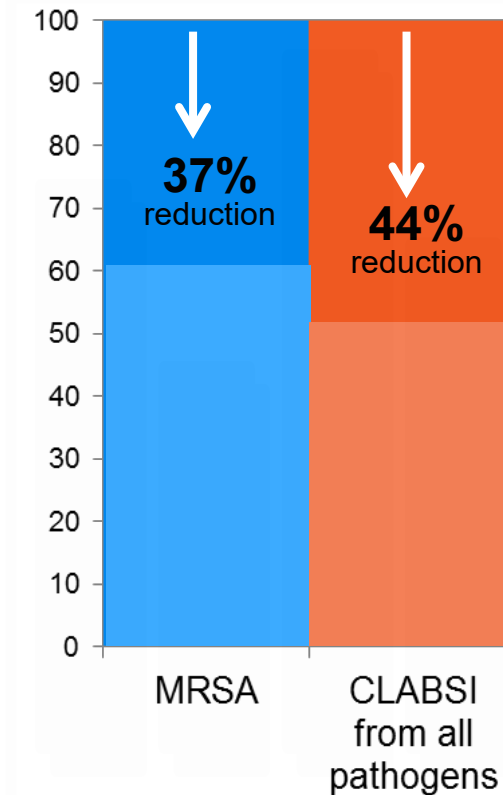
Study to determine the best method for reducing spread of MRSA & MDROs

3 protocols tested:

- a) Swab for MRSA on admission to ICU
 - △ Isolate if positive
- b) Swab for MRSA on admission to ICU
 - △ Isolate if positive
 - △ Nasal mucopiricin x 5 days
 - △ antisepsis bathing for entire ICU stay
- c) No swab
 - △ Nasal mucopiricin x 5 days
 - △ Antisepsis bath for entire ICU stay



Results: **No Swab Group**
Universal Decolonization
Demonstrated



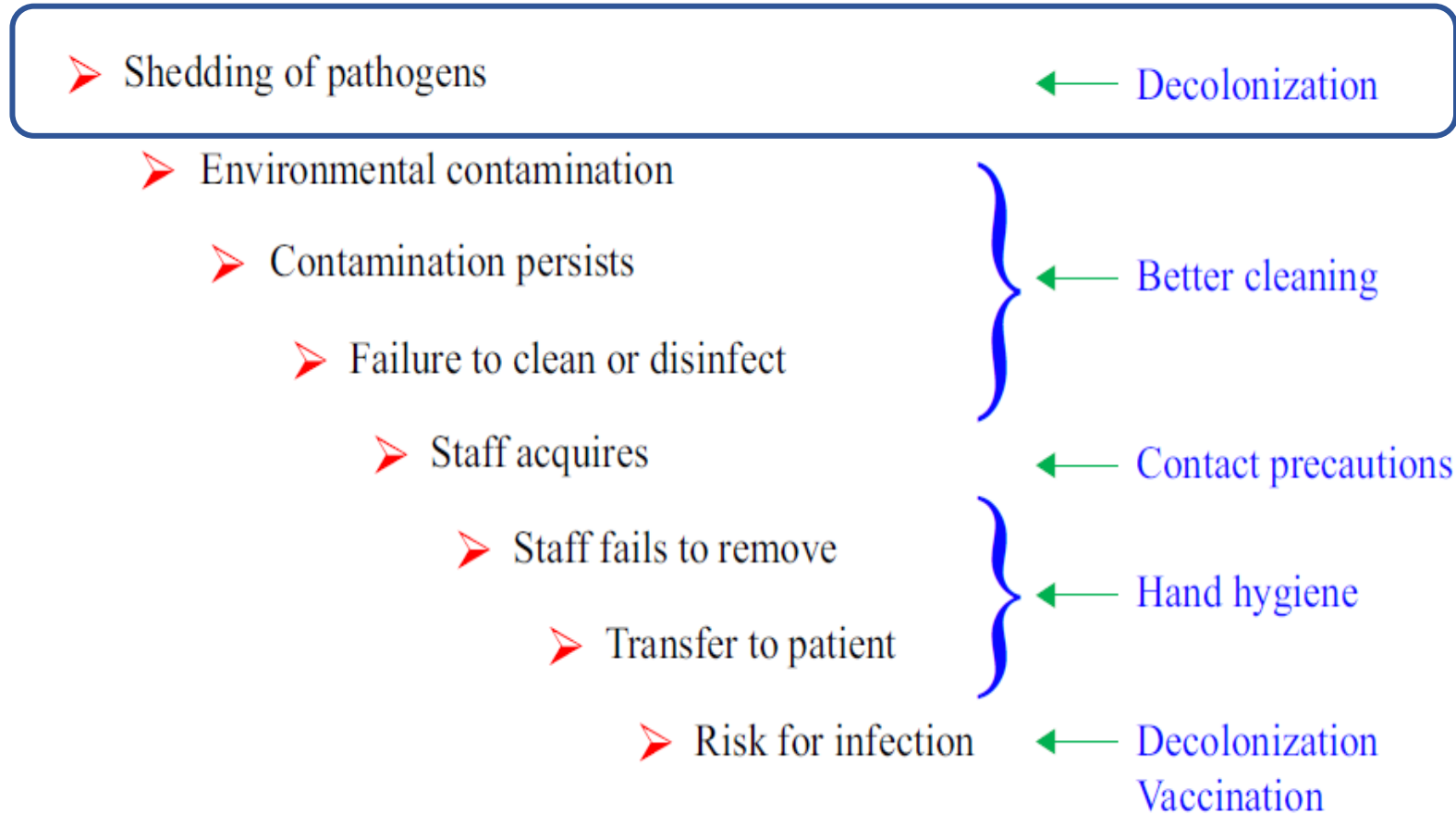
Antisepsis vs. Routine Bathing to Prevent MDRO and CLABSI in General Medical & Surgical Units

- 53 hospitals in 14 states
- Compared routine bathing (non-medicated disposable cloth or showering) to decolonization with universal chlorhexidine and targeted nasal mupirocin in non-critical-care units.
- 12-month baseline period, 2 month phase, 21 month intervention

Decolonization with universal chlorhexidine bathing and targeted mupirocin for MRSA carriers did not significantly reduce multidrug-resistant organisms in non-critical-care patients

Patients with medical devices had a 32% greater reduction in all cause bacteremia and a 37% greater reduction in MRSA or VRE clinical cultures compared with the routine care group

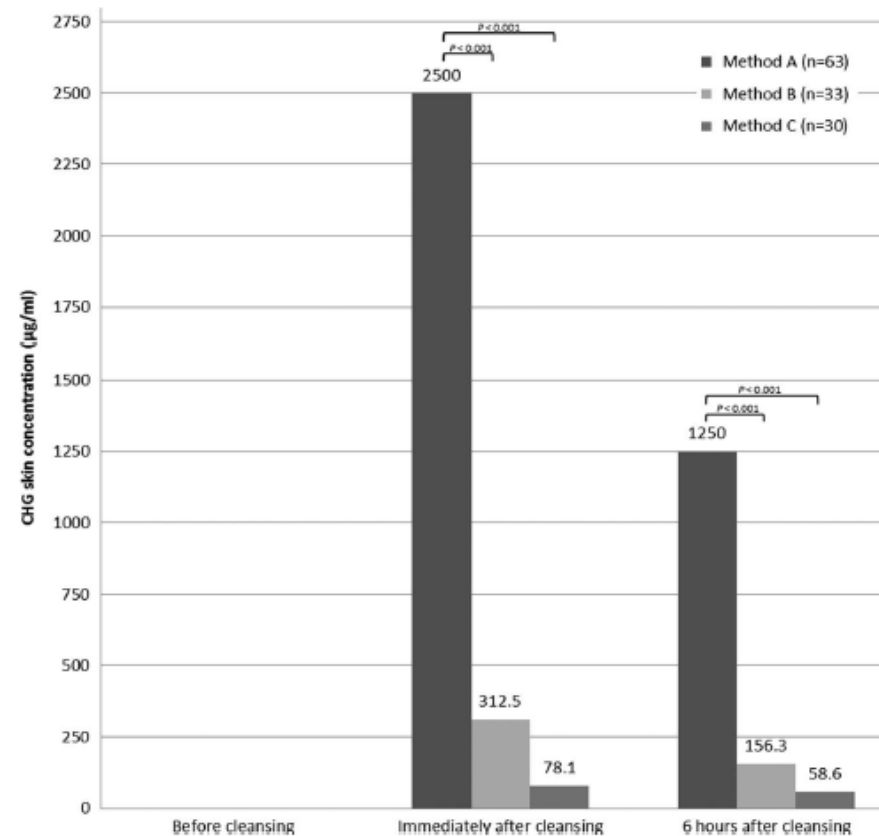
CHG Bathing: Works Upstream



Differential Effects of Antisepsis Skin Cleansing Methods

Rhee Y, et al. Infect Control Hosp Epidemiol 2018;39:405–411

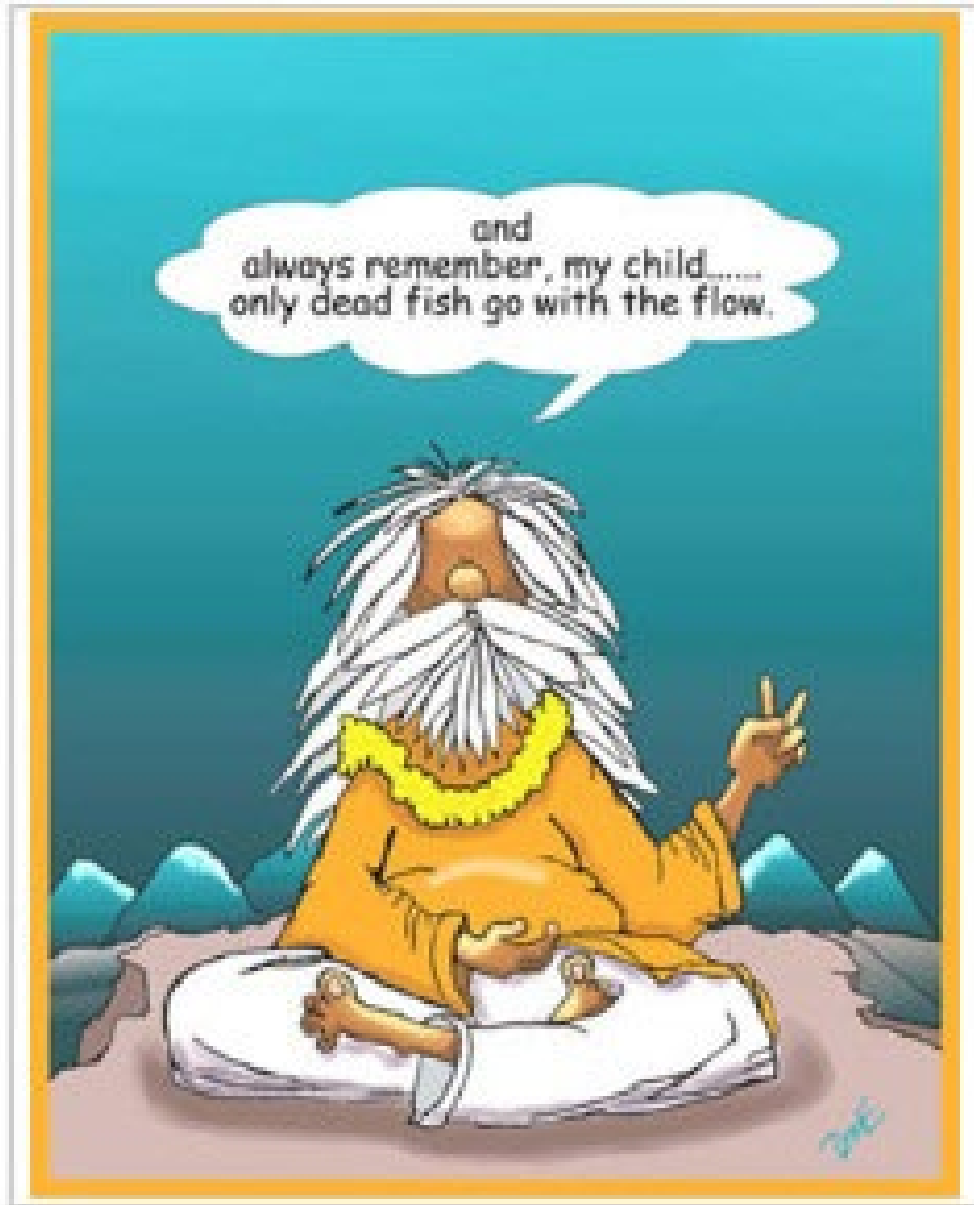
- ▶ Prospective, randomized 2-center study with blinded assessment.
- ▶ To determine whether 3 different CHG skin cleansing methods yield similar residual CHG concentrations and bacterial densities on skin.

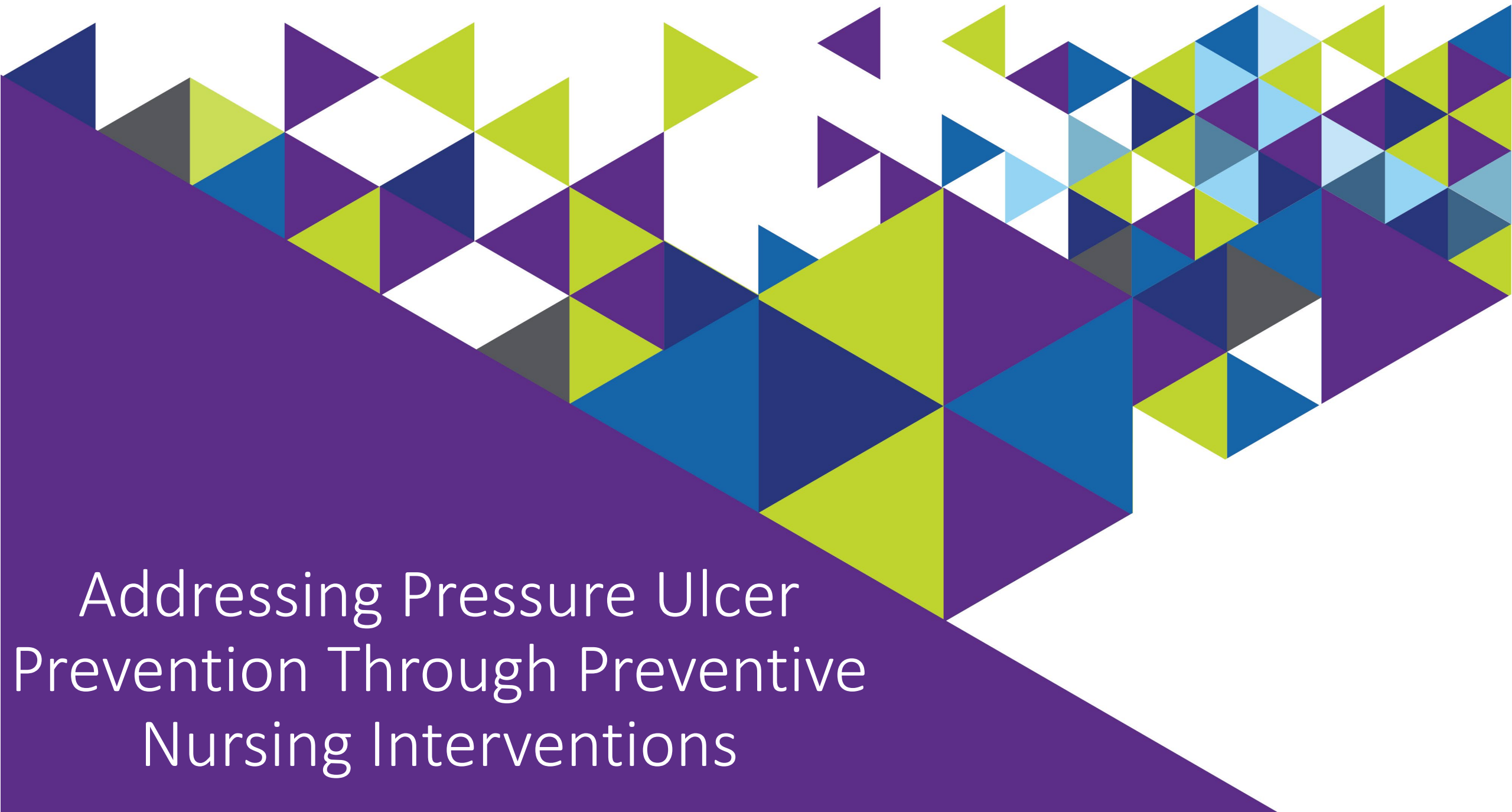


Method A- 2% CHG cloth

Method B- 4% CHG liquid poured onto non-medicated cloth

Method C-4% CHG liquid on cotton wash cloth





Addressing Pressure Ulcer Prevention Through Preventive Nursing Interventions

DecubICUs Study: International Prevalence, Risk & Outcomes



Methodology

- △ International 1-day prevalence
- △ Follow up for outcome assessment until hospital d/c
- △ Assess factors associated with ICU acquired pressure injuries
- △ Hospital mortality

Risk factors for ICU acquired PI

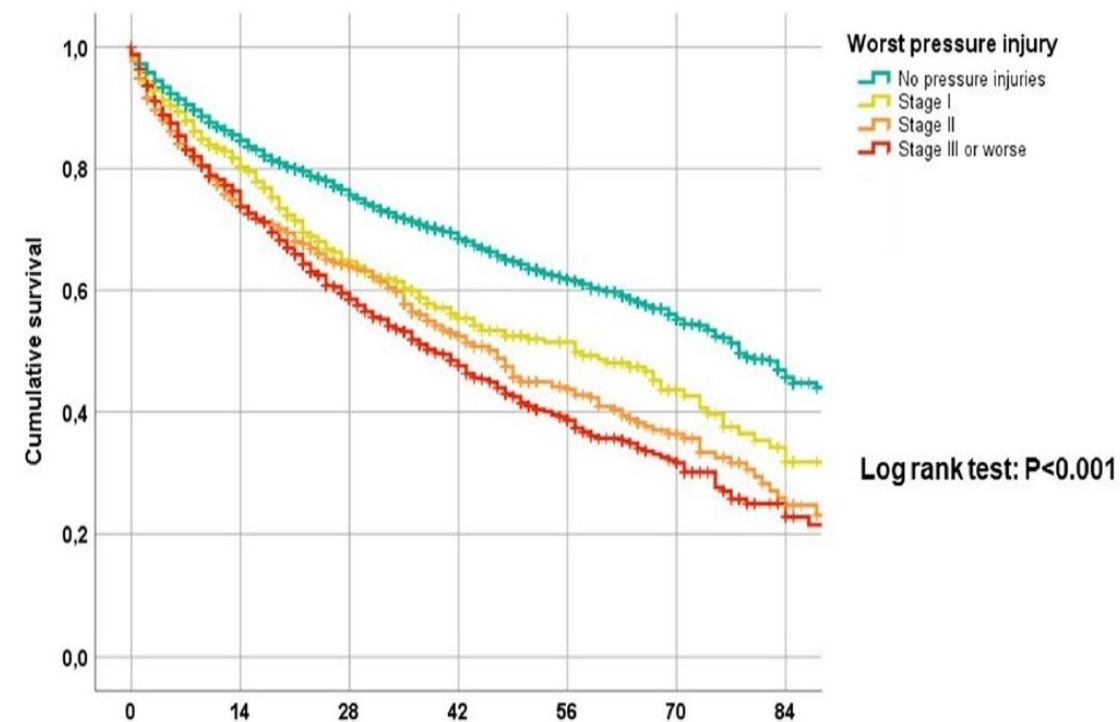
- △ Older age
- △ Male
- △ Under weight
- △ Emergency surgery
- △ Higher APACHE score
- △ Braden >19
- △ ICU stay > 3days
- △ Organ support (MV, CRRT)



DecubICUs Study: International Prevalence, Risk & Outcomes



	All <i>n</i> = 13,254	Europe <i>n</i> = 5632	North America <i>n</i> = 1507
	<i>Number of patients (percentage) 95% confidence interval</i>		
Overall prevalence	3526 (26.6) 25.9–27.3	1630 (28.9) 27.8–30.1	344 (22.8) 20.8–25
ICU-acquired prevalence	2145 (16.2) 15.6–16.8	1124 (20) 18.9–21	200 (13.3) 11.7–15.1
Proportion ICU-acquired prevalence (%)	60.8	69.0	58.1



Hospital length of stay after study day (days)							
NO. AT RISK							
No pressure injuries	8878	5005	2775	1669	1037	650	419
Stage I	1031	739	444	275	176	126	85
Stage II	1061	843	612	421	280	193	137
Stage III or worse	1031	876	663	491	348	246	178

Identify Patients at High Risk



Picking the Right Scale

Scales (cut-off)	Sensitivity Median (range)	Specificity Median (range)	Positive likelihood ratio	Negative likelihood ratio	AUROC Median (range)	Relative Risk (95% CI)
Braden (≤ 18) ^{118,135}	0.74 ^a (0.33 to 1)	0.68 ^a (0.34 to 0.86)	2.31 ^a	0.38 ^a	0.77 ^b (0.55 to 0.88)	4.26 ^f (3.27 to 5.55)
Norton (≤ 14) ^{118,135}	0.75 ^c (0 to 0.89)	0.68 ^c (0.59 to 0.95)	2.34 ^c	0.37 ^c	0.74 ^c (0.56 to 0.75)	3.69 ^g (2.64 to 5.16)
Waterlow (≥ 10) ^{118,135}	1.00, 0.88 ^d	0.13, 0.29 ^d	1.15, 1.24 ^d	0.0, 0.41 ^d	0.61 ^e (0.54 to 0.66)	2.66 ^h (1.76 to 4.01)
Cubbin-Jackson (≤ 24) ^{135,145}	0.72 ⁱ	0.68 ⁱ	—	—	0.763 ^j	8.63 ^k (3.02 to 24.66)
SCIPUS (≥ 8) ¹³⁰	0.85 ^m	0.38 ^m	1.4 ^m	—	0.64 ^m (0.59 to 0.70)	—
Braden Q (≤ 13) ¹⁵²	0.86 ^p (0.76 to 0.96)	0.59 ^p (0.55 to 0.63)	2.09 ^p (0.95 to 4.58)	—	0.72 ^p (0.76 to 0.78)	—

^a16 studies, n=5,462
^d2 studies, n=419
^g15 studies, n=4,935
^k2 studies, n=151

^b7 studies, n=4,811
^e4 studies, n=2,559
^h12 studies, n=2,408
^m1 study (n=759)

^c5 studies, n=2,809
^f31 studies, n=7,137
^j1 study, n=829
^p1 study, n=625

Newer Scales

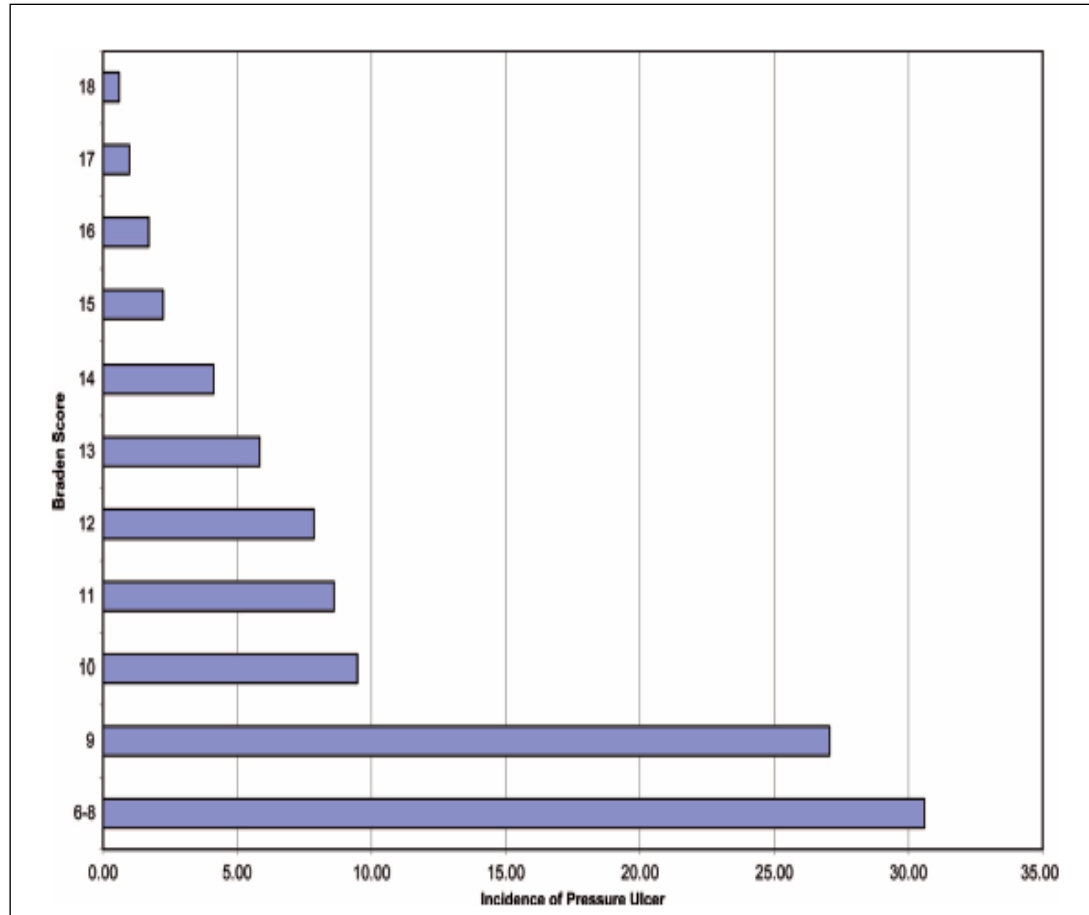
- △ Risk Assessment Pressure Ulcer Scale (RAPS-ICU)
- △ Current Risk Assessment Scale for Pressure injury in Intensive Care scale (EVARUCI scale)
- △ Conscious level-Mobility-Haemodynamics-Oxygenation-Nutrition Index (COMHON)

It's About the Sub-Scales If Braden Used

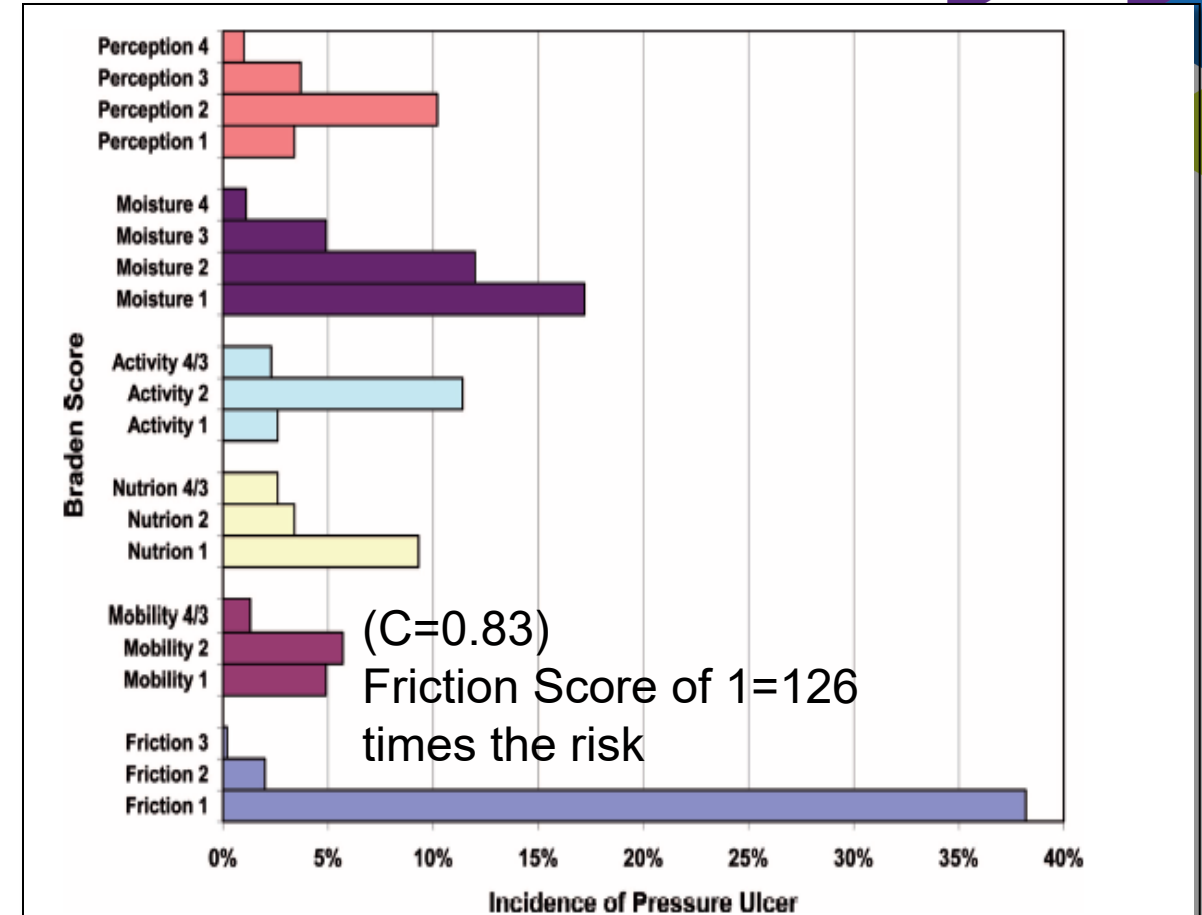


- Retrospective cohort analysis of 12,566 adult patients in progressive & ICU settings for yr. 2007
- Identifying patients with HAPU Stage 2-4
- Data extracted: Demographic, Braden score, Braden subscales on admission, LOS, ICU LOS, presence of Acute respiratory and renal failure
- Calculated time to event, # of HAPU's
- Results:
 - 3.3% developed a HAPU
 - Total Braden score predictive (C=.71)
 - Subscales predictive (C=.83)

Braden Score



Braden Sub-Scales



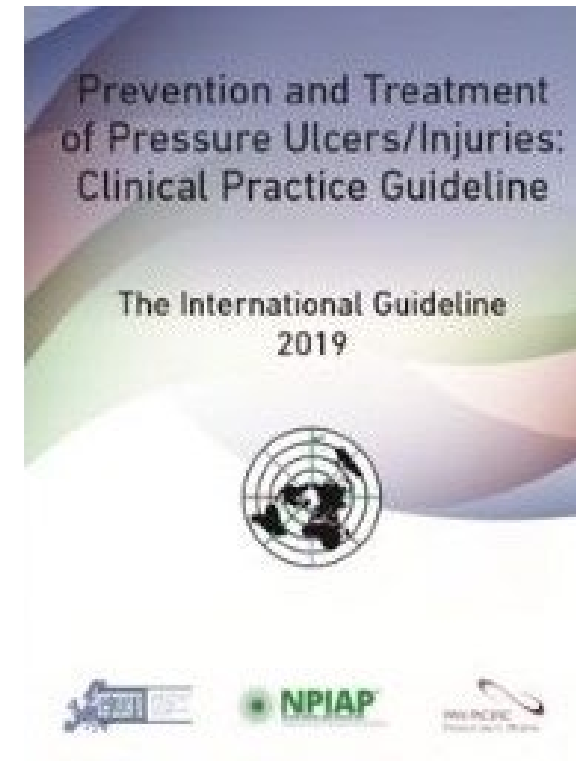
Multivariate model included 5 Braden subscales, surgery and acute respiratory failure
C=0.91 (Mobility, Activity and sensory perception more predictive when combined with moisture or shear and friction)

Pressure & Shear as a Risk Factor



EBP Recommendations to Achieve Offloading & Reduce Pressure

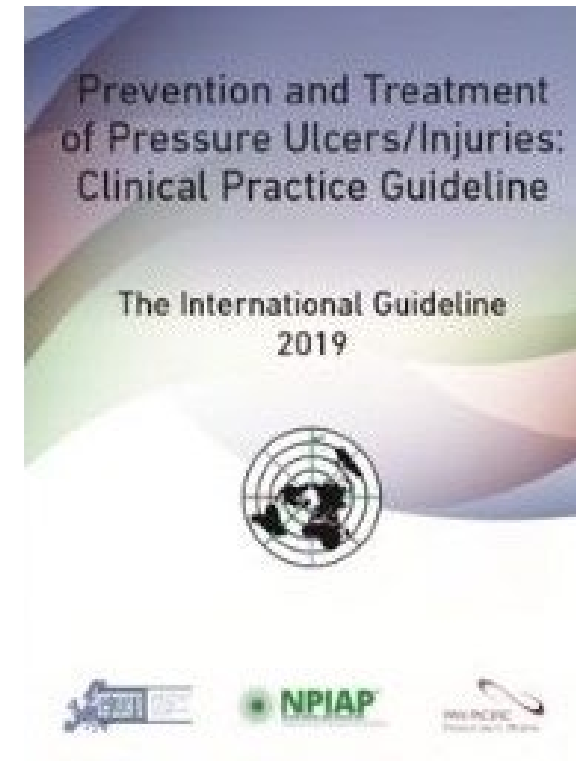
- 🔄 Turn & reposition every (2) hours (avoid positioning patients on a pressure ulcer)
 - △ Repositioning should be undertaken to reduce the duration & magnitude of pressure over vulnerable areas⁴
 - △ Consider right surface with right frequency^{1,4}
 - △ Cushioning devices to maintain alignment /30° side-lying & prevent pressure on bony prominences^{1,2}
 - Between pillows and wedges, the wedge system was more effective in reducing pressure in the sacral area (healthy subjects)
 - Between pillows and wedges, wedges maintain lateral position better
 - △ Assess whether actual offloading has occurred⁴
 - △ Use lifting device or other aids to reposition & make it easy to achieve the turn⁴



1. McNichol L, et al. J Wound Ostomy Continence Nurse, 2015;42(1):19-37.
2. Bush T, et al. WOCN, 2015;42(4):338-345
3. Kapp S, et al. Int Wound J. 2019;1-7
4. European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, and Pan Pacific Pressure Injury Alliance. Prevention & treatment of pressure ulcers/injuries :Clinical Practice Guideline. Emily Haesler (Ed). EPUAP/NPIAP/PPPIA. 2019

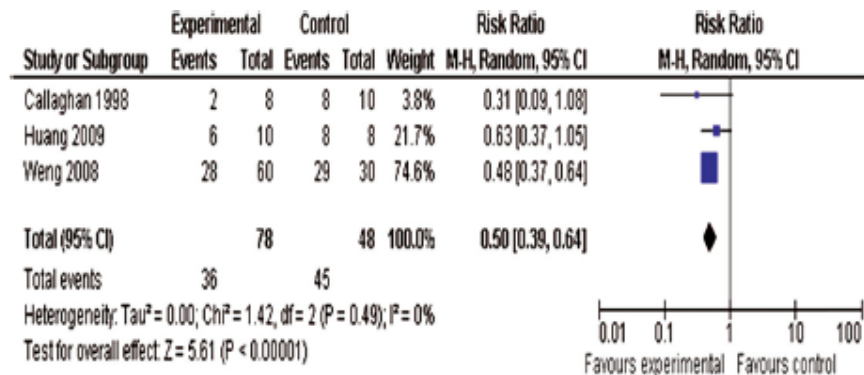
EBP Recommendations to Reduce Shear & Friction

- 🔗 Loose covers & increased immersion in the support medium increase contact area
- 🔗 Prophylactic dressings: emerging science
- 🔗 Reposition the individual to relieve or redistribute pressure using manual handling techniques and equipment that reduce shear & friction.
 - △ Mechanical lifts
 - △ Transfer sheets
 - △ 2-4 person lifts
 - △ Turn & assist features on beds
- 🔗 Do not leave moving and handling equip underneath the patient, unless it is specifically designed for this purpose

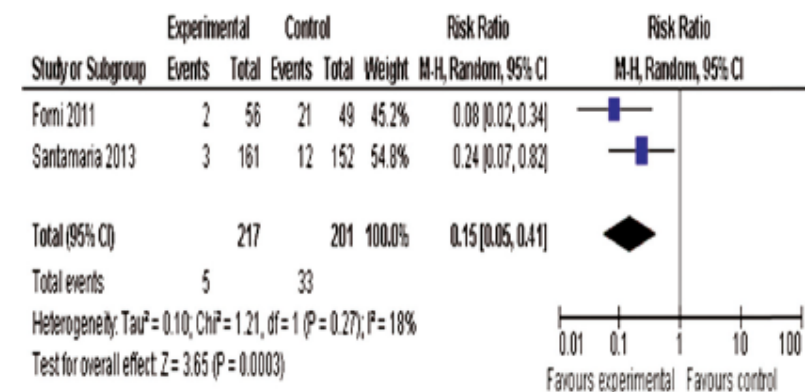


Systematic Review: Use of Prophylactic Dressing in Pressure Ulcer Prevention

- 21 studies met the criteria for review
- 2 RCTs, 9 had a comparator arm, 5 cohort studies, 1 within-subject design where prophylactic dressings were applied to one trochanter with the other trochanter dressing free



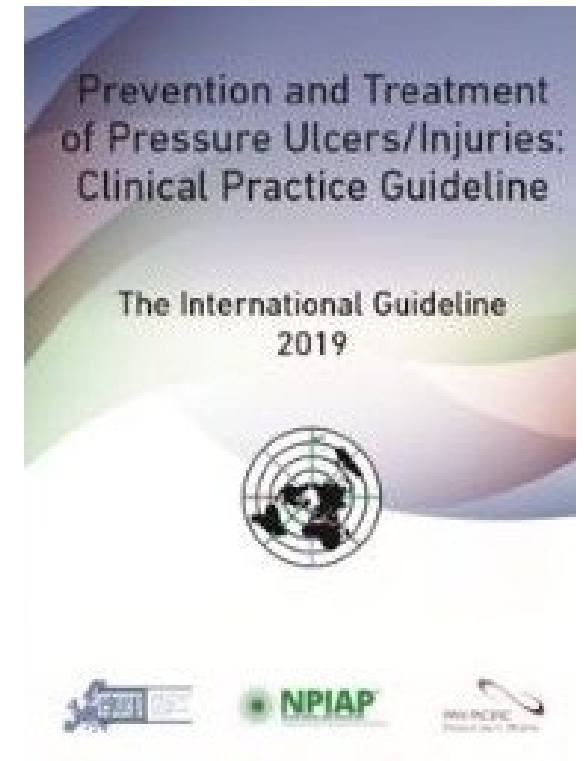
Evaluated nasal bridge device ulcer prevention



Evaluated sacral pressure ulcer prevention

EBP Recommendations to Reduce Shear & Friction

- 🔗 Loose covers & increased immersion in the support medium increase contact area
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Specialty Bed



**Disposable Glide
/Slide Sheets**



**Non-Breathable Shear
Reduction Glide Sheet
& Turning**



**Breathable Shear
Reduction Glide Sheet
& Turning**

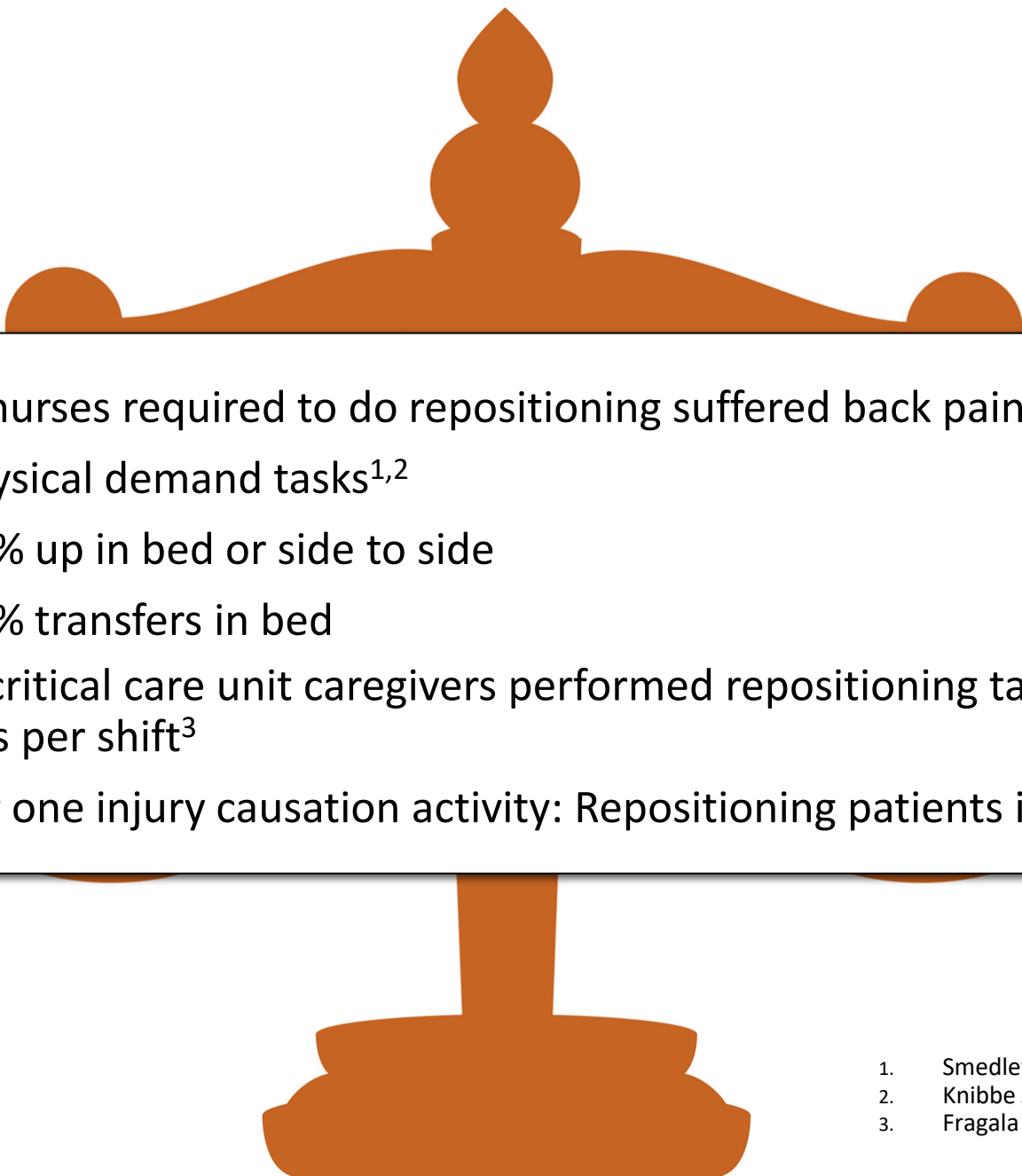

Current Practice: Turn & Reposition

Draw Sheet/Pillows/Layers of Linen




Lift Device

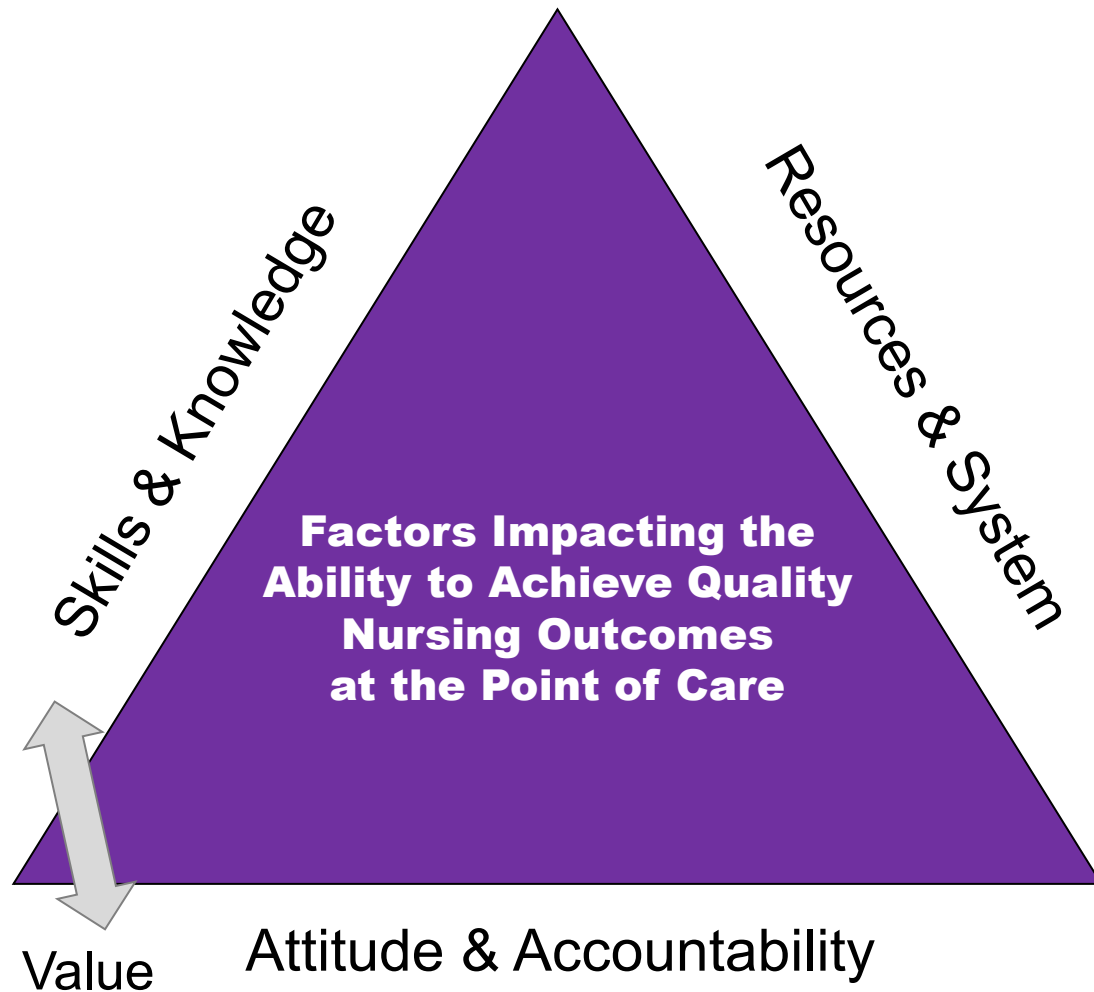


- 
- 
- 50% of nurses required to do repositioning suffered back pain¹
 - High physical demand tasks^{1,2}
 - 31.3% up in bed or side to side
 - 37.7% transfers in bed
 - 40% of critical care unit caregivers performed repositioning tasks more than six times per shift³
 - Number one injury causation activity: Repositioning patients in bed³

1. Smedley J, et al. J Occupation & Environmental Med, 1995; 51:160-163)
2. Knibbe J, et al. Ergonomics 1996; 39:186-198)
3. Fragala G. AAOHN, 2011; 59:1-6



Achieving the Use of the Evidence for Pressure Injury Reduction



Resource & System

- △ Breathable glide sheet/stays
- △ Foam wedges
- △ Microclimate control
- △ Reduce layers of linen
- △ Wick away moisture body pad
- △ Protects the caregiver

Impact of a Turn & Position Device on PI & Staff Time



🔗 Prospective, QI study (1 SICU & 1 MICU)

🔗 2 phases

- SOC: pillows, under pads, standard low air loss bed and additional staff if required
- Interventional: turn and position system, a large wicking pad (part of the product)

△ Inclusion criteria: newly admitted, non-ambulatory, required 2 or more to assist with turning/repositioning

△ Turning procedures were timed/admitting till ICU discharge

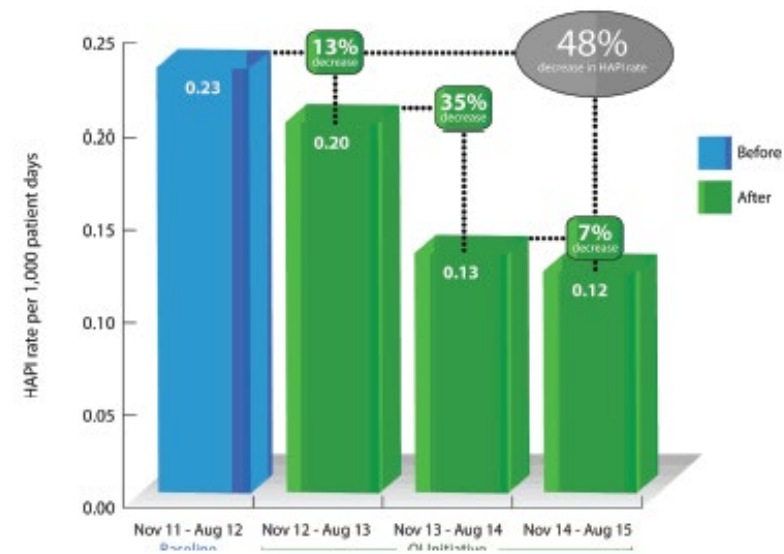
🔗 Results

- No difference in sociodemographic and clinical data between the groups
- Phase 1: 14 patients (28%) Stage II sacral PI
- Phase 2: zero sacral PI ($p < .0001$)
- Timing:
 - Phase 1: 16.34 mins (range 4-60min) SD= 10.08
 - Phase 2: 3.58 mins (range 1.12-8.48) SD = 2.31 ($p = 0.0006$)



Reducing HAPI & Patient Handling Injuries

- Compared pre-implementation turning practice: pillows/draw sheet vs turn and position system (breathable glide sheet/foam wedges/wick away pad)
- Baseline: November 2011-August 2012
- Implementation period: November 2012 to August 2015
- 3660 patients
- Compared HAPU rates, patient handling injuries, and cost



PATIENT HANDLING INJURY AND COSTS				74% reduction
	January 2012 to October 2012 (Before)	November 2012 to August 2013 (After)	November 2013 to August 2014 (After)	November 2014 to August 2015 (After)
Injuries/Cost	19/\$427,500	8/\$180,000	2/\$45,000	5*/\$112,500
Average cost calculated by estimating \$22,500 per injury. ¹⁷				
*1 PCI in critical care, 4 PCIs in medical. We were unable to determine if the patients were eligible for the repositioning system.				

Electronic Wearables

- ▶ Pragmatic Open Label RCT
- ▶ 2 ICU-large academic center
- ▶ Experimental group n=659, Control group n=653,
- ▶ Measured:
 - △ HAPI & Turning compliance
- ▶ Results:
 - △ HAPI .7% vs 2.3% ($p=0.031$)
 - △ Turn compliance 67% vs. 53% $p<0.001$
 - △ Turn magnitude & adequate depressurization time not different

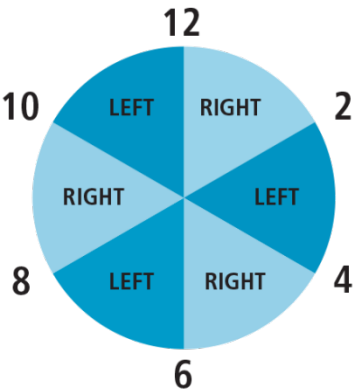


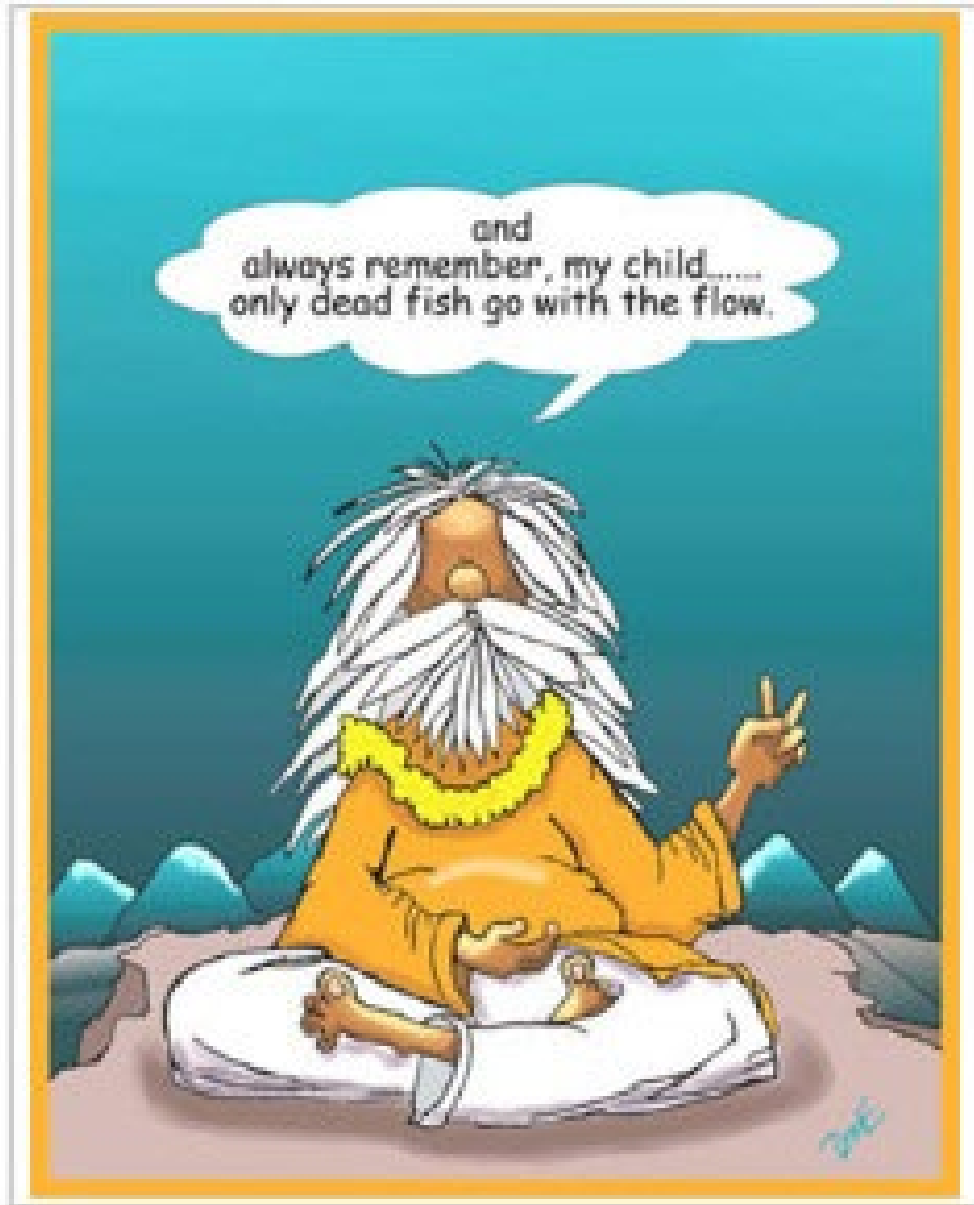
NNT=62

Turn Teams/SPH

- ▶ Evaluate the impact of a dedicated turn team to reduce HAPI's
- ▶ 507 patients, 20 bed university ICU
- ▶ 24/7 q 2hr turn performed by a team
- ▶ 278 patients before
- ▶ 229 patients after
- ▶ Results:
 - △ 42 PI vs 12 PI ($p < 0.0001$)
 - △ Braden 16.5 vs. 13.4 ($p = 0.04$)

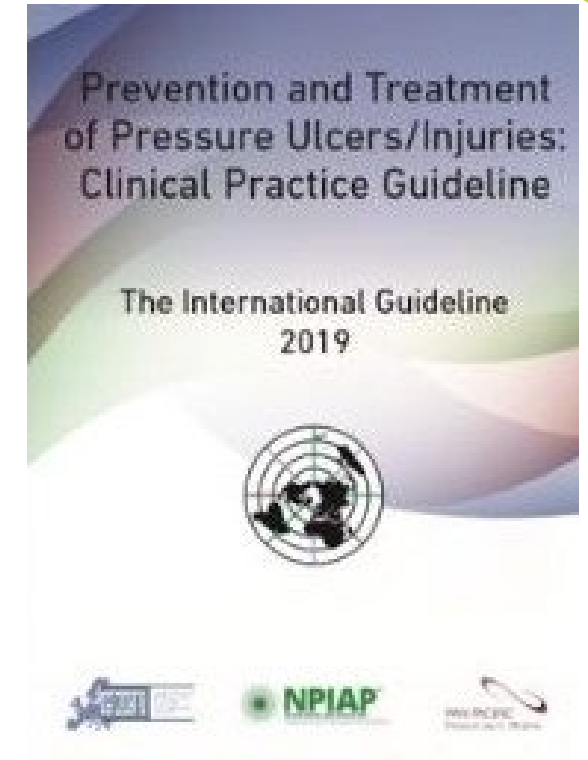
In-Bed Technology





EBP Recommendations to Achieve Offloading & Reduce Pressure

- Turn & reposition every 2 hours (avoid positioning patients on a pressure ulcer)
 - △ Use active support surfaces for patients at higher risk of development where frequent manual turning may be difficult
 - △ Microclimate management
 - △ Heel protection
 - △ Early mobility programs
 - △ Seated support surfaces for patients with limited mobility when sitting in a chair

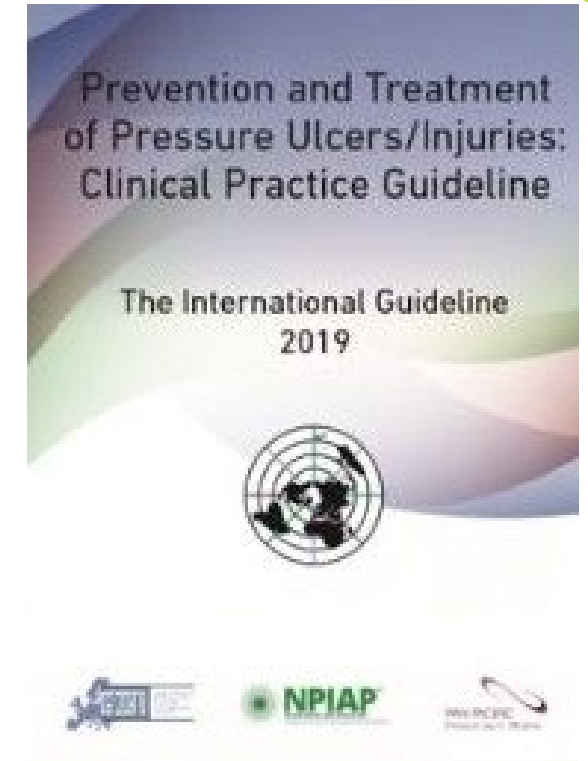


Prevention Strategies for IAD



EBP Recommendations to Reduce Injury From Incontinence & Other Forms of Moisture

- ▲ Clean the skin as soon as it becomes soiled^{2,4}
- ▲ Use an incontinence pad and/or briefs that wick away moisture^{1,2,4}
- ▲ Use a protective cream or ointment^{1,2,4}
 - △ Disposable barrier cloth recommended by IHI & IAD consensus group
- ▲ Ensure an appropriate microclimate & breathability⁴
- ▲ < 4 layers of linen³
- ▲ Barrier & wick away material under adipose and breast tissue^{2,4}
- ▲ Support or retraction of the adipose tissue (i.e. KanguruWeb)⁴
- ▲ Pouching device or a bowel management system^{2,4}



1. www.ihi.org
2. Doughty D, et al. JWOCN. 2012;39(3):303-315
3. Williamson, R, et al (2008) Linen Usage Impact on Pressure and Microclimate Management. Hill-Rom
4. European Pressure Ulcer Advisory Panel/ National Pressure Injury Advisory Panel, and Pan Pacific Pressure Injury Alliance. Prevention & treatment of pressure ulcers/injuries :Clinical Practice Guideline. Emily Haesler (Ed).EPUAP/NPIAP

Evidence-Based Components of an IAD Prevention Program



- ▲ Skin care products used for prevention or treatment of IAD should be selected based on consideration of individual ingredients in addition to consideration of broad product categories such as cleanser, moisturizer, or skin protectant. (Grade C)
 - △ A skin protectant or disposable cloth that combines a pH balanced no rinse cleanser, emollient-based moisturizer, and skin protectant is recommended for prevention of IAD in persons with urinary or fecal incontinence and for treatment of IAD, especially when the skin is denuded. (Grade B)
 - △ Commercially available skin protectants vary in their ability to protect the skin from irritants, prevent maceration, and maintain skin health. More research is needed. (Grade B)



IAD Prevention Practices: Implementation Science Approach



- Identified evidence gaps in previous study (4 hospitals-250 patients)
- Using implementation science approach to introduce evidence based IAD practices
- IAD committee: education about correct pad sizing, washable and disposable pads and plastic sheets removed from the wards. All in one barrier cloth that cleans, protects and moisturizes was introduced
- Nurses from wards ask to participate in 1 of 6 focus groups post implementation



IAD Prevention Practices: Results

Variable	Pre-Implementation N=250	Post Implementation N=259	P value
IAD	23 (9.2%)	6 (2.3%)	.015
HAPI	9 (3.6%)	2 (0.8%)	.034
Bed protection use	154 (64.7%)	6 (2.3%)	<.01
Continent patients with incontinent products	73 (29.2%)	28 (10.8%)	<.01


Nurse Focus Groups: 31 nurses, 4 themes

- Benefit to patient: improved skin condition, patient comfort
- Usability: fewer steps
- Problems encountered: not seeing barrier in place
- Related factors: confusion between IAD and pressure injury



“Even if you are on the
right track, you will get
run over if you just sit
there.”

Will Rogers



**Forbid yourself to be
deterred by poor odds just
because your mind has
calculated that the
opposition is too great. If it
were easy, everyone would
do it.**



Kathleen Vollman

ADVANCING NURSING THROUGH KNOWLEDGE & INNOVATION



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