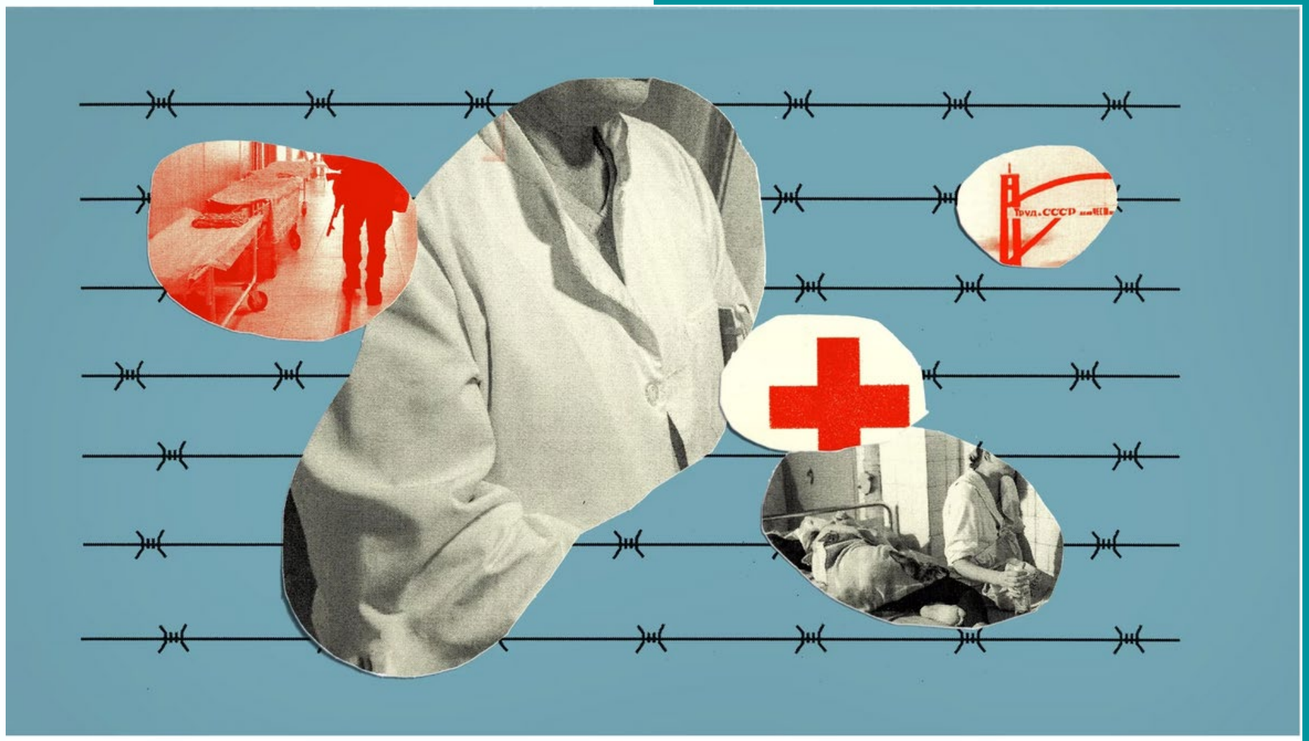
Are You Winning the War?



Getty; The Atlantic

Amy Bruggemann
MSN, APRN-BC, CWS

Director of Clinical Operations
Specialized Wound Management

Chesterfield, MO

DISCLOSURE

Speaker's Bureau: Smith and Nephew

Director of Clinical Operations: Specialized Wound Management

OBJECTIVES

01
Understand etiologies of F-686

02
Identify steps to create a comprehensive prevention plan

03
Discuss the unavoidable classification

04
Recognize how to implement risk mitigation

F686

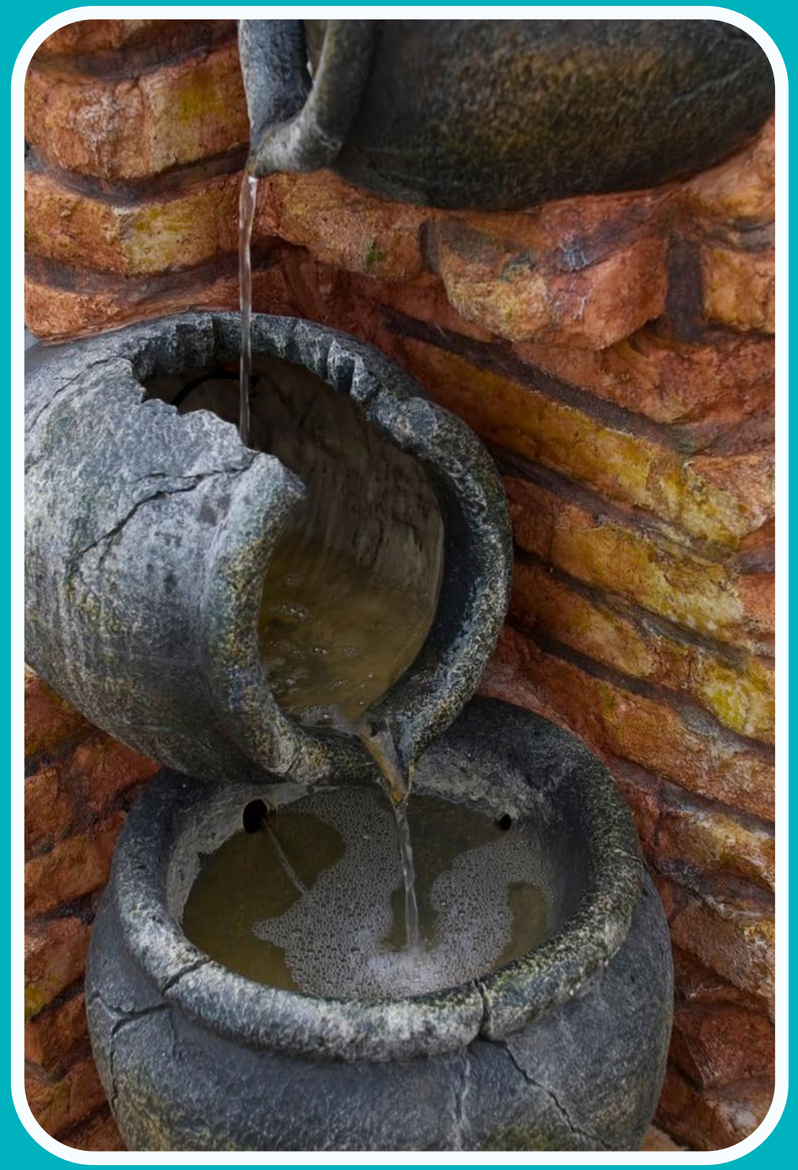
(i) A resident receives care, consistent with professional standards of practice, to prevent pressure ulcers and does not develop pressure ulcers unless the individual's clinical condition demonstrates that they were unavoidable;
(ii) A resident with pressure ulcers receives necessary treatment and services, consistent with professional standards of practice, to promote healing, prevent infection and prevent new ulcers from developing.(SOM: P. 294)

F686

(i) A resident receives care, consistent with professional standards of practice, to prevent pressure ulcers and does not develop pressure ulcers unless the individual's clinical condition demonstrates that they were unavoidable;
(ii) A resident with pressure ulcers receives necessary treatment and services, consistent with professional standards of practice, to promote healing, prevent infection and prevent new ulcers from developing.(SOM: P. 294)

F684

Quality of care is a fundamental principle that applies to all treatment and care provided to facility residents. Based on the comprehensive assessment of a resident, the facility must ensure that residents receive treatment and care in accordance with professional standards of practice, the comprehensive person-centered care plan, and the residents' choices, including but not limited to the following: cont...
(SOM p. 280)



The Trickle Down Effect

483.80

Infection Control

F880
F881
F882

483.24

Quality of Life

F675
F676
F677

483.25

Quality of Care

F684, F688,F90
F692, F697

483.60

Food Nutrition Services

F800
F811

483.21

Comp. Care Plans

F655
F656
F657
F658

483.35

Nursing Services

F725
F726
F730

483.20

Resident Assessments

F363
F637
F641

485.75 & 483.95

QAPI & Training

F865, F866, F867
F945, F946, F947

Mindset Changing

REACTIVE

Responding to a failure

PROACTIVE

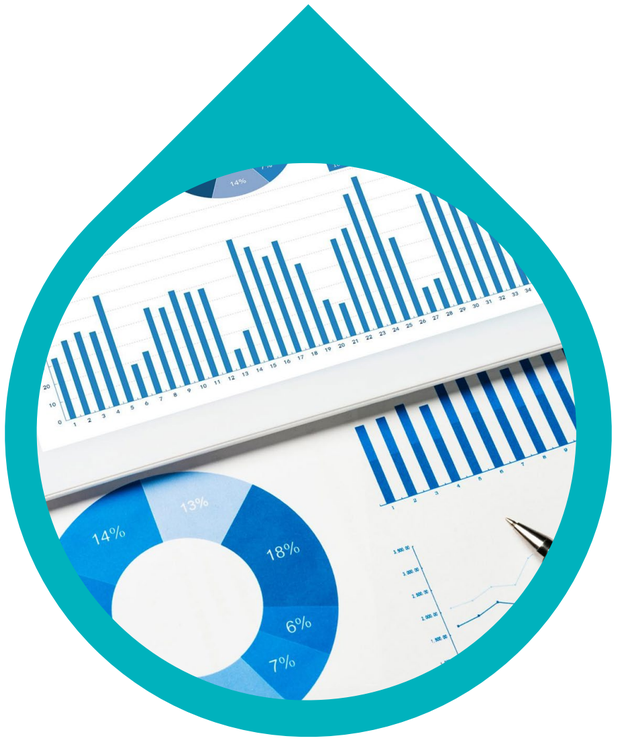
Attempting to prevent a failure

PREDICTIVE

Evaluating for a potential failure

REACTIVE

Disgruntled Patient or Family



Survey Citations

Legal Actio n

Your best

ability

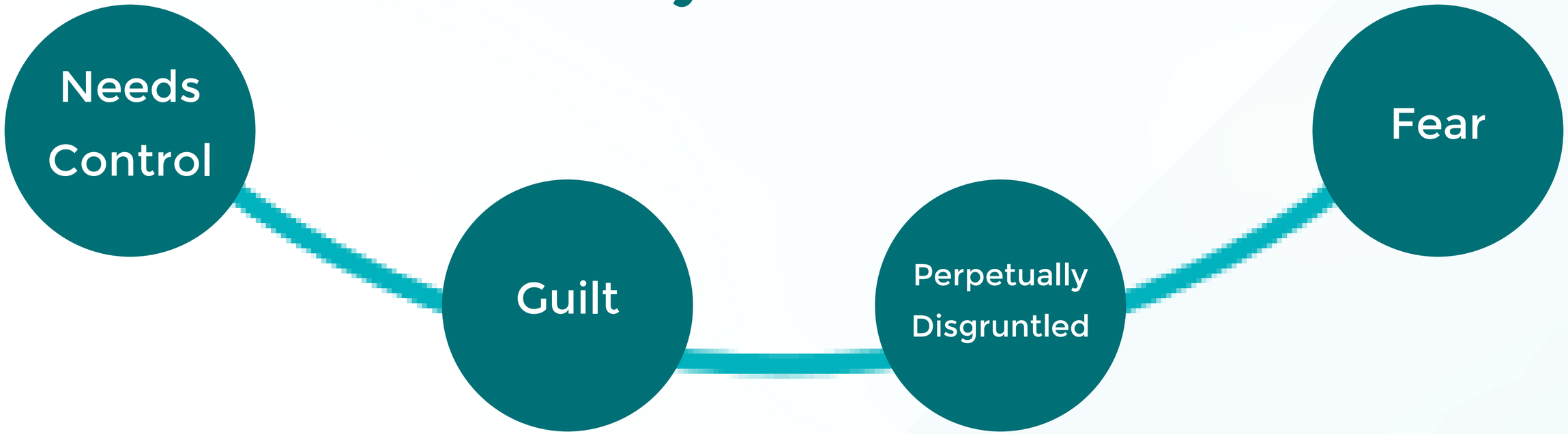
is your

availability

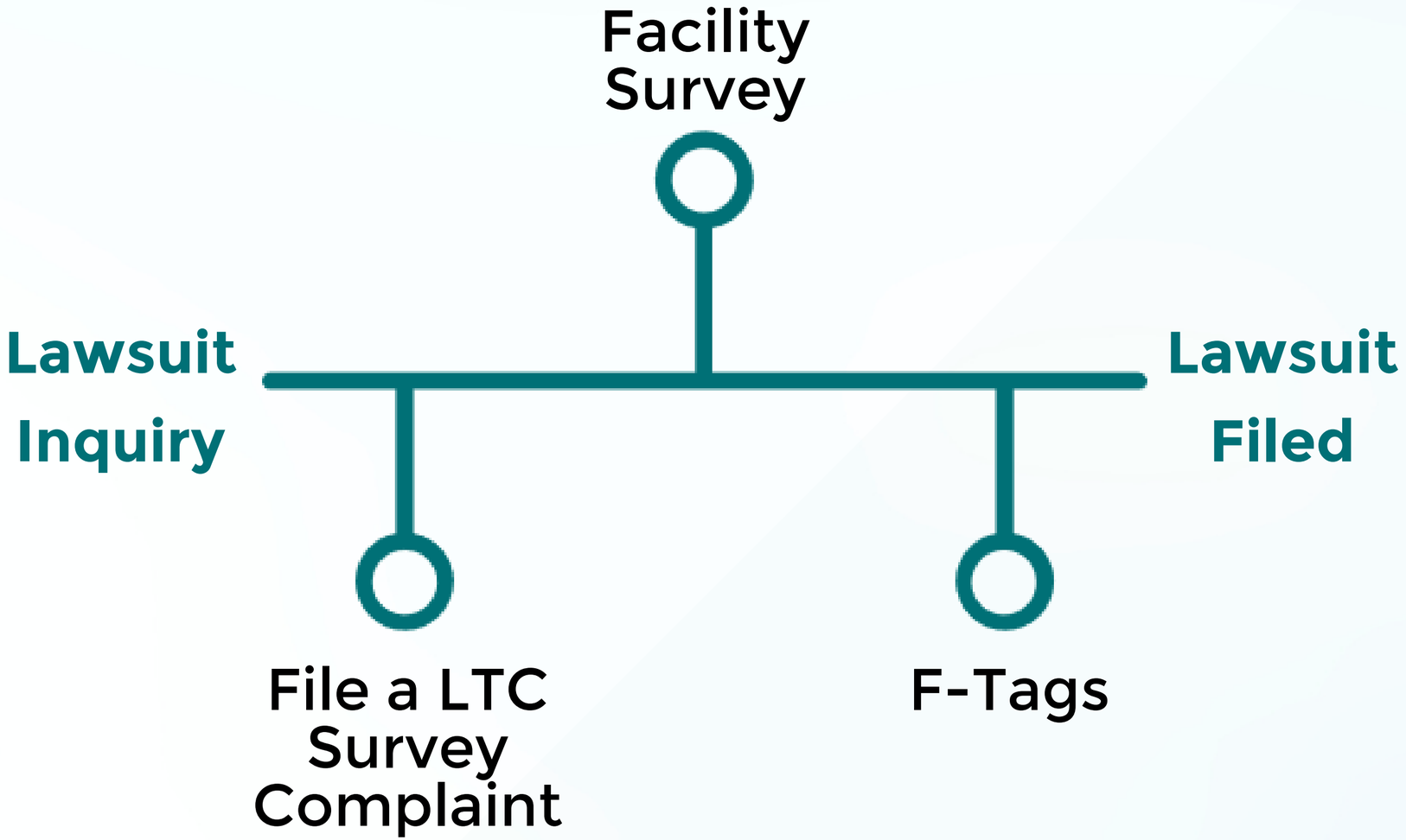
*Quote Unknown

Navigating the Caregiver Scene

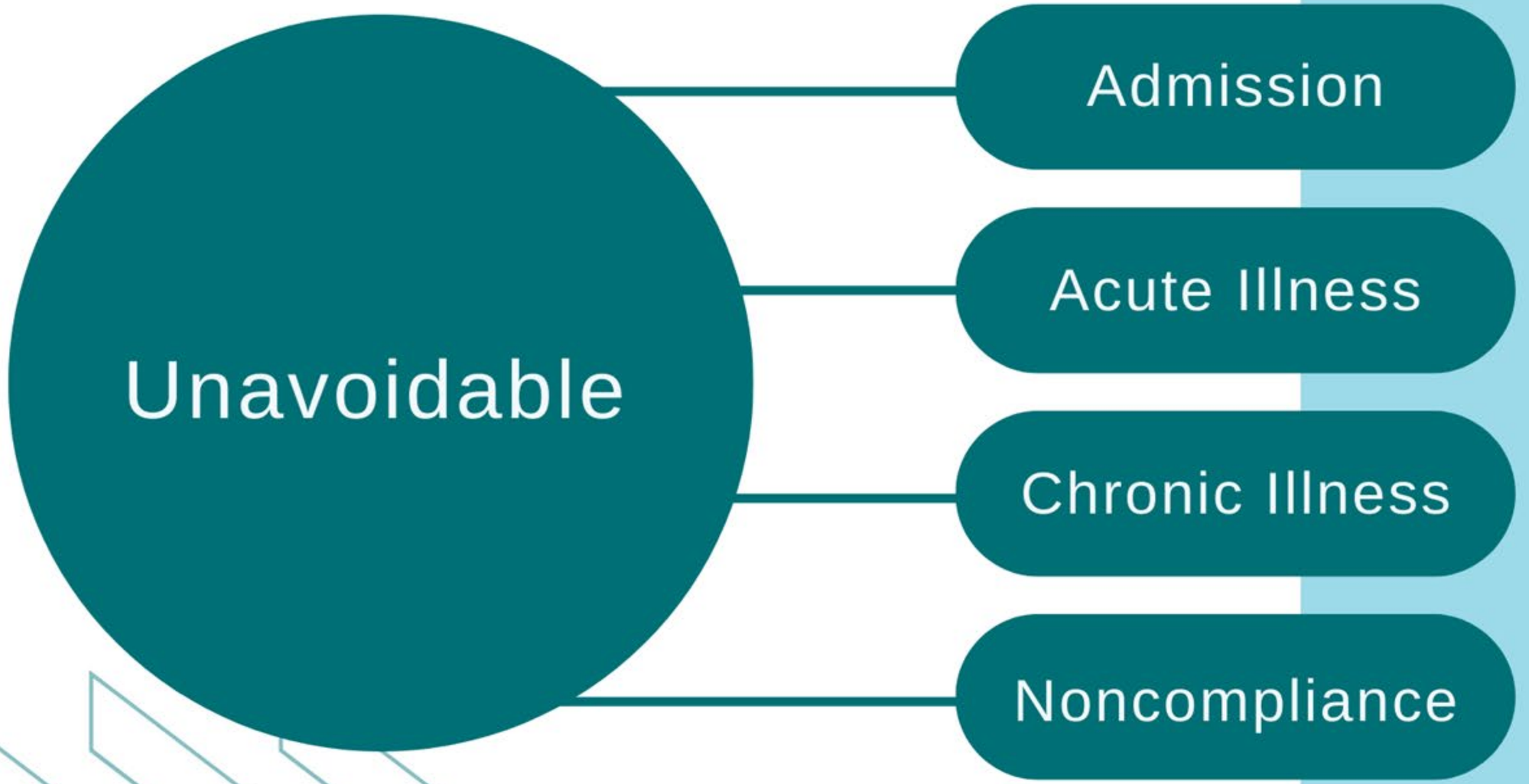
Dynamics



WORKPLACE CULTURE


Facility Survey
Lawsuit Inquiry
Lawsuit Filed
File a LTC Survey Complaint
F-Tags


PROACTIVE


Unavoidable
Admission
Acute Illness
Chronic Illness
Noncompliance

heart disease

cancer

chronic lung disease

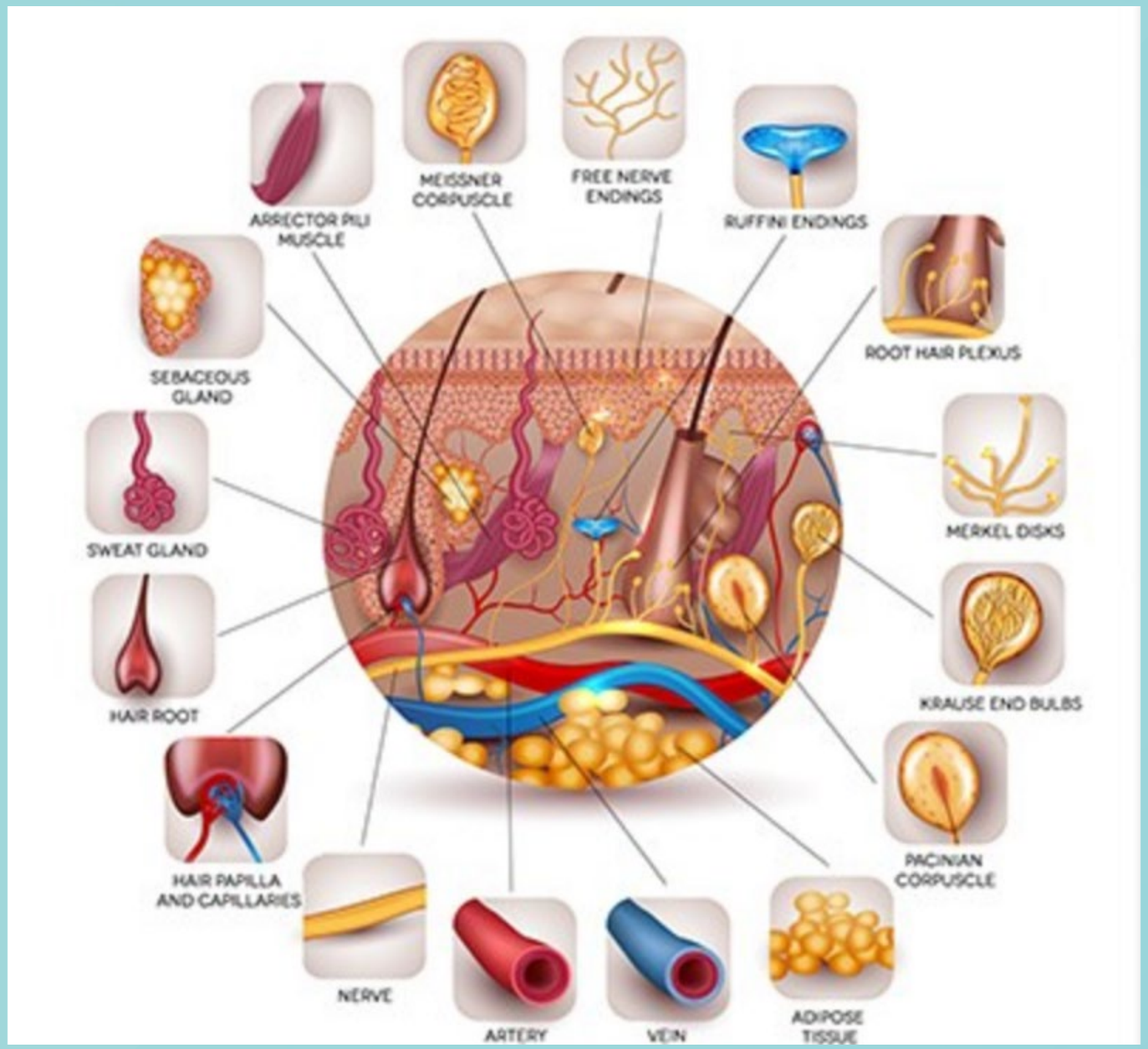
stroke

alzheimer's disease

diabetes

chronic kidney disease

The Skin
our largest organ



www.chagrinvalleysoapandsalve.com

Who?

- Patient with a wound
- Patient with a change in medical condition
- A new admission

When are PI/PUs most likely to develop?

A 1-2 weeks after admission

B 2-4 weeks after admission

C 3-6 months after admission

D >1 year after admission

B

2-4 Weeks After Admission

New Admissions

- 80% of PU/PIs develop within 2 weeks of admission
- 96% develop within 3 weeks of admission

Regulatory guidance in appendix PP shares information related to research regarding PU/PI development.

n. (Reference: Lyder CH, Ayello EA. Pressure Ulcers: A Patient Safety Issue. In: Hughes RG, editor. Patient Safety and Quality: An Evidence-Based Handbook for Nurses. Rockville (MD): Agency for Healthcare Research and Quality (US); 2008 Apr. Chapter 12. Available from: http://www.ncbi.nlm.nih.gov/books/NBK2650/) Many clinicians utilize a standardized pressure ulcer/i

Change of Condition

Physical

- Acute Illness
  - Flu, URI, Pneumonia
  - CVA, MRI, Surgery
  - Urinary Tract Infection
  - Surgical Fractions and replacements
- Exacerbation of Chronic Illness
  - CHF
  - Hyperglycemia
- Weight Loss
- Incontinence

Mental

- Cognitive Decline
  - Alzheimer's
  - Dementia
- Depression
- Psychotic behaviors
- Compliance

Why Refer?

____ Age >65yrs
____ Anemia
____ COPD
____ Diabetes
____ End Stage CHF
____ End Stage Liver Disease
____ End Stage Renal Disease
____ Episode of acute illness

____ Failure to Thrive
____ Fecal Incontinence
____ Fracture
____ Fungal Infection
____ History of P.U.
____ Immunosuppression
____ Paraplegia
____ Protein Deficiency

____ Protein-Energy Malnutrition
____ PVD
____ Quadriplegia
____ Sepsis
____ Stage 5 Chronic Kidney Diseas
____ Terminal Cancer
____ Urinary Incontinence
____ Urinary Tract Infection

____ Tobacco use
____ Steroid Therapy
____ Renal Dialysis
____ Albumin level <3.4 or Pre-albumin <17
____ < Total Protein Level
____ Previous UTI
____ Exacerbation of Chronic Illness
____ Medical Device:
____ Antibiotic Therapy (Long-term, Recent or Ongoing) w/concurrent skin breakdown of the trunk
____ Weight Loss (>5% in 1 month, 7.5% in 3 months, or 10% in 6 months)
____ Physical deconditioning and immobility
____ Unavoidable exposure to excessive moisture, shearing +/or friction
____ Patient Preferences to spending long periods of time up in chair

____ Elevated HOB
____ Chemo or Radiation
____ Edema
____ Hemoglobin <12
____ HgbA1C >8.0

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____ Hemoglobin <12
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- **This population is at high risk for complications**
- **>50% reduction in size within the first 4 weeks studies show a patient is more likely to be completely healed in 12 weeks**

COST

483.80 — Infection Control

F880
F881
F882

483.24 — Quality of Life

F675
F676
F677

483.25 — Quality of Care

F684
F688
F690
F692
F697

483.60 — Food and Nutrition Services

F800
F811

483.21 — Comp. Care Plans

F655
F656
F657
F658

483.35 — Nursing Services

F725
F726
F730

483.20 — Resident Assessments

F363
F637
F641

485.75 & 483.95 — QAPI & Training

F865, F866, F867
F945, F946, F947

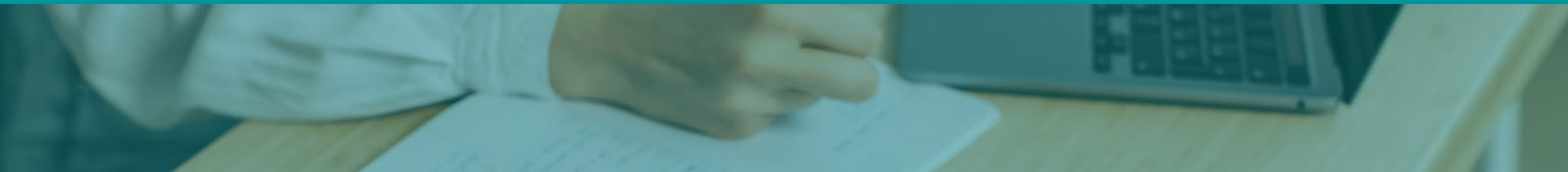
2 TYPES OF COST

Upfront Cost:

- Off-loading Devices
- Positioning Devices
- Testing
- Treatments
  - Use your resources
- Nursing Time

Hidden Cost:

- Emotional Cost
- Survey Fines
- Admission Holds
- Litigation



The Cost of Staff.....to YOU

CRUCIAL TO HAVE LEADERSHIP SUPPORT

Skin and Wound Care Liasion

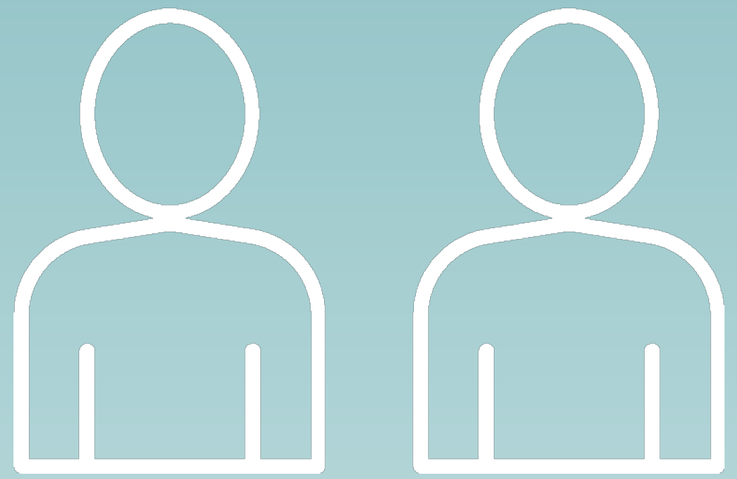
Short Staffed

Pull from this position

Perpetuating bad habits

Weekends & Holidays

COMMUNICATE



Advocating For Success

- **Administrative Leadership**
- Community Skin and Wound Care Liaison
- Provider
- Nurses
- CNA's
- Therapy
- Dietary
- Social Service
- Primary Care

Proactive Summary

Change The Approach

Consider the cause and effect

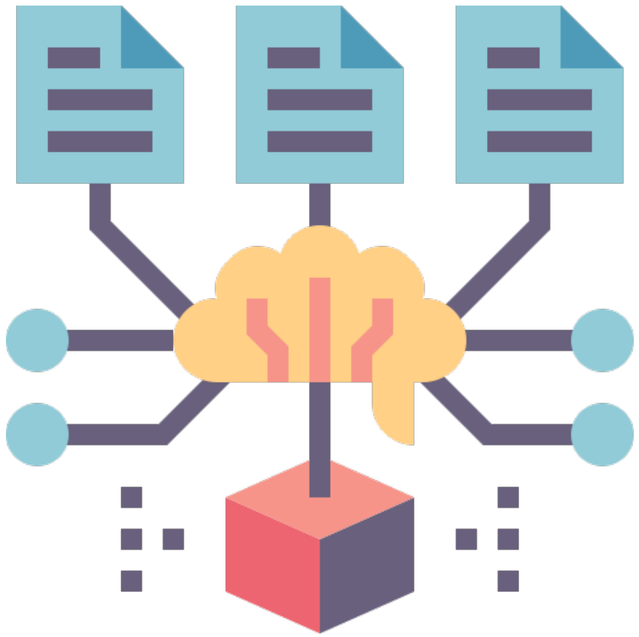
- New to the facility
- Change in Condition
- Existing Wound

Utilize The Team


FUTURE THE
PREDICTION
FUTURE THE

Prediction

- **Meetings and Reports**
- **QAPI**
- **Care Plan Meetings**
- **Tools of Risk**
- **Case Examples**



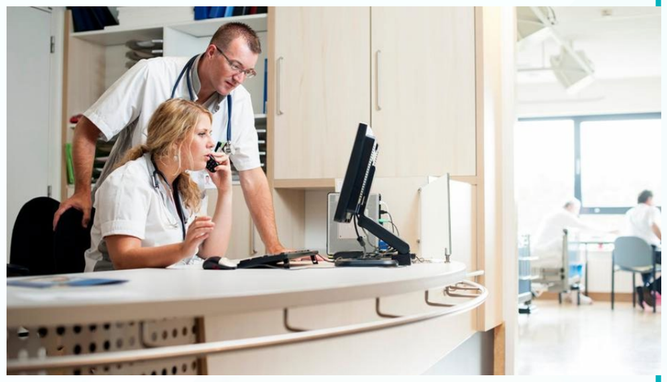
Meetings and Reports.....

Declining Ulcer / Wound

- Provider
- Patient/POA
- Rate of Decline

Long-term Player

- Age of Ulcer/Wound
- Concomitant Comorbidities



Resident in the news

- Weight Loss
- Medical Illness
- Behaviors
- Falls

QAPI

SYSTEMIC

ISOLATED

Trends

Type

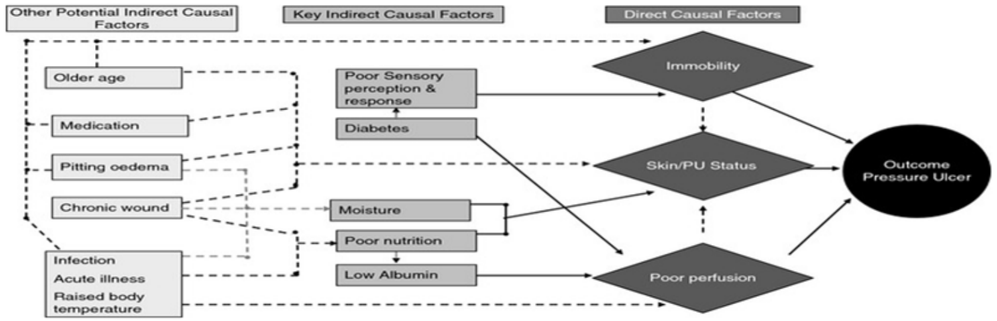
Unit

Locations

PIP

Care Plan Meetings

Causal Risk for Pressure Ulcers/Injuries



https://www.researchgate.net/profile/Andrea_Nelson2/publication/261253980/figure/fig1/AS:272539792441378@1441989958566/Theoretical-schema-of-proposed-causal-pathway-for-pressure-ulcer-development-The-solid.png

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Interventions: _____

nterventions

BRADEN SCALE FOR PREDICTING PRESSURE SORE RISK

Patient's Name _____ Evaluator's Name_____ Date of Assessment

SENSORY PERCEPTION ability to respond meaningfully to pressure-related discomfort	**1. Completely Limited** Unresponsive (does not moan, flinch, or grasp) to painful stimuli, due to diminished level of con-sciousness or sedation. OR limited ability to feel pain over most of body	**2. Very Limited** Responds only to painful stimuli. Cannot communicate discomfort except by moaning or restlessness OR has a sensory impairment which limits the ability to feel pain or discomfort over ½ of body.	**3. Slightly Limited** Responds to verbal commands, but cannot always communicate discomfort or the need to be turned. OR has some sensory impairment which limits ability to feel pain or discomfort in 1 or 2 extremities.	**4. No Impairment** Responds to verbal commands. Has no sensory deficit which would limit ability to feel or voice pain or discomfort..				
MOISTURE degree to which skin is exposed to moisture	**1. Constantly Moist** Skin is kept moist almost constantly by perspiration, urine, etc. Dampness is detected every time patient is moved or turned.	**2. Very Moist** Skin is often, but not always moist. Linen must be changed at least once a shift.	**3. Occasionally Moist:** Skin is occasionally moist, requiring an extra linen change approximately once a day.	**4. Rarely Moist** Skin is usually dry, linen only requires changing at routine intervals.				
ACTIVITY degree of physical activity	**1. Bedfast** Confined to bed.	**2. Chairfast** Ability to walk severely limited or non-existent. Cannot bear own weight and/or must be assisted into chair or wheelchair.	**3. Walks Occasionally** Walks occasionally during day, but for very short distances, with or without assistance. Spends majority of each shift in bed or chair	**4. Walks Frequently** Walks outside room at least twice a day and inside room at least once every two hours during waking hours				
MOBILITY ability to change and control body position	**1. Completely Immobile** Does not make even slight changes in body or extremity position without assistance	**2. Very Limited** Makes occasional slight changes in body or extremity position but unable to make frequent or significant changes independently.	**3. Slightly Limited** Makes frequent though slight changes in body or extremity position independently.	**4. No Limitation** Makes major and frequent changes in position without assistance.				
NUTRITION usual food intake pattern	**1. Very Poor** Never eats a complete meal. Rarely eats more than ⅓ of any food offered. Eats 2 servings or less of protein (meat or dairy products) per day. Takes fluids poorly. Does not take a liquid dietary supplement OR is NPO and/or maintained on clear liquids or IV's for more than 5 days.	**2. Probably Inadequate** Rarely eats a complete meal and generally eats only about ½ of any food offered. Protein intake includes only 3 servings of meat or dairy products per day. Occasionally will take a dietary supplement. OR receives less than optimum amount of liquid diet or tube feeding	**3. Adequate** Eats over half of most meals. Eats a total of 4 servings of protein (meat, dairy products per day. Occasionally will refuse a meal, but will usually take a supplement when offered OR is on a tube feeding or TPN regimen which probably meets most of nutritional needs	**4. Excellent** Eats most of every meal. Never refuses a meal. Usually eats a total of 4 or more servings of meat and dairy products. Occasionally eats between meals. Does not require supplementation.				
FRICTION & SHEAR	**1. Problem** Requires moderate to maximum assistance in moving. Complete lifting without sliding against sheets is impossible. Frequently slides down in bed or chair, requiring frequent repositioning with maximum assistance. Spasticity, contractures or agitation leads to almost constant friction	**2. Potential Problem** Moves feebly or requires minimum assistance. During a move skin probably slides to some extent against sheets, chair, restraints or other devices. Maintains relatively good position in chair or bed most of the time but occasionally slides down.	**3. No Apparent Problem** Moves in bed and in chair independently and has sufficient muscle strength to lift up completely during move. Maintains good position in bed or chair.					
				Total Score				

Braden Scale Interventions Guide - Adult

For those clients at risk; based on the overall Braden Scale risk assessment score & those Braden subscales which score 3 or less, use the interventions below to develop an individualized client care plan.

Braden Risk Categories

At Risk
Score 15 - 18

Moderate Risk
Score 13 - 14

High Risk
Score 10 - 12

Very High Risk
Score 9 or less

Standard Pressure Injury Prevention Interventions for Clients in all Risk Categories:

1. Address client concerns regarding risk of a pressure injury.
2. Determine and document risk factors associated with clinical conditions.
3. Repeat Braden Risk Assessment.
4. Repeat the Head-to-Toe skin assessment.
5. Manage and provide pain relief.
6. Provide skin care
7. Prevent/manage moisture associated skin damage e.g., toileting routine to manage urine/feces Avoid continence briefs/pads.
8. Promote activity/mobility.
9. Support nutritional therapy e g encourage calorie and fluid intake as per client condition.
10. Reduce/eliminate shear & friction e.g. keep head of bed (HOB) less than 30° unless for meal time or as per client condition.
11. Alleviate pressure e.g. protect heels and elbows elevate heels off the bed
12. Promote pressure redistribution through positioning/repositioning e.g., turn/reposition as per clients individualized care plan. (e.g. q2h; q3h; q4h), and include small shifts of position.

For clients with subscales scores of 2 or less, make referral(s) to appropriate HCPs & consider additional interventions.

Nutrition Subscale 2 or Less

- Encourage diet & fluid intake as per client condition/restrictions.
- If NPO, ensure adequate parenteral hydration /nutrition.
- Record/monitor intake/output.
- Record/monitor weight.
- Ensure good oral health at least twice daily.
- Ensure that dentures are in place and well-fitting.
- Ensure that client is able to swallow safely.
- Consult Dietitian.

Moisture Subscale 2 or Less

- Cleanse with a pH-balanced, non-sensitizing, fragrance-free no-rinse skin cleanser.
- Moisturize non-sensitizing fragrance-free lotion/cream as needed.
- Avoid hot water or scrubbing of skin; gently pat skin dry.
- Cleanse skin folds & perineal area after incontinent episode with no-rinse cleaner.
- Apply skin protectant barrier to protect skin from urine/ feces/perspiration.
- Avoid powder/talc.
- Consider a low-air-loss therapeutic surface or 'micro-climate manager'.
- Consult OT/PT.
- Consult Wound Clinician.

Friction/Shear Subscale 2 or Less

- When sitting, ensure feet are on floor, or supported so hips are at a 90° angle.
- Use chair / wheelchair tilt features.
- Keep HOB ≤ 30° (unless contraindicated). Elevate ≥ 30° for meals (short periods only).
- When moving client up in bed, ensure bed is flat; that hips are 10 cms above where the bedframe flexes; then raise knee gatch 10 to 20° before HOB is raised.
- Consider Trunk Release Method (TRM) to ensure proper positioning in bed (Sitting Up In Bed video).
- Consult OT/PT.

Activity/Mobility Subscale 2 or Less & Sensory Perception Subscale 2 or Less

- Follow Friction/Shear Subscale interventions.
- Use appropriate pressure redistribution surfaces (e.g., wheelchair cushion, bed mattress)
- Avoid multiple layers of bedding, padding. Keep bed linens smooth.
- Elevate heels using therapeutic devices or pillows. Do not use intravenous bags, towels or pads. Protect elbows.
- Lift, do not drag client when repositioning in bed. Use client handling equipment e.g. ceiling lift as needed.
- Use a transfer device; sliding board, lift/transfer sheet for bed-chair transfers or bed-stretcher transfers.
- Use gel pad on commode chair and bath bench.
- Do not use donut-ring type devices or sheepskin to redistribute pressure.
- Use a prophylactic silicone foam dressing on sacral/ coccyx area. Consult Wound Clinician for use on heels.
- Assess skin/ mucosal membranes under/around medical devices 2x per shift. Reposition device if possible.
- Consult OT/PT.
- Consult Wound Clinician.

July 2017

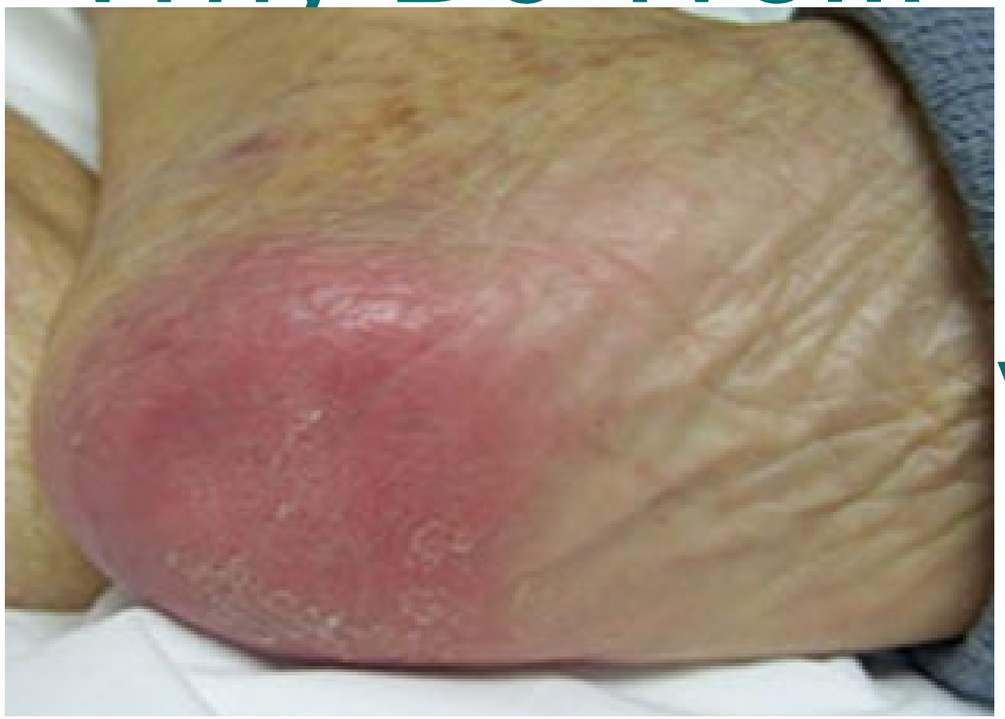
https://www.clwk.ca/get-resource/braden-scale-interventions-for-adults-guide/

01

Case Examples:

- Gangrene and Amputation
- "Unavoidable" Abscess
- Non-healing Surgical Wound
- Septic Sacral Ulcer
- Non-Compliant Resident
- The Minimalist

Why Do We...



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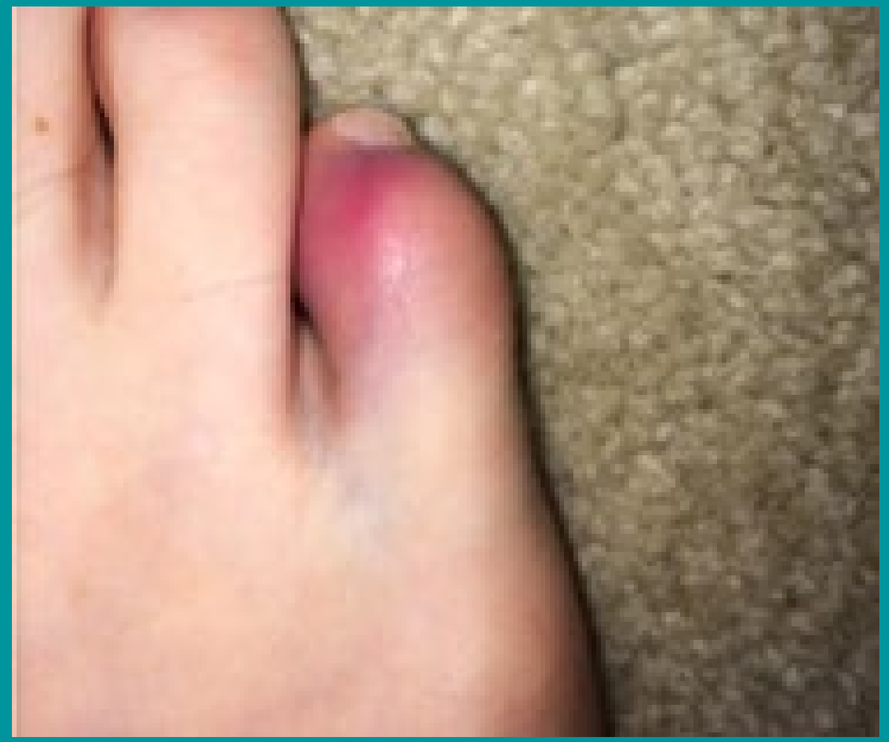
Watch & Wait

VS



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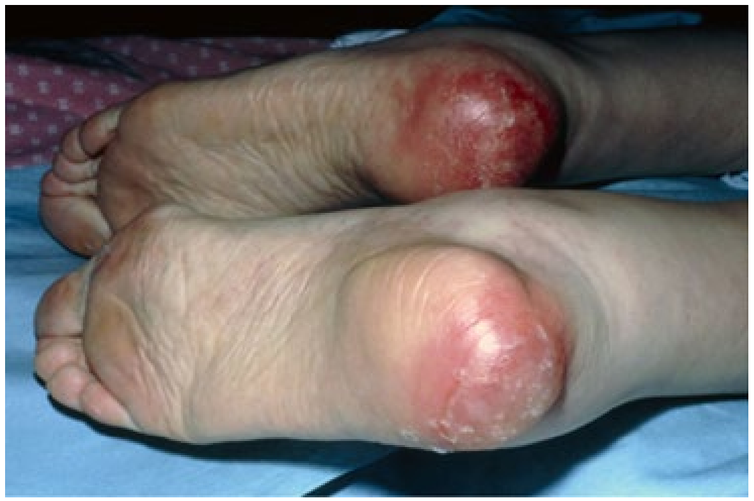
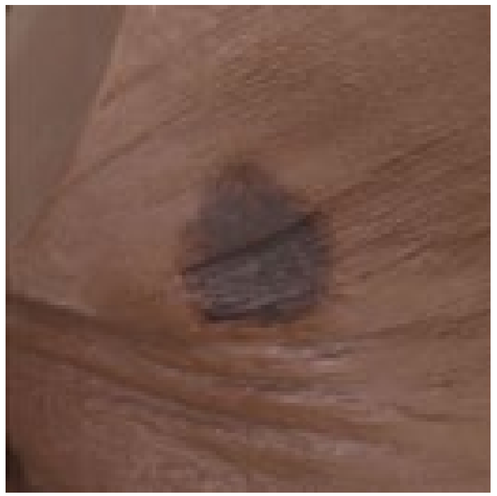
Refer

CASE STUDY #1

Do you ever admit a patient like this?





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CASE STUDY #1

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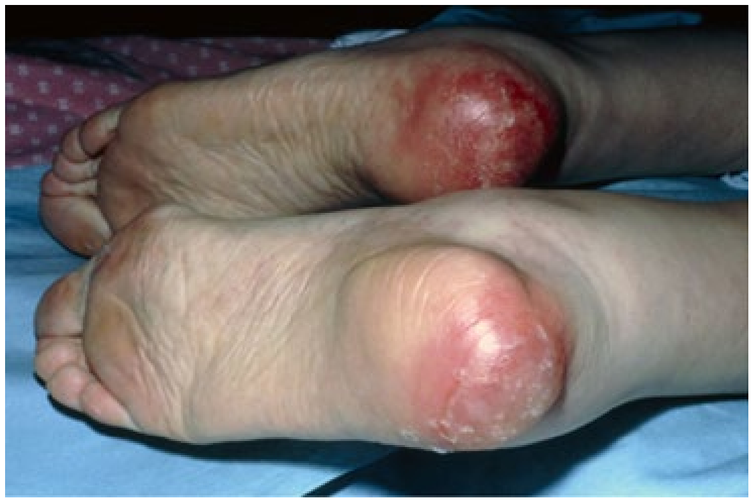
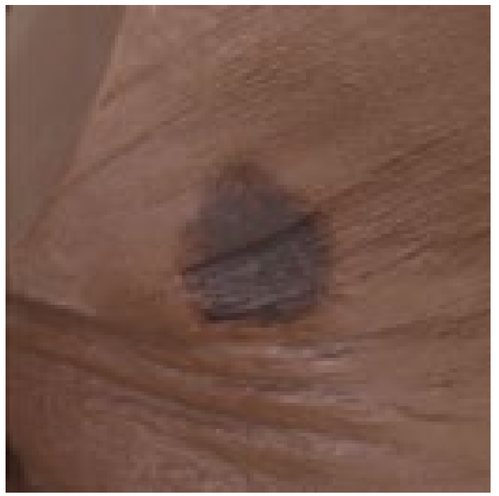
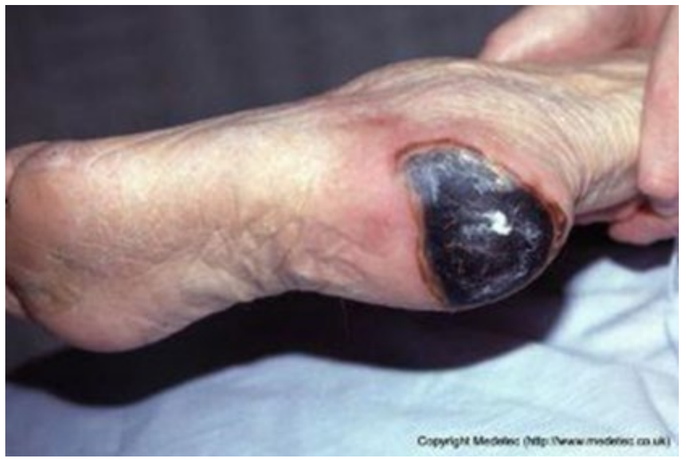


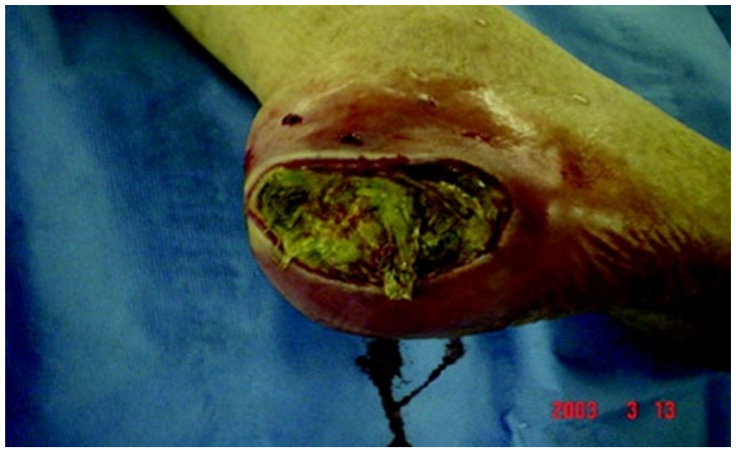


https://owqo93fpiuc4633lp1zthz57-wpengine.netdna-ssl.com/wpcontent/uploads/sites/11/2018/12/bedsoreheels_145702.jpg

And their wound becomes this?

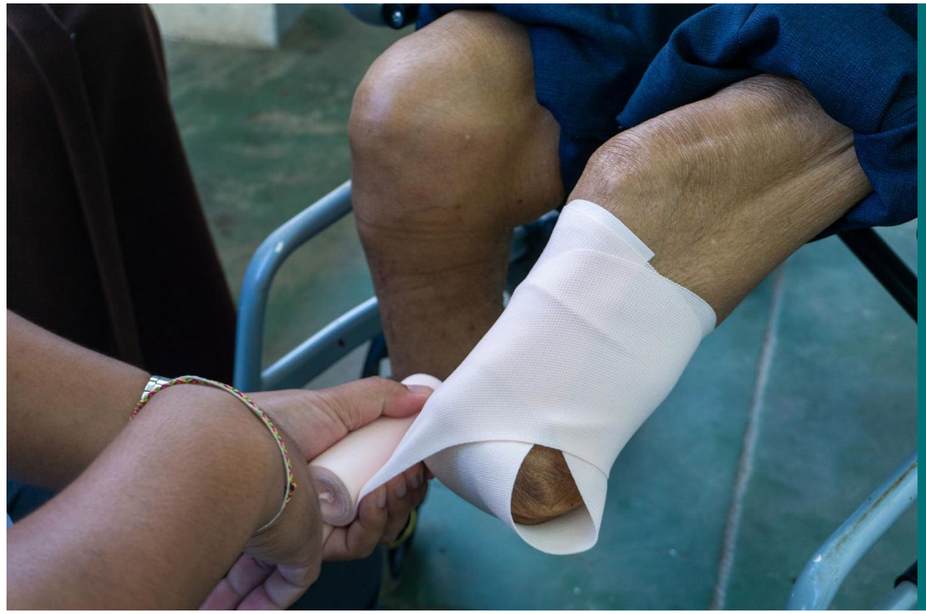


https://www.woundsource.com/sites/default/files/styles/large/public/blogs/black_necrotic_pressure_area_on_heel.jpg?itok=8yPbbTrZ



https://www.podiatrytoday.com/sites/default/files/photos/pt0305ce3.jpg

CASE STUDY #1

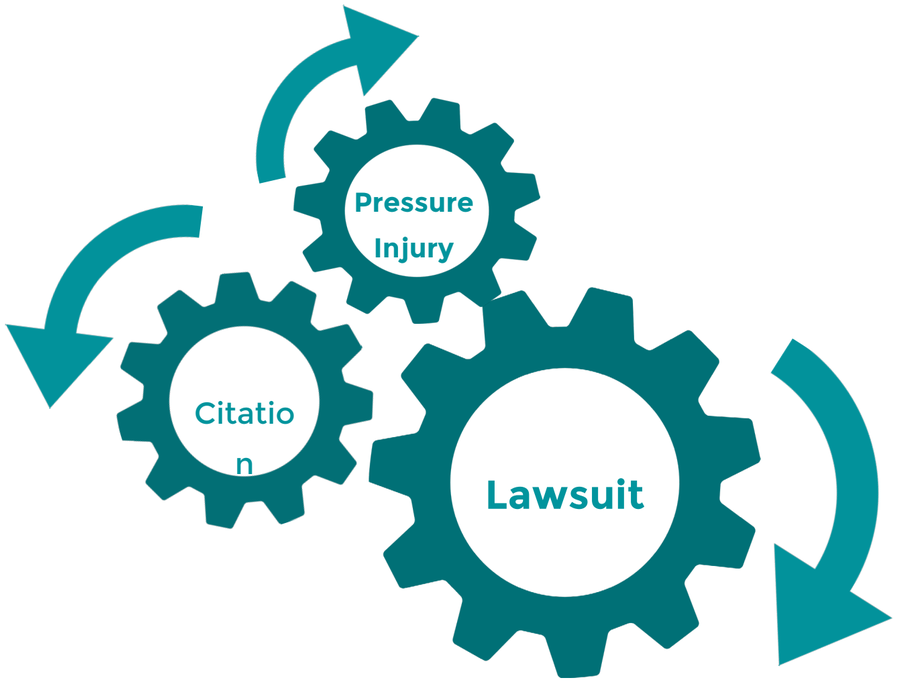


All the sudden you may have this

Could the facility have prevented the amputation?

CASE STUDY #1

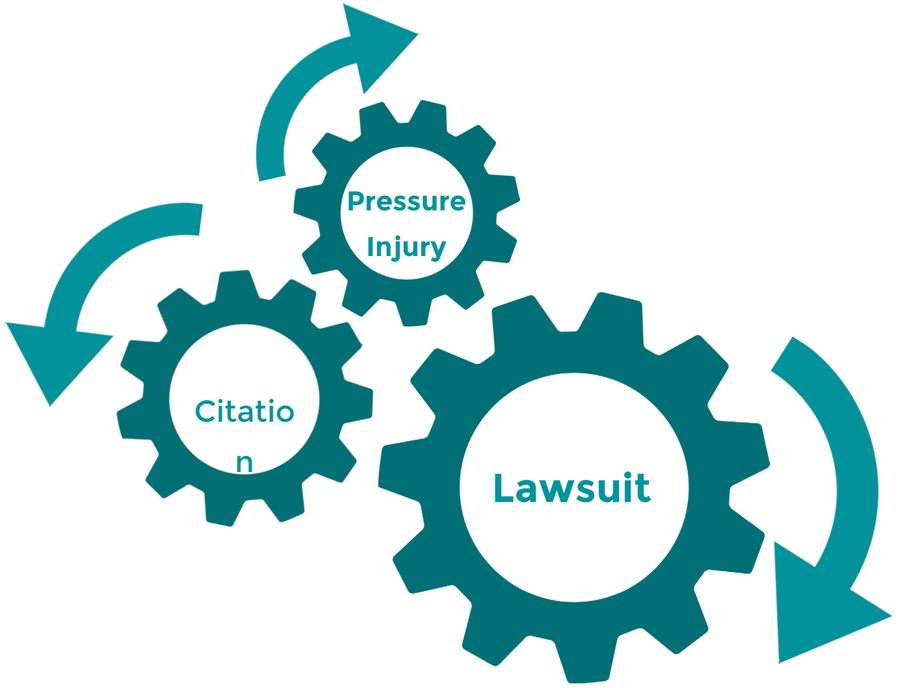
Could the facility have prevented the amputation?



CASE STUDY #1

Could the facility have prevented the amputation?

No, but they could have prevented the lawsuit.



CASE STUDY #1

Could the facility have prevented the amputation?

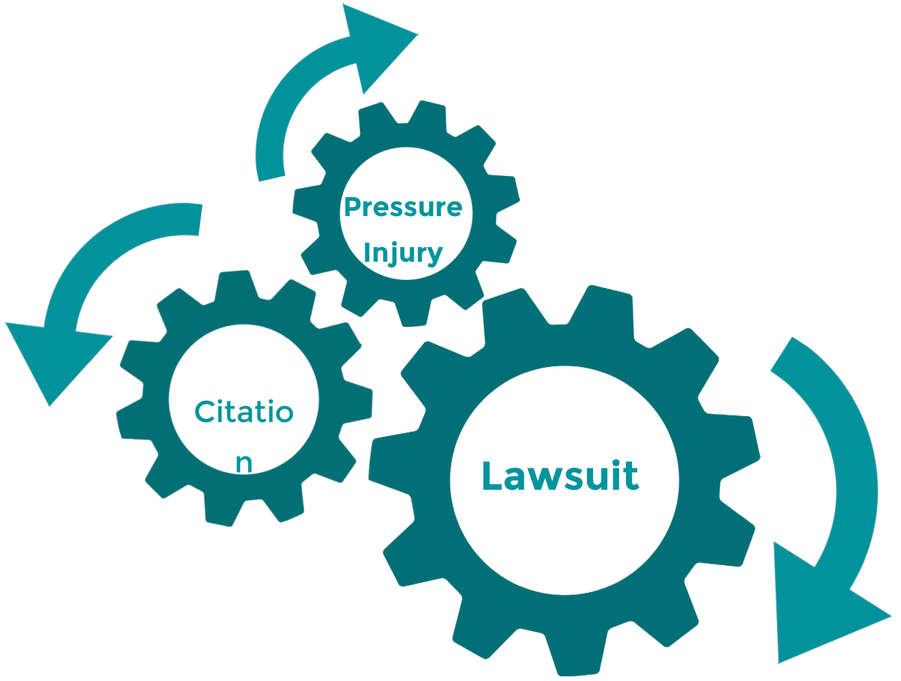
No, but they could have prevented a lawsuit.

1) ACCURATE INITIAL ASSESSMENT & REFERRAL

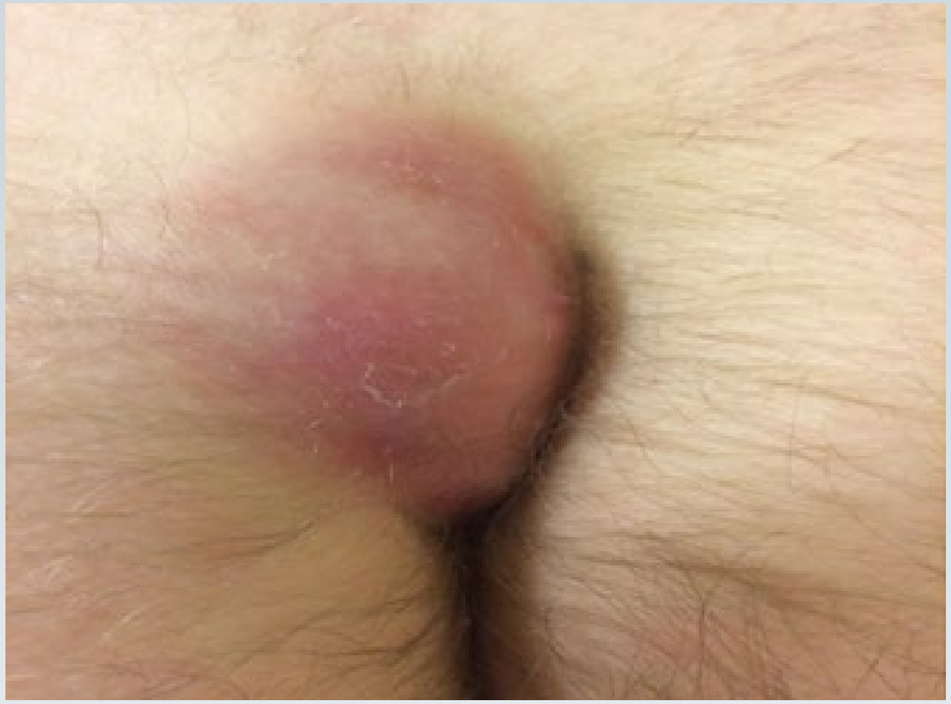
2) PATIENT & FAMILY INVOLVEMENT

3) EARLY DISCUSSION OF OPTIONS

4) EDUCATED OUTCOME EXPECTATIONS



CASE STUDY #2



https://upload.wikimedia.org/wikipedia

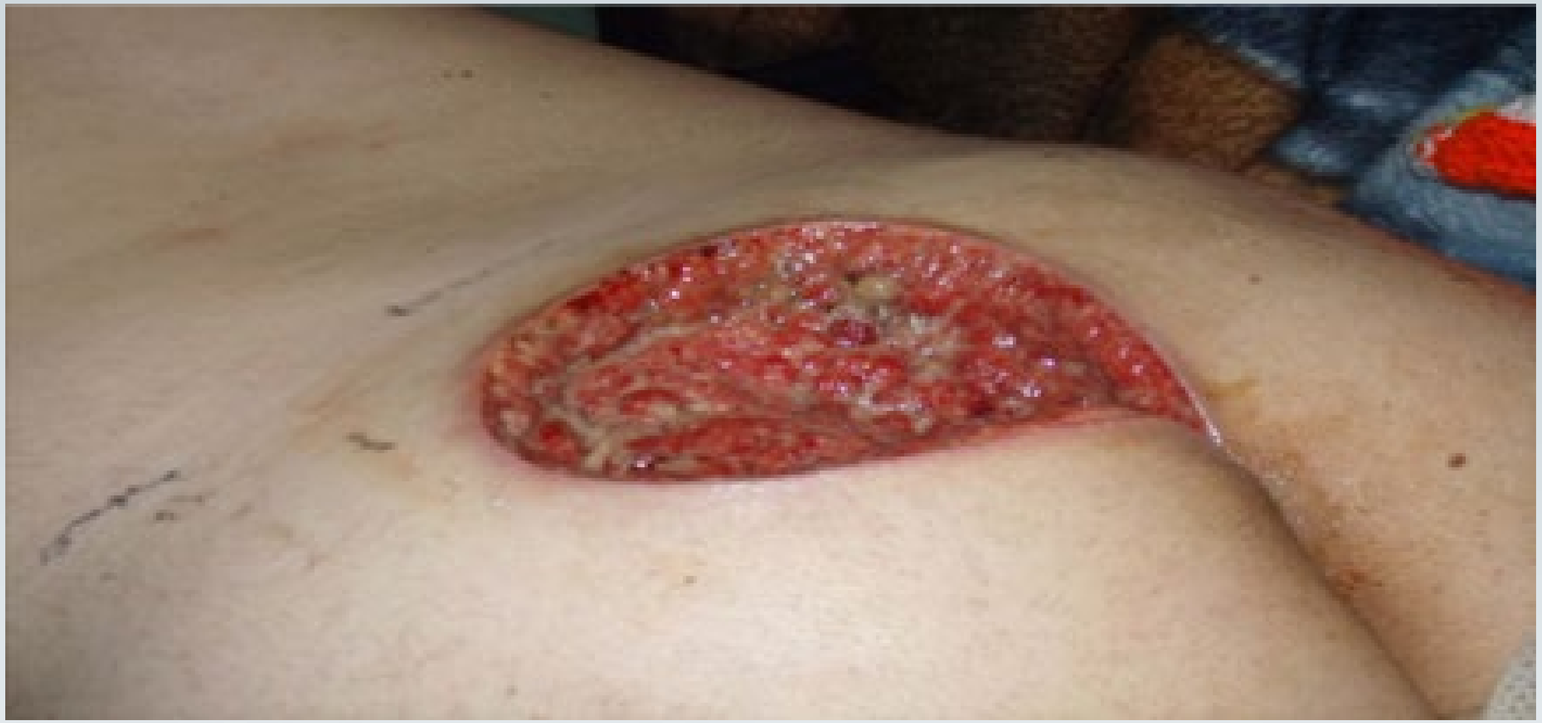
PATIENT HAS BEEN IN-HOUSE

DEVELOPS AN AREA TO THE BUTTOCK

AREA IS RED & SWOLLEN

OPENS RAPIDLY & DETERIORATES TO THE BONE

CASE STUDY #2



http://i.imgur.com/DU0da.jpg

Patient Returns:

Dx

Stage 4 Acquired Pressure Ulcer

CASE STUDY #2

AREA IS NOT PRESSURE AT ALL
BUT DUE TO AN INFECTIOUS PROCESS

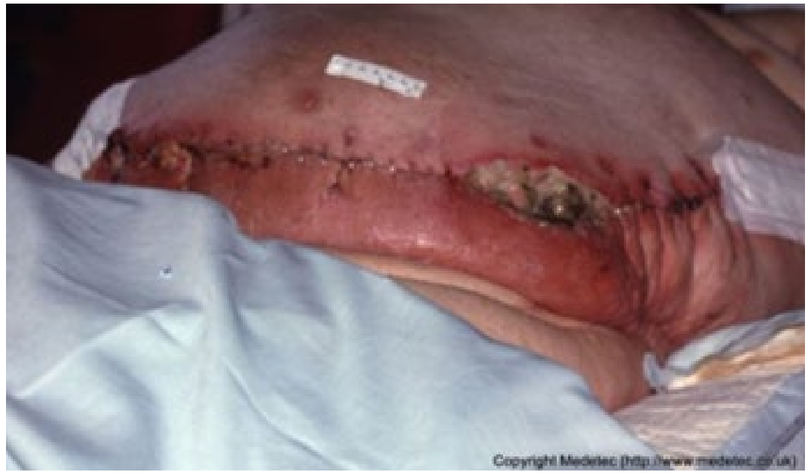
THE PROBLEM:

ONCE THE INFECTION IS RESOLVED
AREA APPEARS AS A STAGE 4 PRESSURE INJURY

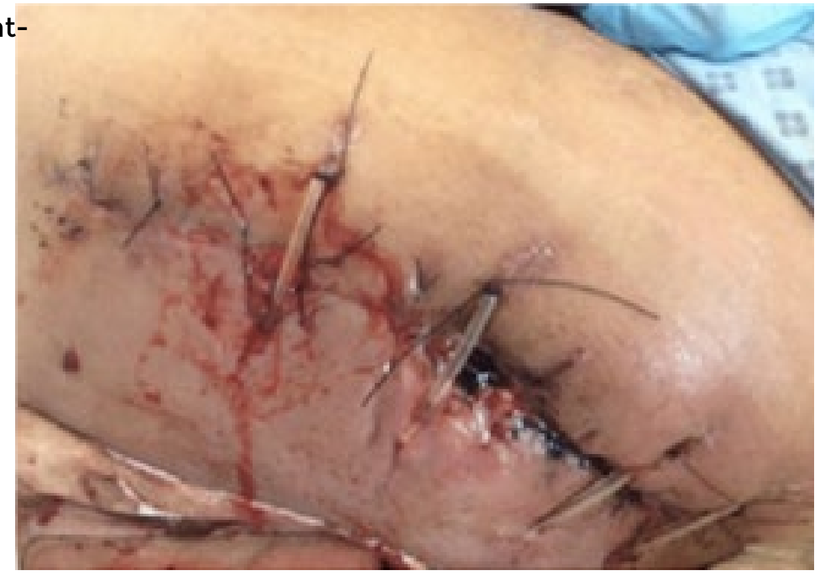
THE INITIAL ASSESSMENT AND DOCUMENTATION IS CRUCIAL

CASE STUDY #3

Non-Healing Surgical



https://www.woundsource.com/sites/default/files/patient-condition/dehisced_surgical_wound_5.jpg



https://www.researchgate.net/publication/323339895/figure/fig2/AS:596816877862913@1519303640157/Photograph-of-left-hip-wound-dehiscence-in-case-1-following-2-stage-revision-total-hip.png

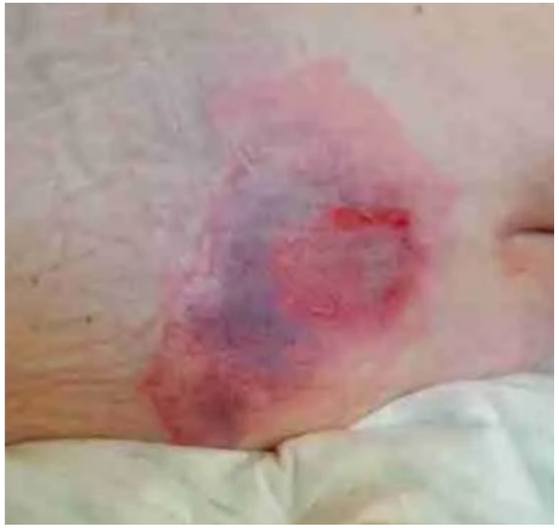
CASE STUDY #3

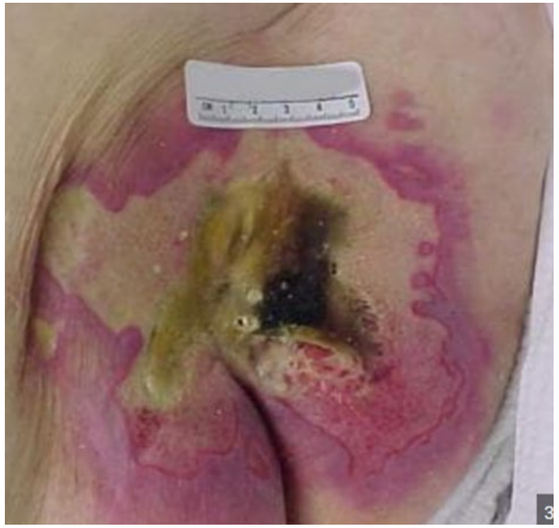
Non-Healing Surgical

- Surgical incision is red or starting to drain
- Physician notified
- No new orders
- Watch and wait

CASE STUDY #4

Infected "Septic" Sacral Ulcer





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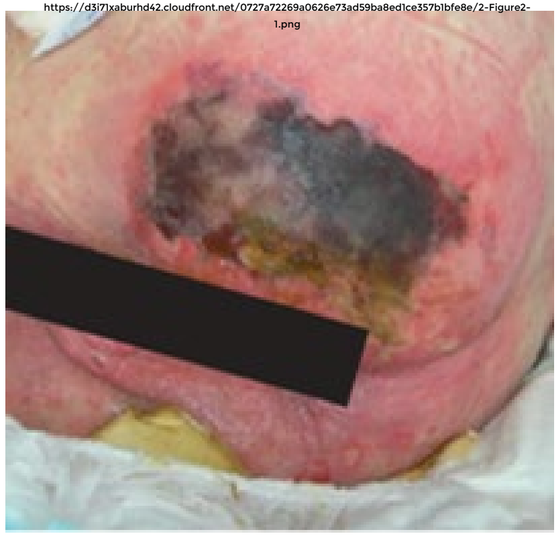
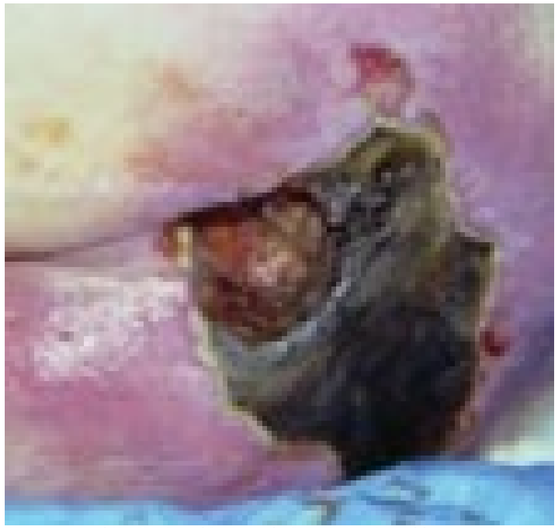
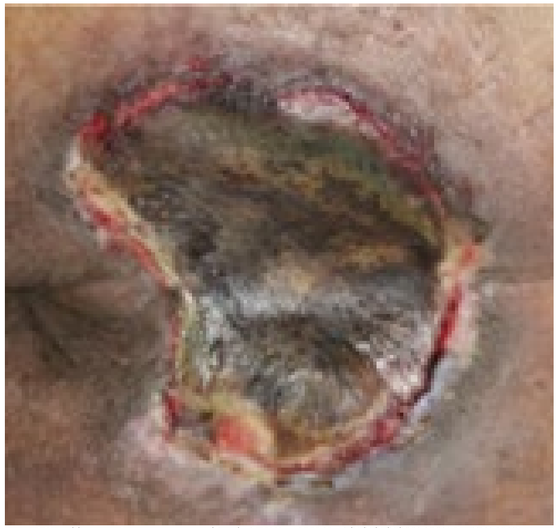




http://sci.washington.edu/images/unstageable-a.png



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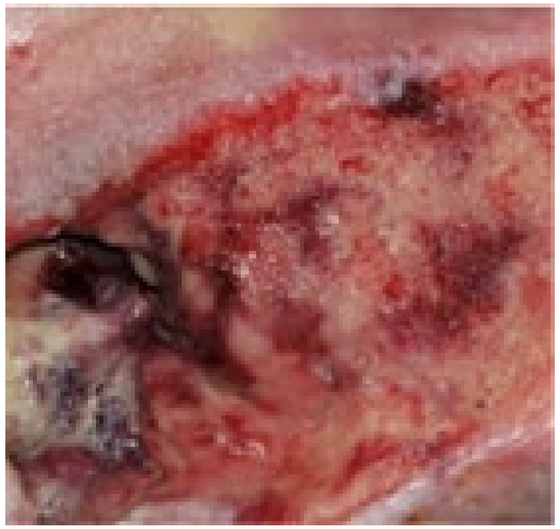


Not

CASE STUDY #4

Acute Condition

Requires Aggressive Management

- Labs
- Debridement (Bedside vs. Surgical)
- Culture (Aerobic and Anaerobic)
- Test for Osteomyelitis
- Monitor for Sepsis

CASE STUDY #5

Non-Compliance

https://www.nursegonestrong.com/blog/the-non-compliant-patient-are-we-any-better

CASE STUDY #5

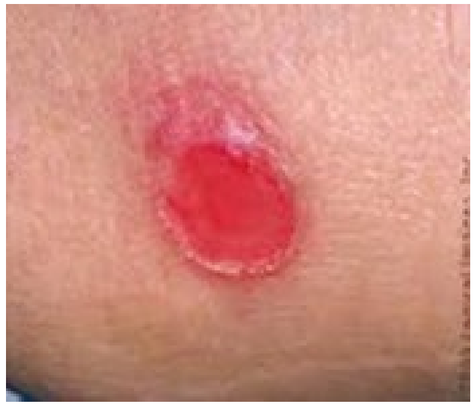
Non-Compliance

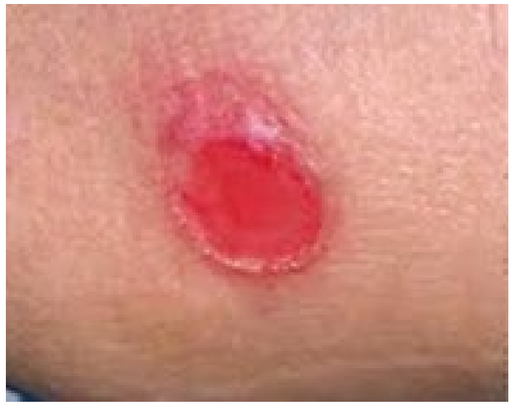
- Off-Loading
- Showers
- Dressing Changes

CASE STUDY #6

The Minimalist

- PRESENT FOR 12 WEEKS
- GETS BETTER …GETS WORSE
- VIRTUALLY STAYS THE SAME
- COMORBID CONDITIONS
- ANNUAL SURVEY RESIDENT OF FOCUS





https://ulcercare.weebly.com/uploads/4/8/9/2/48922449/2087720.png?451

CASE STUDY #6

The Minimalist

RESIDENT SHOWS UP NUMEROUS TIMES ON THE 2567 IN MULTIPLE CITATIONS...

- ACQUIRED PRESSURE INJURY
- INCONTINENCE CARE
- FEEDING AND ASSISTING RESIDENTS IN THE DINING ROOM
- COMPREHENSIVE CARE PLANS

PREDICTION

- Meeting Utilization
- Advocate For Awareness
- Anticipate Transition
- Communicate Prognosis

In Conclusion:

- Early Assessment
- Accurate Identification
- Aggressive Intervention
- Detailed Documentation
- Thorough Communication
- Comprehensive Risk Management

THANK YOU

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References:

- Lyder CH, Ayello EA. Pressure Ulcers: A patient Safety Issue. In: Hughes RG, editor. Patient Safety and Quality: An evidenced-Based Handbook for Nurses. Rockville (MD): Agency for Healthcare Research and Quality (US); 2008Apr. Chapter 12.
- Minimum Data Set (MDS) Section M: Skin Conditions. CMS's RAI Version 3.0 Manual. October 2019
- National Pressure Injury Advisory Panel (NPIAP). National Pressure Injury Advisory Panel (npiap.com). Accessed January 18, 2023
- State Operations Manual Appendix PP-Guidance to Surveyors for Long Term Care Facilities (Rev. 208, 10-21-22) .
- Zulkowski K. Wound Classification. Agency for Healthcare Research and Quality. Accessed January 10, 2023