

Careful assessment of Deep Tissue Injury



Even with intervention some Deep Tissue Injuries progress

- It is important on admission assessment and discussion with family that some pressure ulcers may progress although proper intervention has been provided



Suspected Deep Tissue Injury



Cover with Hydrocolloid to protect from stooling and friction



Pressure Ulcers: Impact

Pressure ulcers are painful, costly and often preventable complications that threaten many individuals in hospitals, nursing homes, and home care.⁵

- Reduce quality of life for patients and their caregivers⁵
- A single pressure ulcer can increase hospital charges by \$2,000-11,000(based on 1999 costs)⁵
- Can increase morbidity and mortality⁵
- Can increase length of stay of hospital stay five-fold⁵



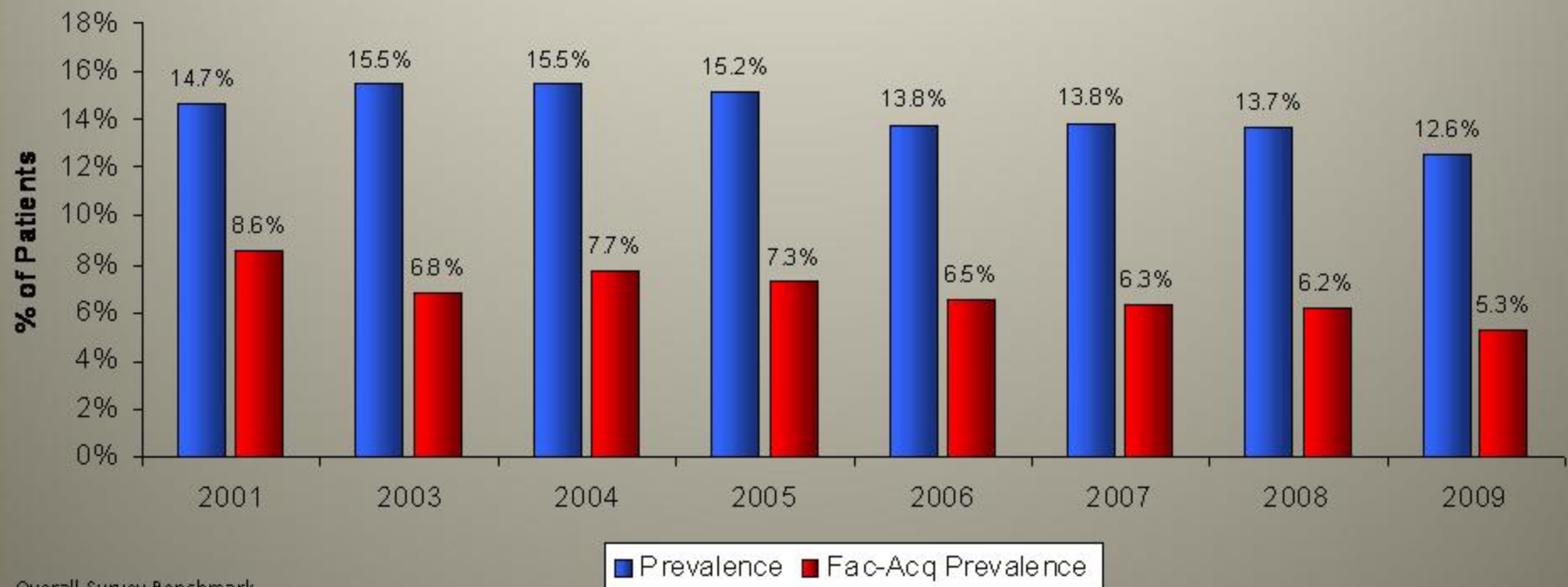
Prevalence and Consequences of Pressure Ulcers

- Reported prevalence of Stage 2-4 pressure ulcers ranges from 3-11% in hospitalized patients
- 2008 survey of 726 facilities (85,161 patients)
 - Fac-Acq = 6.25%
 - Fac-Acq excluding Stage 1 = 3.8%

Prevalence Trend Chart – All Facilities

	2001	2003	2004	2005	2006	2007	2008	2009
Participating Facilities	275	461	645	651	730	653	784	876
Patients Surveyed	33,907	61,427	84,487	85,838	92,192	82,003	92,750	96,068
Patients with Pressure Ulcers	4,977	9,550	13,136	13,027	12,732	11,349	12,705	12,076
Patients with Fac-Acq PU's	2,903	4,155	6,533	6,283	5,962	5,189	5,731	5,092
Prevalence	14.7%	15.5%	15.5%	15.2%	13.8%	13.8%	13.7%	12.6%
Fac-Acq Prevalence	8.6%	6.8%	7.7%	7.3%	6.5%	6.3%	6.2%	5.3%
Prev Excluding Stage 1	9.2%	10.2%	10.3%	10.0%	9.4%	9.6%	9.7%	9.2%
Fac-Acq Prev Excl Stage1	4.3%	3.5%	4.1%	3.9%	3.5%	3.7%	3.7%	3.3%

All Facilities Including Stage I



Obesity increasing in Geriatric Population

- National Health and Nutrition Examination Survey (NHANES) 1999-2000 report
 - 13% of population is over 65yrs
 - Expected to reach 20% population over 65 by 2030.
 - Estimated 40% between 60-69 yrs BMI >30
 - Estimated 30% between 70-79yrs are obese

Risk of Pressure Ulcers in Fecally Incontinent Patients

- Analysis of 2189 patients from one institution
- Patients with fecal incontinence were 22 times more likely to have pressure ulcers
- Patients with fecal incontinence and impaired mobility had a 37.5-fold increase in pressure ulcer risk

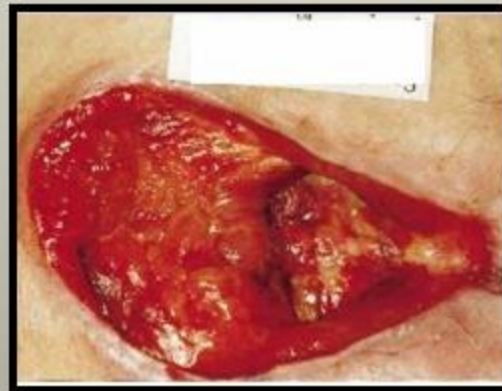
Background

- Carondelet St Mary's
402 licensed beds
- 40 bed intensive care
unit
- 57 bed Emergency
Room



Scope of the Problem

- In 2005 based on trends projected, each day over 100 patients throughout Ascension Health facilities could develop nosocomial pressure ulcers after admission



With a potential annual impact over 36,000 patients estimated annual cost of \$50-70 million

Safe patient handling and staff injuries for nursing staff

- Repositioning patients in bed and toileting patients identified are the high-risk tasks for nursing staff.
- At Carondelet the nursing staff transfers from bed to stretcher or bed to chair/commode over 5000 times daily including repositions patients over 2000 times daily

Wound Debridement

Wound Management Plan of Care

Wound Debridement is removal of devitalized tissue from the wound bed.
5

- Autolytic debridement: The removal of devitalized tissue using moisture-retentive dressings
- Biodebridement: The use of maggots to remove necrotic tissue
- Enzymatic (chemical) debridement: The removal of devitalized tissue by applying proteolytic enzymes
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Wound Management Plan of Care

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- Maintenance debridement: Repeated debridement until necrotic, devitalized tissue is removed from the wound bed.
- Sharp (surgical) debridement: The removal of devitalized tissue by a sharp instrument, e.g., scalpel, scissors, curette.

Autolytic Debridement

- **Aiding autolysis⁵**
 - Endogenous enzymes liquefy necrotic tissue
 - Requires moist wound environment
 - All types of debridement will increase wound size
- DuoDERM Gel
- DuoDERM Extra Thin dressing
- DuoDERM CGF[®] dressing
- Versiva[®] XC[®] dressing
- AQUACEL dressing
- AQUACEL Ag dressing
- KALTOSTAT Alginate Dressing



Debridement

Contraindications for Wound Debridement:

- “Dry, stable (i.e., noninfected or nonfluctuant) ischemic wounds or those with dry gangrene should not be debrided until perfusion to the extremity has improved (Bale, 1997b; Bates-Jensen, 1998).”²⁰
- “. . . stable eschar covered heels (i.e., absence of edema, erythema, fluctuance or drainage).”²⁰
- “Clean, viable tissue”²⁰



Autolytic Debridement



Pressure ulcer appropriate for autolytic debridement



Following Autolytic debridement



Leg ulcer with Venous Stasis injury
appropriate for autolytic debridement



Following Autolytic debridement



A review of 99 studies indicated*

- Alginates/hydrofibers alone or in sequential treatment with hydrocolloids were better than other modern dressing for debriding necrotic wounds and reducing wound area

Prevent Premature Wound Closure¹⁷

- Goals
 - Prevent premature wound closure
 - Prevent epibole
 - Prevent abscess formation
- Loosely fill *all* cavities with appropriate dressing
- Fill cavity to the level of the epidermis



Wound Management Highlights:

- **Continue with prevention interventions for patients with a pressure ulcer to prevent further pressure ulcer development.¹³**
- **Cleanse wound with a noncytotoxic wound cleanser.¹³**
- **Debride devitalized tissue when appropriate⁵**
- **Provide/maintain a moist wound environment¹⁷**

Wound Management Highlights:

- **Prevent premature wound closure¹⁷**
Eliminate dead space¹³
- **Absorb excess exudate¹⁷**
- **Obtain healthy wound edges¹⁷**
- **Obtain healthy surrounding skin¹⁷ Protect
periwound skin¹⁸**
- **Prevent and manage infection**
- **Control Odor¹⁸**

Types of Wounds



Burns Assessment

- **Assessment of burns**
 - Type of burn – thermal, chemical, electric, or radiation⁴
 - Size of burn – Percent of Total Body Surface Area Burned (TBSAB)⁴
 - Depth of burn – superficial, superficial partial-thickness, deep partial-thickness, full-thickness⁴
 - Severity⁴ – minor, moderate or major
 - Based on TBSAB



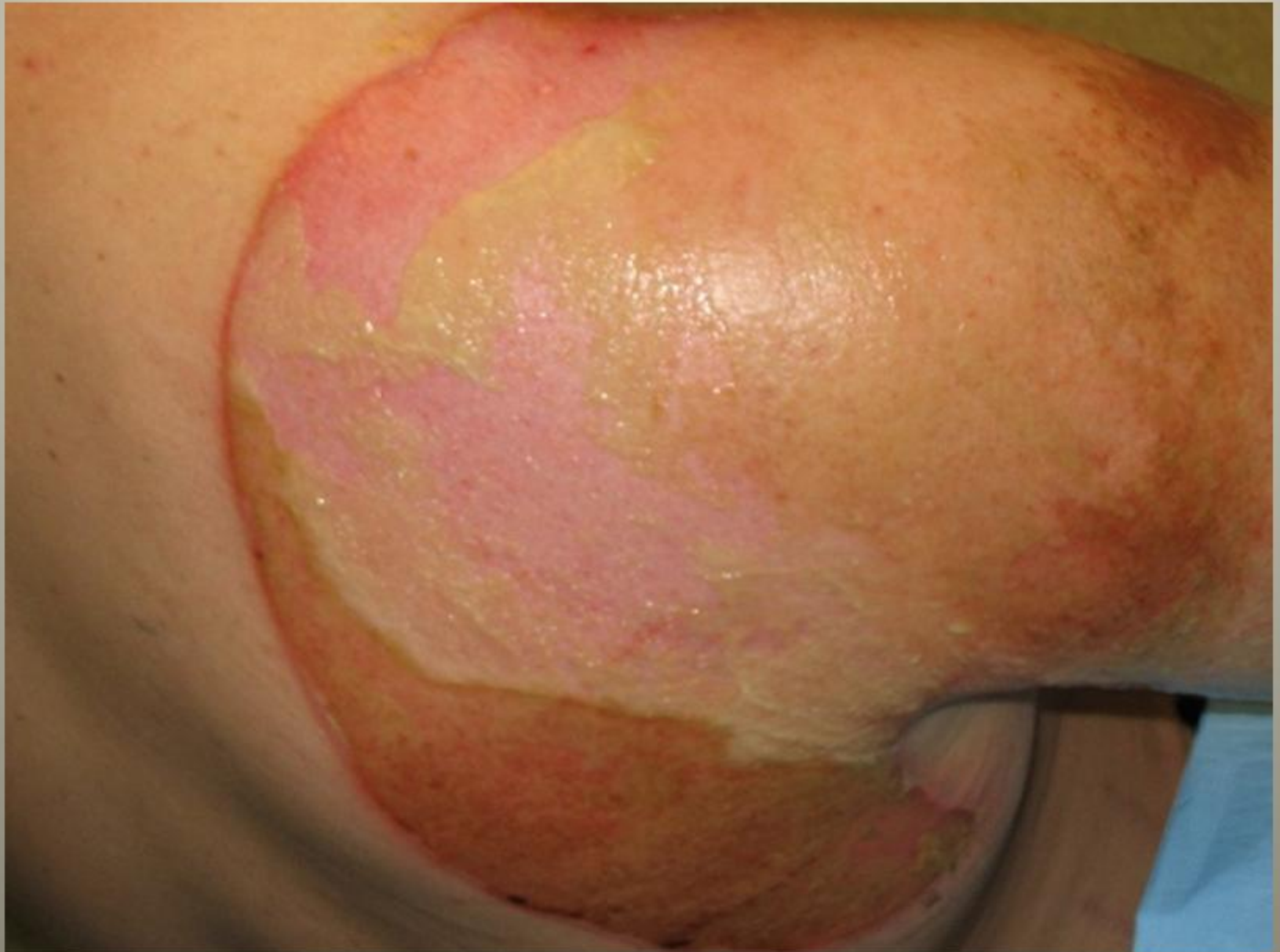
Day 0

Post Burn Day 2

08/09/2004















Day 4

08/13/2004



Day 7

08/16/2004







Initial Consult

Post Burn Day 9
Application Day 7





Day 13

Prior to secondary
dressing removal



Removal of the
dressing on lower
arm



Removal of the
Hydrofiber[®]
Dressing
from upper arm



Entire Dressing is Removed

- Patient received only one application of the Hydrofiber[®] Dressing
- 4 Clinic visits





