Cost Effectiveness in Wound Care

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Disclosure

- I have nothing to disclose in relation to this lecture or relevant financial relationships.
Hottest topic in the Industry

- $20 Billion spent yearly on Wound Care... the cost to achieve the desired goal!

- What are your goals? ...

- The goals across the care settings...

- How do we achieve these goals?
Decisions in Wound care

- **Acute Care**
  - Quick and Immediate wound changes
  - Avoid 3+ day dressings
    - could lead to negative outcomes and possible litigation
  - Interdisciplinary teams prevent legal issues and deficiencies

- **Community Setting**
  - Chronic Wounds
  - Biggest impact with cost containment
  - Aggressive wound care is more cost effective

Any setting...Develop a Formulary
Back to Basics…

- Wound Healing
- Wound Assessment
- T I M E
- Patient Assessment
- Wound Dressings
Wound Healing

- **Phases of Healing**
  - Homeostasis
  - **Inflammatory** – 2-5 days
  - **Proliferative** – 2 day to 3 wk
  - Maturation – 3 wks to 2 years

- **Moist Wound Healing**

- Acute vs Chronic
- Recent treatments
- Colonized or Infected
- Drainage
- Mechanical problems
- Venous and arterial components
- Healing potential
- Goals for the wound
Wound Assessment

- **Dry** – add moisture
- **Shallow** – protect
- **Draining** – absorb
- **Deep** – fill deficit
T I M E

■ T: Tissue, non-viable or deficient
■ I: Infection or Inflammation
■ M: Moisture Balance
■ E: Edge of wound – non-advancing or undermined
Pressure

Offloading is Key!!
Patient Assessment

- Life style
- Ability to care for self
- Mobility – can they offload safely
- Caregiver Support
- Reimbursement status
- Psychosocial
- Nutritional status
Choosing a Dressing

- There are 2000+ dressings on the Market

- Will it facilitate healing in timely manner?
- Will it progress toward healing to prevent re-admission?
- Does it require frequent assessments?
- How much Nursing time is required?
- How much Nursing expertise is required?
- Is it slowing the healing?
- Is it appropriate for a variety of populations?
- Can dressing be continued on discharge?
- How much does it cost?
Confused??

What did she say??

Seriously…?

OMG!

Really…!

LOL
Ideal Dressing

- Provides moisture
- Provides thermal insulation
- Removes excess exudates and toxins
- Protects from trauma and infection
- Facilitates debridement of necrotic tissue
- No trauma with removal
- Hydrogel – may use contact layer
- Protect peri wound skin
- Aquacel
- NPWT
- Hydrogel
- Contact Layer
  - Adaptic
  - Mepitel
  - Restore
- Santyl (collagenase)
- Mesalt
- Foams
- **Debride**
  - Santyl
  - Mesalt
  - Wet to Dry ??

- **Antimicrobials**
  - Hydrofera Blue
  - Honey

- **Gauze or Foam**
- Dakins
- Santyl – (collagenase)
- Silver
- Mesalt
- Hydrofera Blue

Cover Dressing?
- Debride
- Mesalt or Santyl
- Dakins
- Hydrofera Blue
- Silver
- Collagen
Adjunctive Therapy

- Negative Pressure Wound Therapy – NPWT
- Electrical Stimulation - E-Stim
- Hyperbaric Oxygen Therapy – HBOT
- Growth Factors
- Mist Therapy
- Wound Matrix
  - Oasis * Collagen (Promogran and Prisma)
- Skin Substitutes
  - Dermagraphe * Integra * Allograph
Summary
…cost to achieve the desired goal!

- Clinical Assessment
- Goal oriented treatment
- Know the MOA of the products
- Don’t be afraid to change the plan

- Holistic * Patient centered * Interdisciplinary * Evidence based = Cost effective
Developing a Formulary

- Evaluate the unit cost, usage and outcomes of product categories
- Consider technology that shortens healing time
- Driven by healing rates and resource utilization
- Compare prices and negotiations with vendors – shop the most suitable options for your setting
- Use one vendor to get best costs with reasonable return policy
- Review delivery options and costs – drop shipping
- Inventory space
- Avoid large inventory as treatment plans change often
- Careful not to duplicate products with same actions and indications
- Develop charts and guides to assist with which dressings are suitable for specific wound characteristics
- Key to success: Educate the staff!
Assess Wound

- Clean
  - Wet
  - Dry
    - Eschar Debridement
      - Mechanical
      - Autolytic
      - Enzymatic
    - Foams Alginates Hydrofibers
  - Hydrogels Cellulose
- Infected
  - Wet
    - Curette culture
  - Dry
    - Silver Iodine Peroxide Bleach
    - Silver Mupirocin
    - Film Hydrocolloids Collagens Offloading
    - Pressure
      - Impregnated gauze Collagens
# Occlusive Dressings

<table>
<thead>
<tr>
<th>Dressing</th>
<th>Properties</th>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foams</td>
<td>Thermal insulation</td>
<td>3 days, moderate exudate, pain</td>
</tr>
<tr>
<td>Alginates &amp; Hydrofibers</td>
<td>Absorption, filler</td>
<td>3 days, heavy exudate, hemostasis</td>
</tr>
<tr>
<td>Hydrogel &amp; Cellulose</td>
<td>Donate moisture, debride DFU</td>
<td>daily, dry wounds, pain, cover dressing to stay moist</td>
</tr>
<tr>
<td>Films &amp; hydrocolloid</td>
<td>Maintain moist environment</td>
<td>7 days, protect from shear and friction, autolytic debridement</td>
</tr>
</tbody>
</table>
## Antimicrobials

<table>
<thead>
<tr>
<th>Dressing</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Iodine</td>
<td>Broad spectrum</td>
<td>QOD, venous &amp; foot ulcers. Caution w/ thyroid Disease</td>
</tr>
<tr>
<td>Honey</td>
<td>Wound prep and healing, absorption and debridement</td>
<td>3 days - Slough, necrotic tissue. Septic wounds. Cover dressing</td>
</tr>
<tr>
<td>Peroxide &amp; Bleach</td>
<td>Antiseptic (Dakins 0.25%)</td>
<td>Daily – broad toxicity slows healing (use 2-3 days)</td>
</tr>
<tr>
<td>Mupirocin</td>
<td>Gram +, MRSA</td>
<td>Daily</td>
</tr>
<tr>
<td>Silver</td>
<td>Broad spectrum</td>
<td>Up to 7 days - colonized, infected wounds.</td>
</tr>
</tbody>
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# Impregnated Gauze, Debridement & Collagen

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</tr>
</thead>
<tbody>
<tr>
<td>Hypertonic Saline &amp; TenderWet</td>
<td>Absorption, debridement, protects from microbial proliferation</td>
<td>Daily - moist, necrotic, exudating infected wounds. Hypergranular tissue</td>
</tr>
<tr>
<td>Petrolatum gauze</td>
<td>Keep primary dressing moist</td>
<td>QOD – w/ antimicrobial ingredients can be primary dressing</td>
</tr>
<tr>
<td>(adaptic, xeroform)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Santyl - collagenase</td>
<td>Digests collagen in necrotic tissue</td>
<td>Daily – requires saline to activate</td>
</tr>
<tr>
<td>Collagen</td>
<td>Promote granulation – Ag available</td>
<td>3 days - bind proteases that impede healing</td>
</tr>
</tbody>
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