Limb Preservation and Advanced Wound Care

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Disclosures

No Disclosure
Wound Care as Medical Specialty

- Wound Care ≠ Dressing changes
- Healing Vs Scarring
- Comprehensive assessment of the obstacles preventing healing
- Understanding the different stages of the process of healing
- Strategies of intervention
Physician-lead Wound Care

• Medicare spending WC: 28.1 – 96.8 Billion
  – DFUs: 6.2 – 18.7 Billion
Physician-lead Wound Care

- CMS Study on Wound Care Cost
- Advances in Wound Care knowledge and therapeutic strategies
- Delay in patient seeking medical attention and referral to wound centers
- Lack of knowledge of cutting edge advances available in wound care by the medical community
- Referrals to Wound Centers (WCs) or Hospital admissions at advanced unsalvageable states.
Diabetic Foot Ulcer and vascular insufficiency.
Statistics

- 29.1 million Diabetics in the US
- 1-4% of people with Diabetes get Diabetic Foot Ulcers (DFU) every year and 15-25% will get one in their lifetime
- 85% of amputations start from ulcers
- 45% of patients with DFUs will die within 5 years
- Factors to amp: Gangrene, infection, non-healing
Health-economic consequences of Diabetic Foot Ulcers

• High cost for the individual and society
• Total cost for healing of infected ulcers not requiring amputation: $17,500
• Cost of lower extremity amputations are above $30,000
Wagner Classification

Grade 0: No open lesion
Grade 1: Superficial ulcer
Grade 2: Deep ulcer
Grade 3: Abscess osteitis
Grade 4: Gangrene forefoot
Grade 5: Gangrene entire foot
To amputate or not to amputate
Gangrene
Non-healing

Biomechanically unviable foot has minimal chances to heal
Infection
Amputation: Yes or No
Advanced Wound Care

- Offloading
- Sequential debridements
- Infection management
- Wound Surface Decolonization, physiologic environment and pro-granulation
- Glycemic control
- Vascular intervention
- Nutritional support
Hyperbaric Oxygen Therapy

- Reverse hypoxia
- Alter ischemic effect
- Influence vascular reactivity
- Reduce edema
- Stimulate Nitric Oxide changes
- Neovascularization
- Modify growth factors and cytokine expression
- Promotes cellular proliferation
- Accelerate collagen deposition
- Enhance microbial oxidative killing
- Improve selected antibiotic exchange across membranes
- Bacterial Toxin denaturing
- Enhance oxygen radical scavengers decreasing ischemic repair injury.
Hyperbaric Oxygen Therapy
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Case 1

• 66 year-old Caucasian female with poorly controlled type 2 Diabetes with neuropathy
• PAD ABI: 0.7 with monophasic pulses
• Obesity BMI: 45
• Hypothyroidism
Case 2

- 49 yo Caucasian male with type 2 DM and neuropathy
- CRF S2
- Obesity BMI: 49
- HTN, CAD, Gout
Chronic Wound Care

- Vascular Surgery
- ID
- PCP – Endocrinology
- Orthopedics – Podiatry
- Dietary
- Orthotist
- PT
Remission status

1.) Foot screening
2.) Patient education
3.) Appropriate footwear selection
4.) Daily foot inspection by the patient
5.) Management of simple foot problems (to prevent deterioration into more significant problems)
6.) Lifestyle modification
Thanks