Healing from the Outside In: Developing a Comprehensive Wound Care Program in Your HCH Clinic

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Columbia Wound Care Consortium
PESI
Wound Care Education Institute

No disclosures
Old Town Clinic Wound Care History...

- 2009 – MA’s did dressing changes
- 2011 – RN with some wound care experience
- 2012 – provider education session on wound care
Early Wound Care Training

OTC Wound Care Decision Tree Draft

ASSESSMENT | OBSERVATION | TREATMENT RECOMMENDATION
---|---|---
Wound Type?
- Assault injury
- Object injury
- White object
- Black object
- Deep injury

Infection?
- Yes, must be treated
- No

Bacterial infection?
- Yes
- No

Tissue Type?
- Granulating tissue
- Sclerosing tissue
- Necrotic tissue

Exudate moisture?
- High
- Low

Deep tissue to bone?
- Yes
- No

Compression?
- Yes
- No

Recurrent injury?
- Yes
- No

Instruction to be:
- Antibiotics
- Disinfectants
- Serum
- OINTMENT

If yes, compress until bleeding.

If yes:
- Compression
- Until stop
- Job Following

The protocol need be low.

Debridement:
- Necrotic tissue
- Wound bed
- Diseased tissue

Poor blood flow:
- Calcium G. injection
- I.M. injection
- Low blood pressure

Exudate:
- Serous
- Serosanguineous
- Sanguineous

CAUTION:
- Hypochloremia
- Hypothermia
- Hyperglycemia

I.M.

TREATME
RN only clinic

- Saw average of 24 pt per week
- Unable to rx if needed without provider support
- Unable to manage DM ulcers
- Unable to change dx coding so it must be accurate from the ordering provider
- Unable to place orders for home care supplies
- Some burnout being the only one performing this service
- MA’s were still doing some dressing changes
- Still referred out
OTC Wound Care History… cont.

- 2013 – RN’s left to pursue other employment
- Back to MA’s doing wound care and referring out
- Started taking some basic wound care classes
- Shadowed with a wound care clinic and a podiatry clinic
Starting September 2014

- 1 provider, 1 RN, 2 MA’s (RN has two other three hour shifts per week)
- Three hours three days a week
- Forms created to simplify charting (99213)
- If debridement is performed code as 97597 (<20) and 97598 (>20)
- Ability to address things as they arise like a URI or new cellulitis etc. (99214?)
- Ability to perform ABI’s to assess for appropriateness for compression

May 2015 – volunteer MD with wound care experience
Basic needs:

- Space with exam tables that pts can access
- Trained staff
- Billing/coding support, especially initially
- Basic dressing and cleansing supplies, list included later
- Basic topical agents, list included later
- Ability to culture is very helpful
- Quick text or form capability is helpful
- DME suppliers will help create order forms for home supplies
OTC Wound Care Clinic

**Successes**
- Better outcomes
- Better engagement
- Builds more trusting relationships with pts and the entire clinic
- Often able to be flexible with schedule
- Reduces burden on PCP’s

**Challenges**
- Lack of housing…
- Advance scheduling
- No shows still happen
- Poor/no wound care plan on hospital d/c
- Poor nutrition
This is a ____ year old female who presents to the clinic today for evaluation of a wound.

It is a _____. This started about (date preferred) _______ wks/mns/yrs. It was caused by _____________.

Have you ever had this type of a problem before?
   If so, when?
   Where on your body?

So far, the patient has tried/done _________ to treat it.

Is there any pain or itching of wound or skin around wound?

If yes, how would you rate the pain 1-10?

When was the last time you had the bandage changed? By whom?
DOCUMENTING new pt visit - .wcnew cont.

Do you have a hx of any of the following?

- Cardiovascular Disease:
- Respiratory Disease:
- GI problems:
- GU problems:
- Mobility problems:
- Diabetes:
- Radiation tx/chemotherapy:

Each of these conditions potentially plays a role in wound healing.
This is a __ year old female who presents to the clinic today for wound care. She has a _______ that has been present for about ________wks/mns/hrs.

Are there any other/new wounds that need to be addressed?

If there is anything new, when did it start?

Have you been elevating wound site:
  using ice/heat:
  pain medications:
  anti-inflammatory medication:
  any other treatments at home:

How has the bandage been since the last time we saw you (comfort, odor, drainage)?

Is there any pain or itching of wound or skin around wound?

If yes, how would you rate the pain 1-10?

When was the last time you had the bandage changed? By whom?
### Vital signs:

**Patient Profile:** 33 Years Old Male  
**Height:** 63 inches  
**Weight:** 164.0 pounds  
**O2 Sat:** 98 %  
**Temp:** 97.7 degrees F oral  
**Pulse:** 84 / minute  
**Resp:** 12 per minute  
**BP sitting:** 120 / 80
This is a well appearing female who is in no acute distress. She is pleasant and cooperative during our interaction. She is adequately groomed, has a pleasant affect, and makes good eye contact during our interaction. HEENT: Eyes: EOMs grossly intact, sclera is anicteric and non-injected. Lungs: Respirations are even and unlabored. Skin: Warm and dry. Fill in some description of the wound that is not listed below i.e.. Excessive scale or eschar.
Debridement: After PAR-Q, and verification of allergies, the area was covered with 1% viscous lidocaine and gauze. After 10 to 15 minutes the lidocaine was removed with gauze. Using a curette some of the slough and devitalized tissue was removed from the wound beds. Small amount of bleeding as desired. Only a portion of this could be debrided. This will need to be repeated at her next visit. Approximately ___ sq cm of tissue was debrided. The patient tolerated the procedure well.
Location:
Surgical/nonsurgical:
Color:
Size (L x W, in cms):
Incisions(approximated edges, dehiscence, evisceration):
Undermining:
Induration:
Tissue edema proximal to wound/pitting:
Granulation:
Drainage type:
Drainage color:
Drainage amount:
Drainage consistency:
Drainage odor:
Wound cleaned with:
Wound dressed with:
Visit frequency:
  - .1 – once a week
  - .2 – twice a week
  - .3 – three times a week
F/u for:
On date:
  - For the A/P
    - .w – wound care as above
Objective:
This is a well-appearing male who is in no acute distress. He is pleasant and cooperative during our interaction today. He is adequately groomed but does small slightly of EtOH. He has a pleasant affect and makes good eye contact during our discussion. HEENT: Eyes: Extraocular muscles are grossly intact. Sclera is anicteric and noninjected. Lungs: Respirations are even and unlabored. Skin: warm and dry. The wound on the R hip is healing nicely.

Debridement: After PAR-Q, using forceps and scissors some of the slough and dried tissue was removed from the wound beds and periwound skin. Some slough was debrided from the middle finger. This may need to be repeated at his next visit. Approximately 2 sq cm of tissue was debrided. The patient tolerated the procedure well.
Location: R hip
Surgical/nonsurgical: nonsurgical
Color: pink and white
Size (L x W, in cms): 0.3 x 0.1 x 0.2 cm
Incisions(approximated edges, dehiscence ,evisceration): none
Undermining: none
Induration: none
Tissue edema proximal to wound/pitting: none
Granulation: nongranular
Drainage type: serous
Drainage color: yellow-brown
Drainage amount: small
Drainage consistency: dry
Drainage odor: none
Wound cleaned with:
- washed with a chlorhexidine sponge
- rinsed with two 10 ml NS filled syringe
- 3x3 gauze to cleanse and dry

Wound dressed with (ointment, dressing):
- Gentamicin ointment 0.1 % to the wound bed and surrounding dry tissue
- Covered with an Allevyn gentle border 3x3"
- Applied skin prep to borders to increase adhesion.
- Placed a medium Tegaderm over the dressing.

Visit frequency: once per week

F/u for: PCP appt
Case Study #1  77 yo male

- CHF pt with leg laceration surgically repaired in the ED but dehiscence because of edema
- Needed to heal by second intention
- Dressing changes with debridement 3x/week for several weeks
- Then weekly with compression wraps
- Fully healed pt now has reusable compression wraps
Case Study #2  53 yo male

- Pt with a remote hx of skin grafts got pressure sores from sleeping on concrete.
- Challenging case because of continued cold and pressure.
- Initially 3x/week for dressing and some debridement.
- Still slow healing and prealbumin was 19 (Normal range: 20 to 40)
- Enrolled in Food Rx “shelf stable protein” program.
- Eventually once a week with a waterproof dressing.
- Pt got housing in a local hotel with a roommate and wounds resolved.
Case Study #3  58 yo female

- Well controlled DM pt with chronic venous stasis ulcers that kept reopening.
- Occurring for many many years.
- Compression and debridement works but things keep reopening.
- Prealbumin level is 16 (Normal range: 20 to 40)
- Food Rx program!
- Wounds fully heal and pt now only needs compression hose
Case Study #4  56 yo male

- A fall caused a buttocks hematoma requiring surgical debridement
- Discharged from the hospital to a SNF
- Benefits ran out and sent to our Recuperative Care Program – too soon!
- Extremely wet wound requiring daily dressing changes
- Coordination with HH challenging at first but ultimately worked well
- Pt gets housing when nearly healed.
- Temporarily lost to follow up until seen again at our BCC clinic
- Wound resolved...
Case Study #5   63 yo female

- Female with marginally controlled HTN
- Initial leg swelling thought to be from amlodipine
- Marginal improvement with removal of the drug
- Tripped on the bus and got a wound on her shin that wouldn’t heal.
- Ruled out complications like osteomyelitis and referred to wound care.
- She was discharged from that clinic because of missed appts
- Eventually hospitalized for severe cellulitis
- Worked with home health and OTC wound care
- Finally resolved after more than a year of tx from all sites
- Wears good compression socks daily and has no issues plus better HTN control
Patient presentation:

- Robert
Statistics

Wound Care Clinic – 9 hours
- Capacity = 36 pt per week
- Averaging 30 in first year of operation

RN only clinic – 24 hours
- Capacity = 32 pt per week
- Averaging 25 per week
DRESSING TYPES – gauze
$0.02 - $1.85

- Loose open weave
- Non-woven**
- Non-adherent (telfa)**
- Petrolatum (plain or xeroform)
- Rolled fluff gauze (Krinkle)
- Conforming/stretch
- ¼” and ½” packing – plain or iodoform
- Gauze bandage roll (Kerlix)
DRESSING TYPES – contact layer
$1.00 - $10.00 and up

- Silicon dressings
  - Mepilex
  - Mepitel
  - Adaptic **
  - Restore
  - Versatel
DRESSING TYPES – absorbent
$0.11 - $5.48

- Calcium alginate fluff
- Calcium alginate pad impregnated with silver
- Foam
  - Allevyn
  - Hydrophilic
- Abdominal pads
- Highly absorbent (Exu-dry)
DRESSING TYPES – coverings
$0.55 - $5.48

- Island dressings
- Hypafix Tape – tends to be gentler on skin
- Clear adhesive dressing (Tegaderm)
- Hydrocolloid
- Wound closure strips
- Cohesive elastic wrap (Coban)
- Tubular Elastic Support
Topical Agent list: $0.49 - $30.80

**Antimicrobials:**
- Mupirocin
- Silver sulfadiazine
- Gentamicin
- Medihoney
- Xeroform gauze

**Anesthetic:**
- Lidocaine - injection, ointment, cream and viscous

**Adhesive Remover and Skin-Prep**

**Moisturizers:**
- Hydrogel
- Hydrophor

**Anti-itch:**
- Triamcinalone Ointment

**Barrier:**
- A&D Ointment
- Calmospetine
- Zinc oxide

*Barriers can be antifungal as well.*
Cleansing agents: key to good wound care

1) Good old soap and water in the sink - great for hand or arm wounds
2) Shur-clense and warm water - mild surfactant, gentle on wounds
3) Chloroxyleneol 3% impregnated scrub brush - good for feet and legs, mild antibacterial action
4) Chlorhexidine - only occasionally used as it is alcohol based and can damage granulation tissue, best for new acute wounds, soaking an area prior to a procedure, or mixed with water as a foot soak
5) Prontosan - wound surfactant. Soak gauze and leave on wound for 10 min, rinse with water
6) Normal Saline - only needed for flushing things with undermining or tracts (abscesses), not appropriate for regular chronic wound cleansing
# Compression:

Just a reminder – ABI’s first

<table>
<thead>
<tr>
<th>ABI Value</th>
<th>Interpretation</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 1.4</td>
<td>Calcification / Vessel Hardening</td>
<td>Refer to vascular specialist</td>
</tr>
<tr>
<td>1.0 - 1.4</td>
<td>Normal</td>
<td>None</td>
</tr>
<tr>
<td>0.9 - 1.0</td>
<td>Acceptable</td>
<td></td>
</tr>
<tr>
<td>0.8 - 0.9</td>
<td>Some Arterial Disease</td>
<td>Treat risk factors</td>
</tr>
<tr>
<td>0.5 - 0.8</td>
<td>Moderate Arterial Disease</td>
<td>Refer to vascular specialist</td>
</tr>
<tr>
<td>Less than 0.5</td>
<td>Severe Arterial Disease</td>
<td>Refer to vascular specialist</td>
</tr>
</tbody>
</table>
Summation:

- Wound care clinics are fairly easy to set up
- Not all of the supplies listed are needed to get started
- It is great for patients' health and encourages engagement
- Often can catch/address other problems as they arise
- Easy to consult with the PCP, generally
- Opportunities for some providers and staff to gain skills
  - Allows other providers in the clinic to more easily refer and not worry
- Financially sound (esp. if you have wrap payments)
A few things that interfere with healing

- Nutrition
  - Food Rx, Vitamins/mineral
- Temperature
  - Respite
- Smoking
  - Poor blood flow, also consider arterial insufficiency (ABI)
- Diabetes
- Cleanliness
  - Ability to shower
  - Bacterial burden

This is by no means a comprehensive list, but a good place to start.
Questions?

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