Clinical Care: "Tricks of the Trade"

Edward A. Panacek, MD, MPH
Department of Emergency Medicine
UC Davis Medical Center
Sacramento, CA

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These days, Evidence Based Medicine is the focus

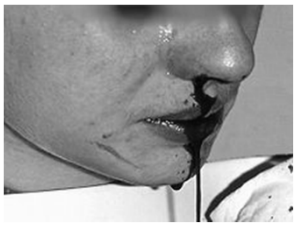
EBM
EBM
EBM

This is an EBM lecture: Experience based medicine

- ***Life improving, not life saving stuff***
- **The "little" things learned by experience**
  - **Some of it is common sense**
  - **Some comes from nurses**
- **Won't be found in textbooks**

Some different and interesting ways to look at things….

Epistaxis

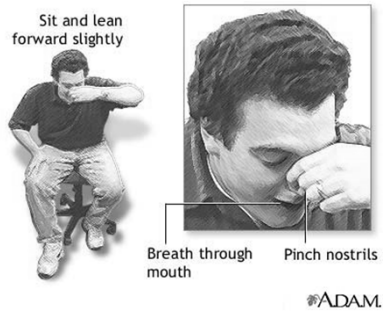


Is it my imagination, or is the incidence increasing?

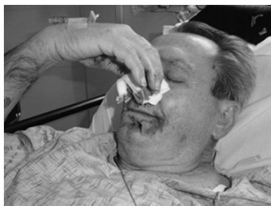
Problem: Stopping epistaxis with pressure alone

- 95% come anterior septal vascular plexus
- Can control majority with persistent pressure on the area for 10-20 minutes
- Most patients will not hold pressure for that long
  - personnel time is expensive
- Tamponade or cautery procedures often poorly tolerated, ? unnecessary, and increase expense

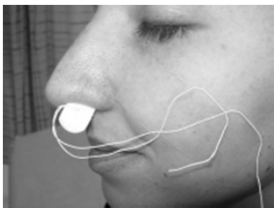
Plenty of information on the internet



But most pts till don't hold nose right: Properly done vs not



Plenty of devices and options out there But how often are they really needed?

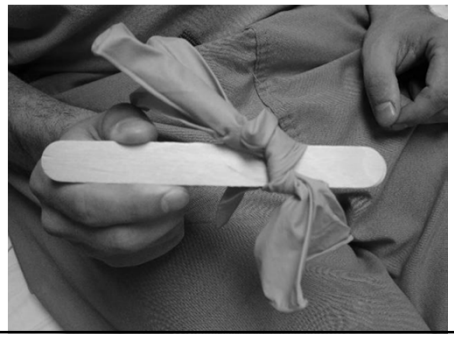


Best initial choice: The tongue depressor nasal clamp procedure

(thanks to Dr. Rose)

- Start with 2 tongue depressors
- May wrap distal ends with cloth tape for comfort
- Tie a latex glove or tourniquet around the proximal end (could use rubber band at home)
  - Roll up/down to adjust amount of tension
- Apply distal ends like a clamp to the nasal alae and have the pt watch the clock

Preparing the nasal clamp



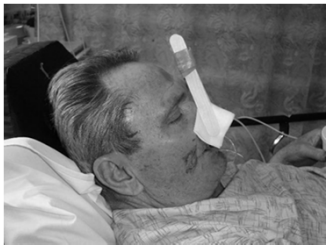
"Rose " clamp in place

Epistaxis: Other caveats

Before applying the clamp, always:

- **Have them blow all clots out first**
- **Then apply vasoconstrictors**
  - **Afrin nasal spray, or equivalent**
- **Consider repeating, if needed**

Have the pt rest and watch the clock for at least 15-30 minutes



This approach works over 90% of the time.
Higher failure rate only when very coagulopathic

Hordeolum (stye) treatment

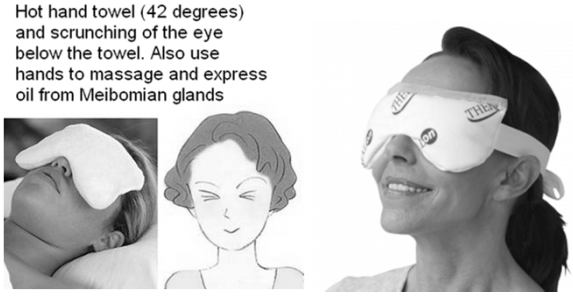
Hordeolum of the eye

The problem:

- **Treatment is primarily warm compresses for 15-30 minutes several times a day**
- **This is difficult to perform**
- **Warm moist towels don't last > few minutes**
- **Most other techniques either don't fit the anatomy or don't hold their heat for long enough**

Can use warm towel or commercial device

Hot hand towel (42 degrees) and scrunching of the eye below the towel. Also use hands to massage and express oil from Meibomian glands



Better common household solutions

Hordeolum: A solution

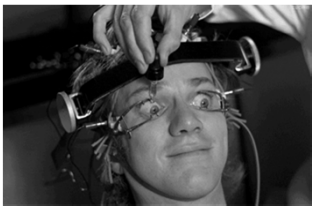
"The marriage of the egg and the eye"

- **Boil an egg for 5-7 minutes**
  - **May also microwave**
  - **Small potato is equally good option**
- **Wrap in a moist washcloth**
- **Apply to the eye**
  - **Fits the contour of the eye socket**
- **Keeps warm for 20 minutes**
  - **May reheat as needed***
  - **** May also provide a meal later***

Some things are enough to make you cry..

Like putting medical drops in the eye

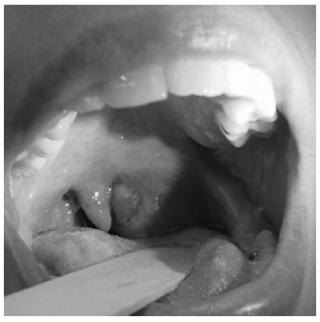
Often it goes well, but sometimes there is some resistance



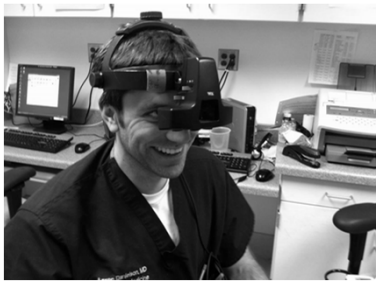
"No tears" eye drops method

- **<u>Problem:</u> Ophthalmic drops poorly tolerated by children, eldery dementia, others**
  - **Will fight to not open their eyes**
- **<u>Trick:</u> Natural flow**
  - **Position patient with head supine**
  - **Drip 1-2 drops into the inner canthus**
  - **Have them open their eyes while still supine**
    - **Drops will flow naturally into the eyes without fuss**

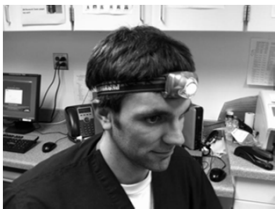
Problem: Getting great access for oropharynx procedures without using up all your hands, etc.



First of all, the light source: Old headlamp approach



Headlamp: New approach
Cheap, easy, almost disposable

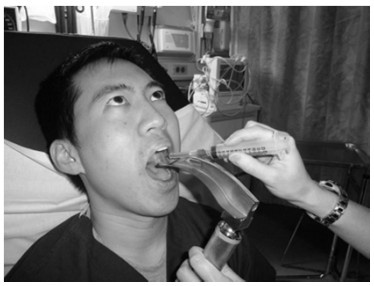


Back to our problem of great access to a PTA, without using both hands

A truly novel approach

There is a better way than this

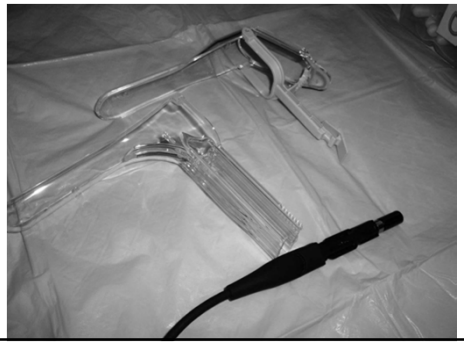
One alternative: Laryngoscope blade



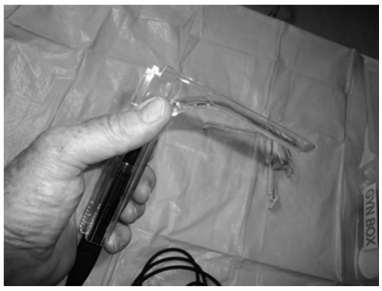
Better pharynx viewing

- **Problem:** Trying to adequately view the pharynx while draining a PTA, etc
  - Tongue depressors are often inadequate
- **Trick:** Vaginal speculum
  - Only use the bottom half to depress the tongue
  - Pt or assistant can hold down on the handle
  - Can pre-coat with lido jelly or hurricane spray
  - In some models, can insert the light source
  - Gives a great view !

Most places have these speculums

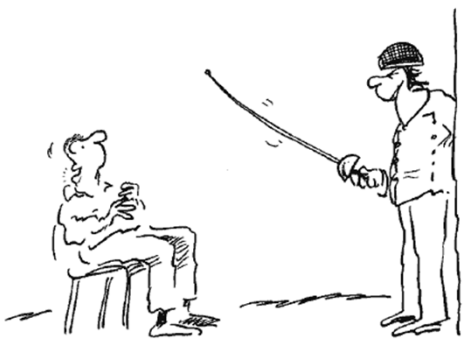


Use the bottom half only, ideally with the light source



The lower half of the speculum
Works best with viscous lido on the blade

Sometimes the pt will even assist in you in the procedure



"Brace yourself, son. When J.J. Farnsworth lances a boil - he lances a boil."

The problem : Peritonsillar abscess drainage without hitting "big red"

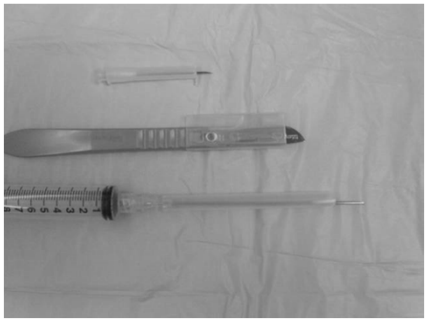
- **The internal carotid is located just lateral and posterior to the location of most peritonsillar abscesses**
- **Drainage is performed with sharp instruments**
  - **#11 blade scalpel**
  - **18 gauge spinal needles**
- **Patients can get anxious and move during the procedure**

Anxious, moving targets are not fun

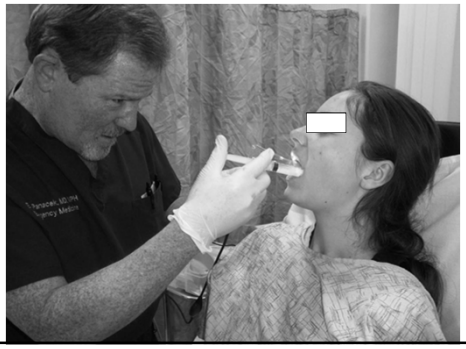
PTA solution: Instrument guards

- Guards protect against excessively deep penetration
  - If you are less anxious, so is the patient
- PTA depth usually > 8mm
- Cut the end off the plastic cap/cover of the needle to only allow <1.5 cm of needle tip
  - Or tape the protective slider in partly closed position
  - Can cut the older plastic scalpel covers
  - May need to tape the newer "protective" ones

PTA drainage devices with "guards" in place



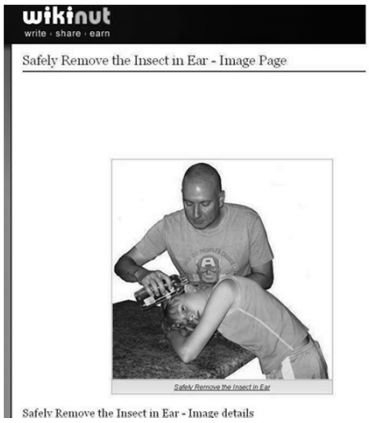
Example: Putting it all together



Problem: Insects can get into the ear canal

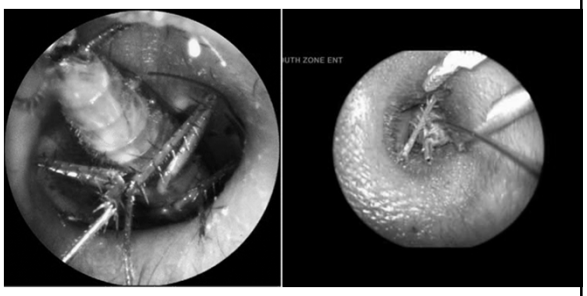
Problem: Insect in the ear canal

- The EAC and TM are very sensitive
- An insect moving against the TM can be exquisitely uncomfortable
- Pts rarely tolerate attempts to remove the live insect
- Textbooks often → drown them in mineral oil
- "Home" remedies may recommend to "drown" the insect and get them to back out
  - These are rarely successful



The internet has plenty of advice

The EAC can get irritated, sensitive



A solution: Local anesthetics

- **1-2% lidocaine solution paralyzes insects in < 10 minutes**
  - **OTC auralgen probably also works**
- **Also anesthetizes the irritated EAC and facilitates patient cooperation with removal**
- **Can remove with small hooks, curettes, micro-clamps, bayonet suction catheters**
- **Then get it out ASAP, before the EAC swells up !!**

Bad cough

Problem: Persistent severe coughing

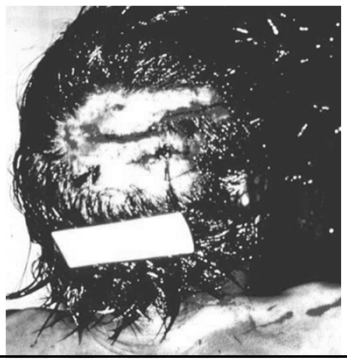
- **Is sometimes the major presenting complaint**
  - **Can aggravate asthma wheezing**
  - **Can result in post-tussive vomiting**
- **Interferes with sleep**
- **Often have failed multiple common OTC cough medications**

Persistent, resistant cough: What to do ?

Severe coughing: A solution

- Nebulized lidocaine
  - 3-5cc of 1-2% solution (4% if have it)
- Local injection solutions contain methylparaben as a preservative
  - Cardiac IV solutions do not
- Usually decreases coughing within minutes
  - Lasts much longer than the lidocaine ½ life
  - Probably breaks an irritating cycle

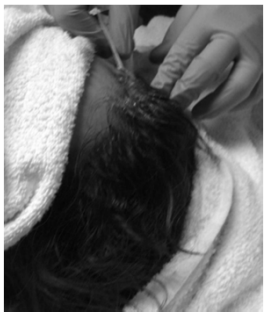
Bad scalp lacerations

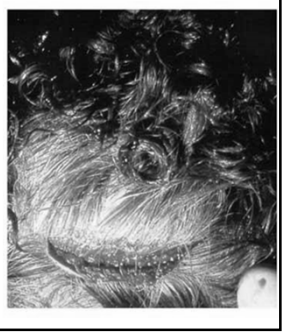


Scalp wound preparation

- <u>Problem:</u> Hair into the wound site
  - Shaving not recommended due to higher infection rates
  - Trimming can be time consuming
  - Very hard to place a sterile field onto the hair
- <u>Trick:</u> A ring of antibacterial ointment
  - Maintains clean field area
  - Can plaster the hair away from the wound
  - Sterile paper drape will stick to it and not move around

Scalp laceration: Example coated with antibacterial ointment





Tissue glue techniques

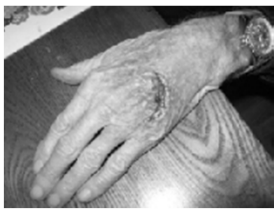
- <u>Problem:</u> Wound won't stop bleeding long enough to glue it closed properly
  - Usually don't use lido/epi injection if gluing the laceration
- <u>Trick:</u> Apply LET (or equivalent) to the wound for several minutes before trying to glue it
  - When an option, can also apply a proximal tourniquet for a few minutes before and after

Closing large/gaping wounds with glue

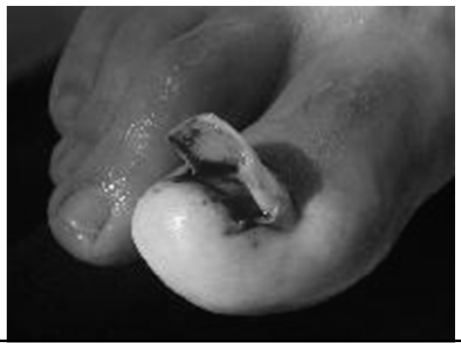
Tissue glue closures

- **Problem:** Closing large or wide wounds with tissue glue
  - Wound must be held closed while gluing.
  - Can become a multi-person procedure
  - Can require special forceps to close
- **Trick:** Steri strips first
  - Product materials state not to use over steri-strips, but much experience with this and works quite well
    - Can position the wound edges perfectly

Skin glue is great for elderly skin tears



Major nail avulsions



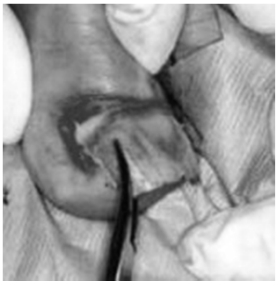
Nail injuries: What to do?

- For subungual hematomas textbook says to remove the nail if > 25%
- For serious nail injures, text says to expect an underlying laceration
- If the nail is to removed, texts recommend taking the foil wrapping from Xeroform gauze and slide it under the cuticle to maintain the matrix for nail reformation
- What???

Huh? Almost no one wants to do that

Dermabond: Another use

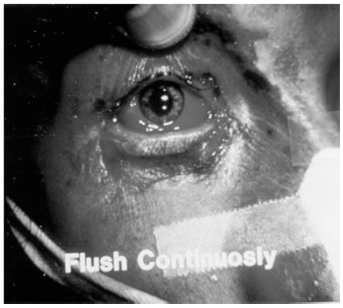
Get the nail back in place, as much as practical



Major nail injuries: A better option

- **Philosophy: Natural is better !**
  - **Dermabond has changed many things in local would care**
- **If the nail matrix is not destroyed**
- **If the nail has maintained most of it's shape, put it back where it belongs**
  - **If it generally fits, glue it into place with Dermabond**

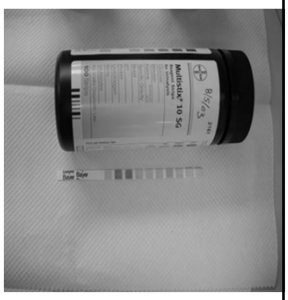
Acid/alkali into the eye? → Flush until pH is near normal



But how to know when the pH is physiologic?

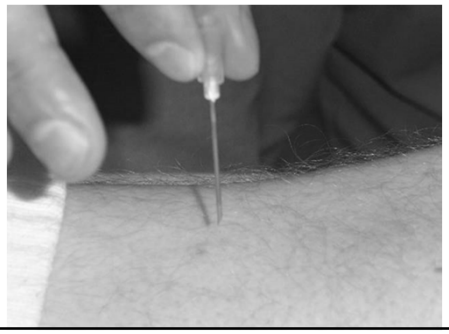
No litmus paper? Urine dipstick trick

- **Pull the pH pad off of the urine dipstick, apply to the conjunctiva and compare to the usual pH color readings**
- ***Careful cutting the dipstick and placing in the eye (sharp corners)***



Once upon a time we tested pin prick sensation with these

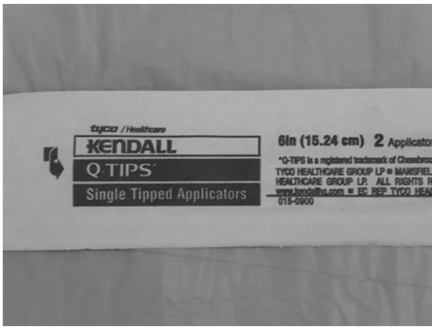
Then we tested with these



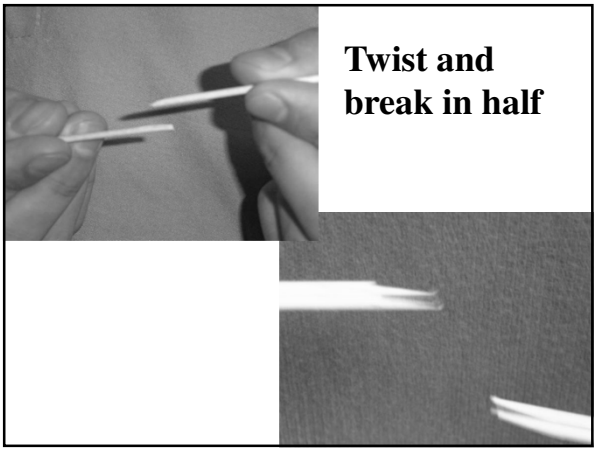
A good point !

- **Problem:** Testing pin prick sensation without transmitting disease or leaving bleeding lesions
  - Never use the pin in reflex hammers
- **Trick:** Cotton applicators shafts (broken)
  - Not just for fine touch sensation
  - Break the shaft in half and use the broken end
    - USUALLY has a sharp point to it

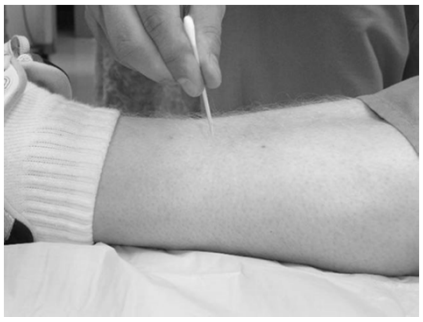
Every clinic has these



Twist and break in half



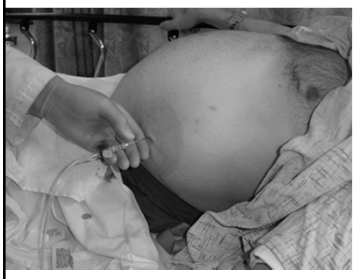
Safer, cleaner, better pin prick sensation exam tool



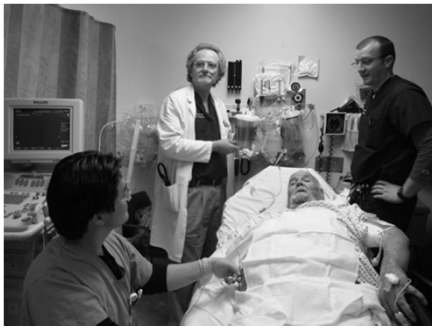
Large volume paracentesis

- Problem: Not easy to collect all the fluid
  - Drainage bags: 3 way valves/stopcocks and syringes are slow and cramp your hand
  - Vacuum bottles: often not available, slow to get, can mysteriously lose suction
- Trick: Use wall suction instead
  - At every bedside
  - Unlimited volumes
  - Easy, fast
  - Contamination concerns unfounded

Can take off 5-10+ liters these days.
Most physicians use sterile vacuum bottles

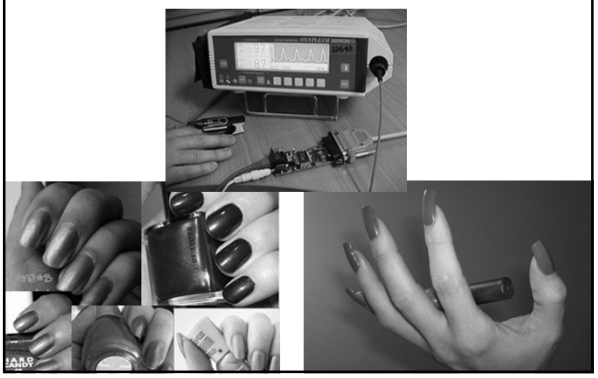


As long as the fluid goes in one direction, there should be no infection, contamination problems



Can connect several containers in series, or just swap them out

Pulse Ox & nail polish ??



Another myth… or fact ??

Does nail polish affect pulse oximeter readings?

Effect of nail polish on O_2 saturation determined by pulse oximetry

Hinkelbein. Resuscitation. 2007;72:82

Commonly believed that nail polish causes erroneous PO readings

- **Prospective evaluation of nine polish colors in 50 adult white ICU pts**
  - **Spectrum of colors, one finger as a control**
  - **2 pulse oximeters, results compared to ABGs**

Results: Nail polish had almost no effect !

- **<1% difference for most all colors**
  - **Only dark colors (eg. dk blue, purple) were >1%**
  - **Black polish only caused a 1.6% lower reading**

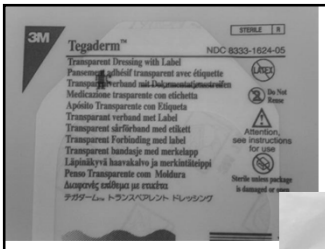
Another myth… or fact ??

Does nail polish affect pulse oximeter readings?

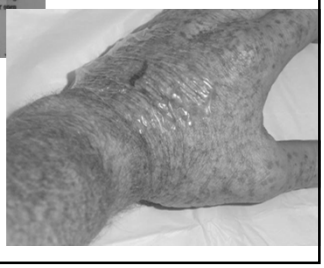
Work related exposure to infections

Contagious infection concerns

- **Problem: Minor breaks in the skin surface which be a portal of entry for infection**
- **Solutions: Use barrier protection**
  - **OpSite is in common use, but not ideal with frequent hand washing and changing of gloves**



One approach: The barrier technique

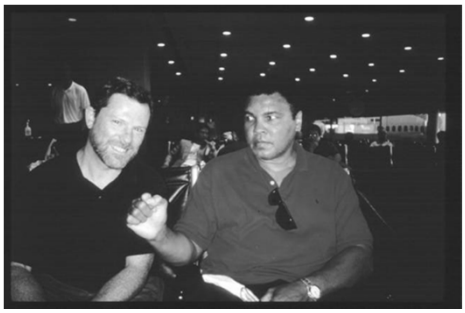


Another approach to skin infection exposure concerns

Trick: Liquid BandAid works better

(Thanks to Dr. Mark Borden for this one)

Well…..I hope some of these "tricks" *knocked you out*



Thank you

The end

Educational Objectives

At the conclusion of this presentation, each participant should be able to:

- **Understand the importance of clinical "tricks" and unique techniques in providing pt care.**
- **Describe unique techniques to use to treat:**
  - **Epistaxis**
  - **Upper respiratory bleeding**
  - **Peritonsillar abscesses**
- **Describe special techniques to examine:**
  - **The pharynx**
  - **The rectum**
  - **Sensory pin-prick neurologic exam**

Lect-to do

- **Get images of:**
  - **the EM journal, "tricks" column, especially with my name in it**
  - **anoscope and lido jelly photos?**
  - **Needs some more example images, in general**