Laceration repair in the time of covid

Contributors: Lin, Weinstock

Objective: Review alterations in wound care practice that may be helpful in the time of the COVID pandemic (and beyond) to reduce patient/provider exposure risk

CME question: Reducing points of contact with the healthcare system is a key way to reduce exposure risk to you and your patient. One alteration in practice to obviate the need for a return visit is to consider:

A. Closing a pediatric facial laceration with fast-absorbing plain gut sutures

B. Closing an adult high-tension extremity wound with fast absorbing plain gut sutures

C. Leaving a highly cosmetic facial wound of an adolescent girl open, despite objections from the patient and her parent

D. Closing a scalp laceration with hair apposition, which involves the appplication of a tissue adhesive tape, such as steri-strips

Answer: A

TAGS: laceration repair, absorbable sutures

Summary: Brian and Mike discuss alterations to our usual practice patterns in the urgent care in the setting of the COVID pandemic, which include increasing patient throughout through faster closure techniques, reducing total points of contact with the healthcare system by using techniques to obviate the need for a return visit, and habit changes during closure to minimize exposure risk during face-to-face contact.

References:

Closing pediatric lacs w absorbable sutures:

https://www.ncbi.nlm.nih.gov/pubmed/?term=18347489

Closing adult lacs with absorbable sutures:

https://www.ncbi.nlm.nih.gov/pubmed/?term=15258862

Hair apposition:

https://www.ncbi.nlm.nih.gov/pubmed/12085068

And, you can reference my blog post that inspired this recording if you like:

https://lacerationrepair.com/lac-repair-in-the-time-of-covid/

Lac Repair in the time of COVID--Script for discussion w Mike Weinstock

Mike: Intro/check-in

I know we are all anxious, inundated with updates, and feeling way in over our heads with the amount of new information we need to rapidly digest to effectively prepare at our institutions for the COVID-19 pandemic response. Firstly, from one “front line” provider to another, thank you for your courage and all you do.

If you are an urgent care provider, a physician assistant who primarily works in an ED fast track, or even a family practitioner doing mostly telemedicine–even if you are not directly involved in COVID care–you still have a role to play, and I am thankful for you too. This post, in fact, is for you.

I’ve been thinking a lot about how we provide care to the patient with soft tissue injury and acute wounds as our emergency departments begin to fill up with “patients under investigation.” As I see it, the name of the game here to allow us to care for these patients while simultaneously supporting the COVID response is (1) rapid throughput of patients who can be rapidly discharged; (2) reducing total points of contact with the health care system; and (3) resource stewardship of precious supplies of PPE.

As we prepare for the patient surges anticipated with COVID-19, some basic modifications in wound care practice can play a role in helping "flatten the curve."

Rapid Throughput

If you are of the mentality that non-emergent patients should take a number, and sit in the waiting room for an indefinite amount of time to be seen, dispel that mode of thinking. Given what is currently known about the incubation period of COVID-19, the rate of asymptomatic carrier transmission, and fomite stability of the virus, we need to get patients who can be rapidly evaluated, triaged, and dispositioned out of our care spaces as efficiently as possible without sacrificing safe, quality care.
To that end, here are some ideas that may help you.

Skip the repair

Remember, not every laceration needs to be sutured. For the most part, suturing a wound remains mostly a cosmesis issue. If the patient does not require closure for hemostasis, doesn’t have a ruptured tendon you need to repair, and is fine with a slightly larger scar, consider counseling them about the merits of leaving that wound open. Contrary to some commonly held cultural beliefs that closure prevents infection, wound closure generally involves placement of an embedded foreign body that actually increases infection risk.

If you are providing telemedicine care, you may be able to provide this counseling without a face-to-face visit, provided your patient can tolerate tap water irrigation and apply local wound care at home. If they are too intimidated to irrigate, For selected wounds of the face and scalp

you could remind them that irrigation may not even be necessary--people often forget about a classic study by SInger from 1998 where . Remember that small hand lacerations have equivalent cosmetic and functional outcomes whether or not they are primarily closed, and this likely generalizes to a number of wounds, especially now when time is of the essence.

Quicker Closure
If you decide that a wound does need primary closure, consider some options that speed things up:

Glue and tape are often overlooked as great solutions for low and moderate tension wounds. Remember that a high-tension wound can be easily transformed in to a low tension wound with a layer of deep dermal sutures.

For longer lacerations you plan to suture, running percutaneous sutures or even running horizontal mattress sutures will get that wound closed much faster than simple interrupted sutures.

No Returns

Tissue adhesive glue and tape for closure have the added benefit of obviating the need for a return visit, and thus save your patient an additional health care system interface, at a time when that interface could mean infectious exposure risk.

Absorbable sutures used for epidermal closure may also have a role here. Pediatric facial lacerations can be closed well with fast absorbing plain gut sutures and selected adult wounds can be closed with vicryl rapide. In both situations, the intention is for the patient to manage the wound at home since the sutures dissolve and thus don't require the need for a return visit (in practice, you might advise the patient to remove the suture strands with a pair of tweezers once the knot breaks).

For the selected patient who can understand the technique for suture removal, you may even consider discharge with a little gift bag of a suture removal kit and a timeline of when to take the sutures out.

PPE Preservation

In normal times, I err on the side of being fairly rigorous with PPE. I use a surgical mask with face shield and sterile gloves (or nitrile for uncomplicated upper extremity lacerations), and sometimes even an impenetrable gown if it looks like the repair is going to be bloody or messy.

But in the weeks ahead, we anticipate shortages of personal protective equipment which will be vital to help us mount a confident response to COVID patient surges.

In light of this, I advocate for skipping the surgical mask entirely during uncomplicated wound repair. Remember, for wound closure the mask is meant to protect the patient from you, not the other way around. Theoretically, your exhalation and saliva while talking during the repair could contaminate the wound but any appreciable increase in infection rates have never borne out in studies. Still, if this unnerves you, just keep your mouth shut.

Eye protection is important, but doesn't require wasting any one-time usage PPE. Get yourself a pair of construction goggles with side-eye protection. These can be re-used and wiped down

between patients with soap and water. And the protective gown is a no-brainer; skip it entirely as long as you yourself have no open wounds exposed that could result in blood-borne pathogen exposure.

When I Was younger I did a lot of volunteering at outdoor music festivals, and we would often have to sew up lacs in “fence jumpers” in an outdoor tent. A pair of protective eyewear and gloves is all you really need for PPE. Speaking of, although I havent been to an outdoor music festival in years since my kids were born, now that we cant I have this weird desire to attend one.

Thanks for reading, and I hope the ideas generated will help you in your personal or departmental workflows as we prepare for the expected patient surges during the pandemic.

Speaking personally as an Emergency Physician, it’s never been harder for me to climb the hill from the parking lot to the entrance of my ED to work my next shift. But at the same time, my work has never felt so important. So I keep putting one foot in front of the other to walk up that hill, and I hope you will too.

Stay safe.

Michael Weinstock
Wed 4/1/2020 9:14 AM

- Brian Lin <bwlin720@gmail.com>

I love the idea. I can record Friday or Monday or Tuesday afternoon. Or I can do anytime Sat or Sun.
Please LMK what works best for you!!
Stay safe out there, my friend!
M

BL

Brian Lin
Tue 3/31/2020 10:35 PM

Reply

- Michael Weinstock

Hi Mike,

I hope you are hanging in there. Not sure what clinical life has been like for you during the pandemic, for me so far in San Francisco it's a waiting game with lots of preparation for the worst.

In that vein, I felt inspired to write this blog post last week:

https://lacerationrepair.com/lac-repair-in-the-time-of-covid/

Wondering if you would be interested in recording this with me as a topic for UCRAP. I'm sure there are a lot of urgent care practitioners out there wondering what their role is in all of this...was thinking they may find it useful.

Let me know your thoughts—I have some time this week and next as it was supposed to have been my kids "spring break" ...but now we are all grounded at home.

Stay safe.

Sincerely,

Brian Lin

Sent from my iPhone