Detroit SonoWAR 2024

#10 Wildfire Incineration Station

On the morning of June 11, 1805, you are suddenly awoken by the smell of smoke blowing through your Detroit home's window. You immediately gather your belongings and head outside only to find a nearby barn set ablaze. A bystander is watching in awe, with ashes from his pipe falling onto the ground. As you watch flames from the barn spread to nearby wooden structures, you are worried about the other 600 residents in the city and take immediate action as there was no professional fire department in the area at this time. You organize fellow civilians to form a 'bucket brigade', a line of people transporting buckets of water from the Detroit River to burning portions of the city.



The official Flag of the City of Detroit commemorates the great fire of 1805 which destroyed the city. Two women stand in the foreground while on the left, the city burns in the background and a woman weeps over the destruction. The woman on the right consoles her by gesturing to a new city that will rise in its place. Two Latin mottos read "Speramus Meliora" ("We hope for better things) and "Resurget Cineribus" ("It will rise from the ashes")⁷.



Wildfire Incineration Station Teaching Point Guide (for Residents)

- Kameda, T et al. Point-of-care ultrasound detection of tracheal wall thickening caused by smoke inhalation. Crit Ultrasound J. 2014 Jul 9;6(1):11. doi: 10.1186/2036-7902-6-11. PMID: 25097745; PMCID: PMC4105106.
- Zheng, L et al. Escharotomy. StatPearls, August 2023. https://www.ncbi.nlm.nih.gov/books/NBK482120/, accessed 2024.
- 3. NYSORA, Erector Spinae Plane Nerve Block. NYSORA website, https://www.nysora.com/erector-spinae-plane-block/, accessed 2024
- 4. Peck, M. Escharotomy Indications. Arizona Burn Center. Escharotomy Procedures for Burn Patients. May 26, 2015.
- 5. Guidelines for burn transfer referral American Burn Association https://ameriburn.org/resources/burnreferral/
- 6. US Forest Service. Wildfire Management. Huron-Manistee National Forests website, accessed 2024
- 7. Great Detroit Fire of 1805 https://detroithistorical.org/learn/encyclopedia-ofdetroit/great-fire-1805







DETROIT SONOWAR 2024

#10 Wildfire Incineration Station

| 1 point | Navigate to this station and complete it in 10 minutes |
|---------|--|
| 1 point | What is the first and most critical initial step in responding to wilderness emergencies and mass casualties? |
| 1 point | A victim is found in the middle of a nearby smoldering building. What should be done before assessing this patient's medical status? |
| 1 point | Once this is done, you notice that the victim is in respiratory distress. You recall that smoke inhalation is the leading cause of death in fires and can result in rapid airway swelling. |
| | Pick a teammate to be your burn victim. Demonstrate how to assess for tracheal wall thickening using POCUS |
| 1 point | The patient is clearly having difficulty in breathing secondary to their circumferential trunk burns. Describe how to perform a truncal escharotomy. |
| 1 point | Identify key landmarks on your victim for an ultrasound-guided Erector Spinae block to facilitate your escharotomy |
| 1 point | Demonstrate how to perform an ultrasound-guided Erector Spinae block on the phantom, including choice of medication and dose |
| 1 point | Perform an escharotomy on your teammate using your "scalpel" (skin marker) identifying where you would make your incisions for a truncal escharotomy |
| 1 point | What are at least 3 criteria that warrant immediate consultation and consideration for transfer to a tertiary burn center? |
| 1 point | Who is the only one that can prevent forest fires? |