

Instructions to Case Learners

Accessing Cases through ViaLearning in CREDO and to learn from their content.

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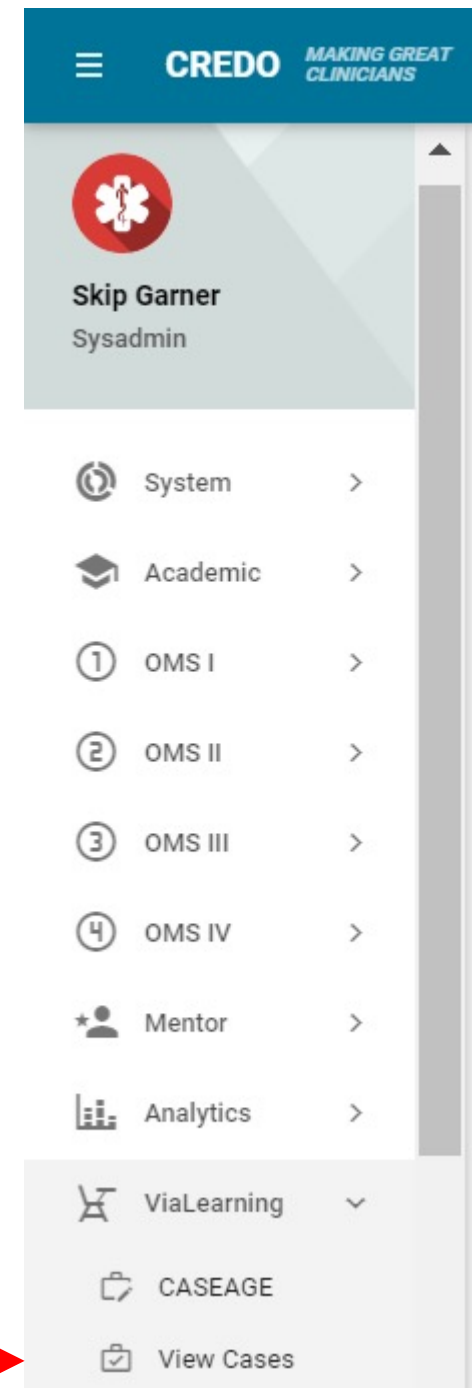
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Accessing the Available Cases I

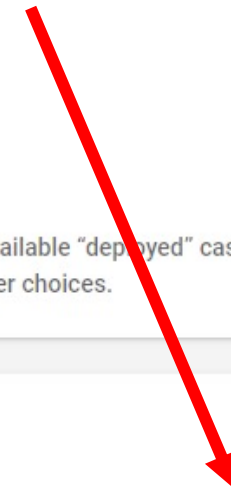
- Completed, verified cases are made available by clicking on the View Cases menu item under ViaLearning menu in CREDO.
- Newly deployed cases may become available at any time.

Click here for a list of available Cases



Accessing the Available Cases II

- List of “deployed” cases available to you, click on one to work on it
- If you have worked on the case (as indicated by the number of questions answered)



VIALEARNING CASES

High quality, high information content board-level cases are continuously being created by our faculty that span the wide variety of areas needed for board review. Below is a list of available “deployed” cases which you can access to explore the various components of a case. Each case has associated board-level questions. The system tracks your performance on these questions, and provides rationale on answer choices.

Search: _____

Name	Body System	Related Course	N° Questions	Correctly Answered
Assessment and Management of Thermal Burns	Emergency Medicine	[8500] Emergency Medicine	11	100%
Lymphoma	Oncologic	[7025] Genetics	2	0%
Peds Sim Case #1	Gastrointestinal	[7315] Clinical Medicine: Hematology and Oncology	28	0%
Peds Sim Case #2	Pediatric	[7315] Clinical Medicine: Hematology and Oncology	15	0%

Start a case....

Review case definition



Assessment and Management of Thermal Burns

Body System: Emergency Medicine

Related Course: [8500] Emergency Medicine

ICD Code(s): [T31] Burns classified according to extent of body surface involved; [T20] Burn and corrosion of head, face, and neck

Chief Complaint: A 27 year old male presents to the Emergency Department with thermal burns, difficulty speaking, and subjective pain.



Then select LEARNING OBJECTIVES tab and review the objectives



[LEARNING OBJECTIVES](#) ⓘ

[LEARNING MATERIALS](#) ⓘ

[PRESENTATION + DATA](#) ⓘ

[CONCLUSION + PLAN](#) ⓘ


🗄️ EPIDEMIOLOGY

- § Identify the most common causes of thermal injuries
- § Identify the common demographics for thermal injuries

🔄 PATHOLOGY ⓘ

- § Define first, second, and third-degree burns based on burn zone and depth

The questions throughout the case are important

 1. What is the most concerning feature of this patient's presentation?

- Presentation of cases is dynamic.
- Answering questions correctly is required to reveal more parts of the case
 - To reveal more of the case, you can answer questions multiple times until correct
- Questions/Answers are recorded
 - First time correct answers are tabulated
 - Tabulated score can be used by administration to grade your performance
 - You can use the score to assess your own performance
- Learning from Questions/Answers
 - Rationale is provided for correct and incorrect answers

Continue the case....

LEARNING OBJECTIVES ⓘ

LEARNING MATERIALS ⓘ

PRESENTATION + DATA ⓘ

CONCLUSION + PLAN ⓘ

CLINICAL KNOWLEDGE + REASONING

§ Werner SL. Thermal and Chemical Burns. In: Cydulka RK, Fitch MT, Joing SA, Wang VJ, Cline DM, Ma O. eds. *Tintinalli's Emergency Medicine Manual*, 8e New York, NY: McGraw-Hill;

<http://accessemergencymedicine.mhmedical.com/content.aspx?bookid=2158§ionid=162273029>

§ Adult Burn Care Protocol by Iowa Methodist Medical Center.

The screenshot shows a clinical protocol document with several sections:

- Initial Assessment and Resuscitation:** Includes bullet points for fluid resuscitation, airway management, and oxygenation.
- Wound Care:** Includes instructions for cleaning, debriding, and dressing wounds.
- Fluid Resuscitation:** Includes a table for fluid resuscitation and a section on electrolyte management.
- Management of Specific Burn Types:** Includes sections for Thermal Burns, Chemical Burns, and Electrical Burns.
- Criteria for Transfer to a Specialized Burn Center:** Lists criteria for transferring patients to a specialized burn center.

 Adult Burn Care Protocol

WEB LINK

§ Burn Wound Assessment - Classification Table, Courtesy of Dr. Gerald Diaz, MD

<https://www.grepmed.com/images/1205/classification-superficial-epidermal-diagnosis-clinical-table-burn>

Depth	Appearance	Depth	Depth	Depth
Epidermal		Superficial	Superficial	Superficial

Click on the next tab to proceed

Click on links for more information

Click on images to expand

Click on files to open and review

Continue the case....

LEARNING OBJECTIVES ⓘ

LEARNING MATERIALS ⓘ

PRESENTATION + DATA ⓘ

CONCLUSION + PLAN ⓘ

📄 CASE PRESENTATION

A 27-year-old male patient was brought to the emergency department after being involved in an accelerant induced flash fire one hour ago. The patient had been engaging in Fourth of July festivities with friends and family when he decided to add gasoline to a backyard bonfire. The result was a flash fire that burned the patient. His family dumped a nearby bucket of ice water on him initially and due to his pain and severity of his injuries the decision was made to call for emergency services. He was awake and alert with no loss of consciousness at the scene, but sustained significant thermal injuries per EMS report. The EMS team noted that the patient was not wearing a shirt or any jewelry at the time. He was treated with standard precautions, and a sterile dressing was applied to the burn areas, and he was transported via ground to the emergency department.⁶ He was not intubated pre-hospital but there may be a concern for inhalation injury with facial burns. The initial evaluation from EMS revealed a young male with bilateral breath sounds, mildly tachycardic in the 100s, moderately hypertensive in the 160s/90s, with apparent burns to the face, neck, anterior torso, bilateral arms. The patient is currently conscious, in considerable pain, and having difficulty speaking. History is obtained from the patient's brother.



✓ 1. What is the most concerning feature of this patient's presentation?

🕒 HISTORY

Click on the next tab to proceed

Scroll down to review more parts of the case and questions

When you have reached the bottom o the last tab, you are done....

LEARNING OBJECTIVES ⓘ

LEARNING MATERIALS ⓘ

PRESENTATION + DATA ⓘ

CONCLUSION + PLAN ⓘ

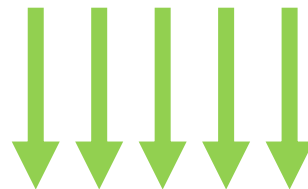


CLINICAL ASSESSMENT

For the typical burn patient, diagnostic labs and imaging of choice are dictated by the findings of the primary and secondary surveys. In our patient's case, diagnostic labs indicated include complete blood count, blood type and crossmatch, continuous pulse oximetry and cardiac monitoring. These labs are paramount to assess any acute changes to cardiopulmonary status. Due to the patient's difficulty speaking and acute changes in his baseline heart rate, it is important to hook the patient up to a 12-lead EKG, pulse oximeter, and obtain IV-access and a two-view chest radiograph as soon as possible.⁷ These choices help guide rapid response, should the patient begin to code. Further diagnostic monitoring of the burn patient includes renal function testing. This is particularly useful in anticipation of major fluid shifts secondary to metabolic and electrolyte changes routinely seen in burn injuries. To monitor for possible osmotic diuresis, our patient will be assessed using urinalysis; evidence of glycosuria would falsely indicate adequate perfusion due to osmotic diuresis⁸. Arterial blood gas readings are imperative in a burn patient for possible respiratory compromise requiring immediate intervention.⁹

Diagnostic Labs and imaging utilized:

Pulse oximetry



As one can see the management of thermal burn is truly multifactorial and dimensional. While complex we hope this advanced teaching case helps to give a teachable narrative to the young future physician regarding the basic workup of a patient with severe thermal burns.

- ✓ 10. A 27-year-old Caucasian male presents to the emergency department with burns. The patient states that he was welding without protective equipment when his clothing caught fire. On exam, the patient has a temperature of 99.5 degrees F, blood pressure 154/90, heart rate 100 bpm, oxygen saturation 95%, and a respiratory rate of 20 breaths/min. On physical exam, the patient has burns covering the anterior and posterior of his torso, abdomen, and both arms. What is the estimated total burn surface area for this patient?

Thank you

Any questions, comments or suggestions, please contact:

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