INTM 4057: HYPERBARIC MEDICINE & CHRONIC WOUND CARE  2021-2022

Faculty In Charge Of Course:  
Joseph G. Nevarez, M.D.

Participating Faculty:  
Division Faculty

Location:  
Memorial Hermann Center for Hyperbaric Medicine And Wound Healing

Offered:  
Blocks 1-8, 10,11 and 13

Max. # Students/Period:  
1

Course Objective

Material Covered:

• Pathophysiology and Hyperbaric Oxygen Treatment (HBOT) of decompression sickness, air embolism, carbon monoxide poisoning, late effects of radiation, necrotizing infections/osteomyelitis and Enhanced Wound Healing
• Pathophysiology and treatment of chronic wounds including those related to pressure, infection, ischemia, lymphedema & Venous stasis

Skills Acquired:

• Able to identify clinical uses of HBOT.
• Familiarity with hyperbaric oxygen chamber environment
• Understand importance of oxygen transport
• Familiarity with non-invasive vascular testing; Ankle Brachial Index, Transcutaneous Oximetry
• Develop systematic approach to wound assessment, description and staging
• Develop systematic approach to clinical investigation of wounds
• Familiarity with wound dressings
• Understand importance and types of debridement for wound healing
• Able to identify etiology of chronic edema
• Understand use of compression bandaging on lower extremity

Activities Of Elective

Number Of New Patients/Student/Week:  
3

Responsibilities Of Student For Assigned Patients:

<table>
<thead>
<tr>
<th>Does history/physical:</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who critiques:</td>
<td>Attending Physician</td>
</tr>
<tr>
<td>Follows patients, with appropriate notes as needed:</td>
<td>Possible</td>
</tr>
<tr>
<td>Who supervises:</td>
<td>Attending Physician</td>
</tr>
<tr>
<td>Does student see ambulatory patients:</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Procedures</th>
<th>Observe</th>
<th>Perform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of patients with wounds</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Transcutaneous oximetry</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Wound debridement</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Assist patients inside hyperbaric chamber</td>
<td>X</td>
<td>X*</td>
</tr>
<tr>
<td>Evaluation of Hyperbaric candidates</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Attend to critically ill patients in hyperbaric chamber</td>
<td>X</td>
<td></td>
</tr>
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Scheduled Duties Of Student:

Frequency of rounds on patients:  
As dictated by consultations done

Presents patients to preceptor or attending physician:  
yes

Weekly schedule of required teaching sessions:  
2 per week scheduled around clinical duties

Describe Optional Rounds And Activities, If Any:

Other Required Activities:

Reading/Review of Current Literature:  
Reading and review of current literature

PowerPoint Project:  
Develop ~20 minute PowerPoint on Hyperbaric or Wound related topic

Other:  
Participate in ongoing research activities if desired

How Is Student Evaluated:

Clinical skills, intellectual curiosity, effort and willingness to participate. Assessed in written format per University standard.

Who Evaluates Students:

Faculty in charge of course, with input from all participating faculty.

Unique Features Of This Elective:

Exposure to altered environmental conditions which affords application of physiologic principles.