Good Medicine in Bad Places: Have POC Testing, Will Travel

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Disclosure

Sean G. Smith: has no relevant financial relationships with commercial interests to disclose.

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Learning Objectives:

After this presentation, you will be able to:

Describe the limitations of disaster/trauma care in Haiti, lack of lab testing, and how point of care helps.
Remote Medical Missions

Bainet....500 patients in 3 days....
## Blood Gasses (or lack thereof)

<table>
<thead>
<tr>
<th>Primary Disorder</th>
<th>SOME Possible Causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory Acidosis (↓ pH w/ ↑ CO2)</td>
<td>HYPO-ventilation</td>
</tr>
<tr>
<td>Respiratory Alkalosis (↑ pH w/ ↓ CO2)</td>
<td>HYPER-ventilation</td>
</tr>
<tr>
<td>Metabolic Acidosis (↓ pH w/ ↓ HCO3-)</td>
<td>HCO3 loss (diarrhea)</td>
</tr>
<tr>
<td></td>
<td>HCO3 consumption (CUTE DIMPLES)</td>
</tr>
<tr>
<td>Metabolic Alkalosis (↑ pH w/ ↑ HCO3-)</td>
<td>H+ loss (vomiting)</td>
</tr>
<tr>
<td></td>
<td>HCO3 increase (compensation-e.g.: COPD)</td>
</tr>
</tbody>
</table>

NB: Proactive vs. Reactive….if you see the cause, then, even without a blood gas, you may have an index of suspicion that your patient is experiencing a particular derangement and assist their clinical course towards homeostasis.

Gangbangers Vs. Pediatric Surgery Patient.
Iatrogenic Anemia:

Septic Neonate bloodwork:

Minimum blood volume for the lab to be able to run a CBC, bilirubin and electrolytes is 2mls.
Small Sample Size

Sunday 3 codes in less than three hours…. Including a neonate with a UVC and a pediatric with an IO…. 
Self Assessment Question:

1. Point of care testing helps in resource limited environments in that it:

   a) Increases access to healthcare
   b) Decreases turn around times
   c) Decreases minimum blood volumes
   d) Is rapidly deployable
   e) Is often comparatively robust
Questions, Comments, Concerns?????

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Thank You…. Thank You Very Much….!

Go MAKE a Difference!

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