Ken Milne COI:

- Grants/Research Support: None
- Speaker Bureau/Honorarium: None
- Consulting Fees: None
- Patents: PedEBoard
- Other: Senior Editor AEM and CorePendium, Faculty CCME and EMRAP, and Medical Expert Witness
SGEM#280: This Old Heart of Mine and Troponin Testing
Dr. James VandenBerg:
James has a master’s degree in clinical investigation from Washington University and is currently the Chief Resident at Detroit Receiving Hospital.
Dr. Andrew Huang:
Andy went to Kansas City University for medical school and is now PGY3 at DMC Sinai Grace Hospital.
Case:

- 78yo man with multiple complaints
- Why here?
- Geriatrogram
- Could it be ACS?
Grey Tsunami
Question: What is the frequency of ACS in elderly patients presenting to the ED with nonspecific complaints and what is the utility of troponin testing in this population?
Troponin Testing and Coronary Syndrome in Geriatric Patients With Nonspecific Complaints: Are We Overtesting?

Alfred Z. Wang, MD, Jason T. Schaffer, MD, Daniel B. Holt, MD, Keaton L. Morgan, MD, and Benton R. Hunter, MD
> 64 yo Non-Specific Complaints

Troponin Testing

None

Five Outcomes of Interest
Dr. Alfred Wang

An emergency medicine physician at Indiana University in Indianapolis, IN.

Conclusions:
Table 2. Description of methods criteria.*

<table>
<thead>
<tr>
<th>Method Criterion</th>
<th>Method Criterion Description</th>
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</thead>
<tbody>
<tr>
<td>1. Abstractors training</td>
<td>Were the abstractors trained before the data collection?</td>
</tr>
<tr>
<td>2. Case selection criteria</td>
<td>Were the inclusion and exclusion criteria for case selection defined?</td>
</tr>
<tr>
<td>3. Variable definition</td>
<td>Were the variables defined?</td>
</tr>
<tr>
<td>4. Abstraction forms</td>
<td>Did the abstractors use data abstraction forms?</td>
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<tr>
<td>5. Performance monitored</td>
<td>Was the abstractors’ performance monitored?</td>
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<tr>
<td>6. Blind to hypothesis</td>
<td>Were the abstractors aware of the hypothesis/study objectives?</td>
</tr>
<tr>
<td>7. IRR mentioned</td>
<td>Was the interobserver reliability discussed?</td>
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<tr>
<td>8. IRR tested</td>
<td>Was the interobserver reliability tested or measured?</td>
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<tr>
<td>9. Medical record identified</td>
<td>Was the medical record database identified or described?</td>
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<tr>
<td>10. Sampling method</td>
<td>Was the method of sampling described?</td>
</tr>
<tr>
<td>11. Missing-data management plan</td>
<td>Was the statistical management of missing data described?</td>
</tr>
<tr>
<td>12. Institutional review board approval</td>
<td>Was the study approved by the institutional or ethics review board?</td>
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</table>

*IRR, Interrater reliability.  
*Method criteria 1 to 8 from Gilbert et al.³
• 69% (412/594) got a troponin
• 13% (52/412) were elevated
• 1% (5/412) Dx with ACS
• NPV 100% and PPV 6%
• Most were false positives (ex dehydration, HF and AF)
Talk Nerdy:
1. Non-Specific
2. Chief Complaint
3. Retro Charting
4. Define ACS
5. Single Troponin
Talk Nerdy II:
6. Trop Assay
7. Trop Rise&Fall
8. Selection Bias
9. PPV
10. Deaths
In this retrospective study of elderly patients presenting to the ED with nonspecific complaints, the diagnosis of ACS was rare, and troponin testing had limited value.
Keener Contest:
What is the meaning of the word Michigan?
Remember to be skeptical of anything you learn, even if you heard it on the Skeptics’ Guide to Emergency Medicine.