Fear of Malpractice and Defensive Medicine in the Emergency Department

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The Emergency Department

- Emergency departments in US are stretched near capacity
- ACEP Data – decreasing number of EDs
  - 1997 the total number of EDs was 4,945
  - 2004 the total was 4,017 – decrease of 19%
- ED visits
  - 90.3 million ED visits in 1993
  - 113.9 million in 2003
  - 136 million in 2009 – increase of 50.6% in 16 years!!

2006 IOM Report; ACEP website; CDC report

The Emergency Department

- Challenging environment
- Incomplete information
- Continual flow of patients
- Pressure to see more patients efficiently
- Many interruptions
- Critical cares / traumas
- Safety net for US health care

Malpractice Risk in the ED

Malpractice Risk in the Emergency Department

- 11,529 closed claims reviewed from ED 1985-2007
- Insurer group – 60% physicians
- 19% of claims – Emergency Medicine physician as primary defendant
- Most common claims
  - Error in diagnosis – 37% (4,233)
  - No error identified – 18% (2,091)
  - Improperly performed procedure – 17% (1,935)

Brown et al. 2010

ED-Based Malpractice Claims

http://www.funnygreetings.net/html/Medical-Malpractice.html
Causes of ED Claims

- Most common pathology:
  - 6% – fracture (vertebra, ulnar/radius, tib/fib)
  - 5% – AMI
  - 2% – appendicitis

- Outcome:
  - 64% of cases dropped or dismissed
  - 29% closed with settlement
  - 6% verdict for defendant
  - 1% verdict for plaintiff

ED Malpractice Claims

<table>
<thead>
<tr>
<th>Error in Diagnosis</th>
<th>Closed Claims</th>
<th>% of Total</th>
<th>Paid Claims</th>
<th>% Paid</th>
<th>Total Indemnity</th>
<th>Average Indemnity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fracture in the vertebral column</td>
<td>4,323</td>
<td>31</td>
<td>1,642</td>
<td>36</td>
<td>$697,690,000</td>
<td>$271,646</td>
</tr>
<tr>
<td>Fracture in the ulnar/radius</td>
<td>4,091</td>
<td>30</td>
<td>804</td>
<td>19</td>
<td>$415,810,000</td>
<td>$221,059</td>
</tr>
<tr>
<td>Fracture in the tib/fib</td>
<td>3,053</td>
<td>23</td>
<td>813</td>
<td>32</td>
<td>$336,570,000</td>
<td>$107,709</td>
</tr>
<tr>
<td>Failure to supervise or monitor a case</td>
<td>705</td>
<td>5</td>
<td>7</td>
<td>1</td>
<td>$67,861,000</td>
<td>$9,766,000</td>
</tr>
<tr>
<td>Failure to perform</td>
<td>405</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>$26,260,000</td>
<td>$6,560,000</td>
</tr>
<tr>
<td>Failure to perform</td>
<td>405</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>$26,260,000</td>
<td>$6,560,000</td>
</tr>
<tr>
<td>Delay in performance</td>
<td>301</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>$26,292,000</td>
<td>$8,764,000</td>
</tr>
<tr>
<td>Medication errors</td>
<td>273</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>$22,065,000</td>
<td>$11,030,000</td>
</tr>
<tr>
<td>Failure to delay in referral or consultation</td>
<td>273</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>$22,065,000</td>
<td>$11,030,000</td>
</tr>
<tr>
<td>Failure to delay in admission to hospital</td>
<td>269</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>$25,543,000</td>
<td>$9,317,000</td>
</tr>
<tr>
<td>Failure to recognize</td>
<td>205</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>$13,891,000</td>
<td>$6,945,500</td>
</tr>
<tr>
<td>Error in admission to hospital</td>
<td>707</td>
<td>6</td>
<td>7</td>
<td>0</td>
<td>$330,462,000</td>
<td>$47,203,000</td>
</tr>
<tr>
<td>Error in diagnosis</td>
<td>11,529</td>
<td>94</td>
<td>521</td>
<td>36</td>
<td>$964,163,000</td>
<td>$186,620,000</td>
</tr>
</tbody>
</table>

Outcome:
- 64% of cases dropped or dismissed
- 29% closed with settlement
- 6% verdict for defendant
- 1% verdict for plaintiff

Brown et al. 2010

Claim Resolution Numbers

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Closed Claims</th>
<th>% of Total</th>
<th>Paid Claims</th>
<th>% Paid</th>
<th>Total Indemnity</th>
<th>Average Indemnity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error in diagnosis</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>$40,088,000</td>
<td>$36,447</td>
</tr>
<tr>
<td>Error in diagnosis</td>
<td>607</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>$42,480,000</td>
<td>$6,945,000</td>
</tr>
<tr>
<td>Settled with payment to plaintiff</td>
<td>3,276</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>$964,999,000</td>
<td>$33,234,000</td>
</tr>
<tr>
<td>Written, dropped, or dismissed without payment to plaintiff</td>
<td>7,332</td>
<td>64</td>
<td>7</td>
<td>7</td>
<td>$508,000</td>
<td>$71,176</td>
</tr>
<tr>
<td>Total</td>
<td>11,322</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>$1,274,680,000</td>
<td>$186,620,000</td>
</tr>
</tbody>
</table>

*Specific adjudication information not available for ED claims received through alternative means, such as arbitration or mediation.

Summary

- Most claims dropped or dismissed
- Most frequent claim – missed diagnosis
- Acute myocardial infarction – highest paid ratio – 42%
  - Average indemnity $317,281 for chest pain – higher than most
  - Error in diagnosis in majority of claims for AMI

Risk by Specialty

Malpractice Risk by Specialty

- 40,916 physicians covered by a large nationwide insurer
- Reviewed claims made and payment by specialty
- 7.4% of all specialties sued per year; 1.6% paid
- 78% of claims did not result in payment
- Consistent with Brown et al. = 70%

Brown et al. 2010

Jena et al. 2011
Annual Risk of Suit by Specialty
- Neurosurgery – 19.1%
- Cardiothoracic Surgery – 18.9%
- General Surgery – 15.3%
- Family Medicine – 5.2%
- Pediatrics – 3.1%
- Psychiatry – 2.6%
- Emergency Medicine – around 7.5%

Malpractice Risk by Specialty
- 5 lowest-risk specialties – 75% expected to be sued by age 65; 19% to make indemnity payment
- For highest-risk specialties – 99% expect lawsuits by age 65; 71% will make payment

Defensive Medicine Among High-Risk Specialist Physicians in a Volatile Malpractice Environment
- May 2003 survey – 824 PA physicians in high-risk fields:
  - Orthopedic Surgery
  - General Surgery
  - OB/GYN
  - Emergency Medicine
  - Radiology
- 93% of surveyed physicians sometimes or often engage in defensive medicine tactics
Defensive Medicine

• 92% of survey used Assurance Tactics
• 70% EM vs. 59% group “often order” more tests than indicated (P < .05)
• EM least likely to avoid high-risk patients – 13% vs. 32%
• Self identified areas of defensive medicine:
  – w/u for atypical chest pain
  – CT abd for unlikely appendicitis
  – CT head for minor trauma

Does Fear of Malpractice Correlate with Defensive Tactics?

• 33 EM physicians – January 2000 to May 2001
• 1,134 patients with possible ACS
• 6-question survey
• Low (<15), mod (15-20), high (>20) litigation fear by answers
• Separate risk-taking survey – no significant correlation

Survey Questions

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>Results – Low Fear versus High</th>
</tr>
</thead>
<tbody>
<tr>
<td>➔ Fear of litigation appeared to correlate with increased testing and number of admissions for ACS</td>
<td>➔ 51% discharged vs 42.2% discharge OR .56 (CI, .4 to .9)</td>
</tr>
<tr>
<td>➔ Limitation:</td>
<td>➔ Low-risk patient discharge – 80% vs 64% high fear group – OR .34 (CI, .12 to .99)</td>
</tr>
<tr>
<td>– Small study only involving one institution</td>
<td>➔ Test troponin 74.3% vs 80.4% high fear group – OR 1.9 (CI, 1.2 to 2.9)</td>
</tr>
<tr>
<td>– Potential benefit to increased testing not evaluated</td>
<td>➔ Admission to tele – 51% vs 42%; OR 1.7 (CI, 1.2 to 2.4)</td>
</tr>
<tr>
<td>– Malpractice history of providers not evaluated</td>
<td></td>
</tr>
</tbody>
</table>

Summary

• Fear of litigation appeared to correlate with increased testing and number of admissions for ACS

Waxman et al – NEJM October 2014

• Study 1997-2011 – 5% of Medicare patients randomly surveyed in acute care visits
• GA, TX and SC before and after enactment of gross negligence standard in the ED
• Compare – per visit expenditures, MRI/CT ordering and admissions
• Controlled with surrounding states – regression analysis
Comparison of GA, TX & SC – Before and After Malpractice Standard Reform

Results

- Compared to control states, malpractice reform was not associated with decreased CT or MRI utilization
- Admission rates were not affected
- In Georgia, reform was associated with \(3.6\%\) reduction in per visit charges (95% CI (.9 to 6.2); \(P=0.01\))
- TX and SC had no reduction in per visit charges

Effects on Testing, Admissions & Total Charges in the ED

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Texas</th>
<th>Georgia</th>
<th>South Carolina</th>
<th>Policy with Reform Effect - Percentage Point Difference</th>
<th>95% CI</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Charges</td>
<td>12.0 (1.9 0.9)</td>
<td>12.2 (2.1 1.4)</td>
<td><strong>11.4 (1.6 0.2)</strong></td>
<td>95% CI</td>
<td>11.2 (2.0 1.4)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>CT &amp; MRI</td>
<td>3.0 (0.9 1.1)</td>
<td>3.0 (0.9 1.1)</td>
<td>2.8 (0.9 1.1)</td>
<td>95% CI</td>
<td>2.8 (0.9 1.1)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Policy with Reform Effect – Percentage Point Difference</td>
<td>6.0 (1.1 1.6)</td>
<td>6.0 (1.1 1.6)</td>
<td>6.0 (1.1 1.6)</td>
<td>95% CI</td>
<td>6.0 (1.1 1.6)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Hospital Admissions</td>
<td>10.0 (1.0 0.0)</td>
<td>10.0 (1.0 0.0)</td>
<td>10.0 (1.0 0.0)</td>
<td>95% CI</td>
<td>10.0 (1.0 0.0)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Policy with Reform Effect – Percentage Point Difference</td>
<td>0.0 (0.0 0.0)</td>
<td>0.0 (0.0 0.0)</td>
<td>0.0 (0.0 0.0)</td>
<td>95% CI</td>
<td>0.0 (0.0 0.0)</td>
<td>(0.01)</td>
</tr>
</tbody>
</table>

Does This Mean That Defensive Medicine Doesn’t Really Exist?

- States do not believe that they are fully protected. This is true to some degree, but the critique may be applied to any other law. For example, some have advocated for “safe harbor” laws, which would provide specific protections to physicians who adhere to evidence-based guidelines. If physicians do not believe that they are adequately protected by a legal standard of gross negligence, then they also might not believe that they are protected by a statute that provides a safe harbor for evidence-based guidelines. Indeed, a recent study showed that evidence-based guidelines would be applicable to only a minority of malpractice claims.

What?...That’s the Argument?

- ED physician surveys report engaging in defensive medicine
- Fear of malpractice may be linked to defensive practice
- Waxman does not show that legal protections diminished fear in GA, SC or TX or that providers are aware of the protections
- All that is shown is that malpractice reform failed to decrease testing, admissions and costs in GA, SC and TX
- We do not know why (ignorance, persistent fear, habit?)

Why Waxman Fails to Disprove Defensive Medicine

- ED physician surveys report engaging in defensive medicine
- Fear of malpractice may be linked to defensive practice
- Waxman does not show that legal protections diminished fear in GA, SC or TX or that providers are aware of the protections
- All that is shown is that malpractice reform failed to decrease testing, admissions and costs in GA, SC and TX
- We do not know why (ignorance, persistent fear, habit?)
Summary

• ED is a challenging environment
• Risk of malpractice suit is high, but success rates are low
• Fear of malpractice may increase defensive practice
• Waxman does not appear to disprove defensive medicine
• Further research is needed

References


Example of Legal Ignorance

• If a lawyer can show that I breached the standard of care, I can be sued regardless of patient outcome
• True 23/38 – 60.5%
• False 15/38 – 39.5%