Alliance Member Webinar

featuring

Paul L. Epner, MBA, MEd

September 30, 2021
Today’s Guest

Paul L. Epner, MBA, MEd
CEO and Co-founder,
Society to Improve Diagnosis in Medicine
Diagnosis: A Research Challenge
Society to Improve Diagnosis in Medicine

VISION

Creating a world where no patients are harmed by diagnostic error.

MISSION

SIDM catalyzes and leads change to improve diagnosis and eliminate harm, in partnership with patients, their families, the healthcare community and every interested stakeholder.

VALUES

We value patient partnership, universal access to appropriate diagnostic resources, and equity in diagnostic outcomes.
What is a Diagnostic Error?

The failure to:

(a) establish an accurate and timely explanation of the patient’s health problem(s)

or

(b) communicate that explanation to the patient\(^1\)

Improving Diagnosis is Complex

• **Identifying cases** is difficult
  - Lack of problem category in reporting systems
  - Lack of standard operational definitions, sensitive triggers

• **Understanding the problem** is complicated
  - Nearly all diagnoses involve uncertainty and represent an evolving process; best practices on steps and timeliness are often lacking
  - Investigations often do not proceed holistically - cognitive vs systematic, peer review vs RCA

• **Addressing the problem** is hampered by lack of tools
  - Feedback mechanisms don’t exist
  - Validated measures are limited and largely process-oriented
  - EMR functionality does not support the diagnostic process
Diagnostic Failures are Frequent, Harmful and Costly

- One in 20 patients in outpatient settings will experience a diagnostic error each year = **12 million Americans** each year

- Patients experiencing medical errors report misdiagnosis more often than any other error (59%)

- Approximately **100,000** people die prematurely each year from diagnostic failures in U.S. hospitals alone

- Estimates of the costs associated with diagnostic error exceed **$100 billion per year**
SIDM-Funded Research Further Highlighted the Burden


Serious misdiagnosis-related harms in malpractice claims: The “Big Three” – vascular events, infections, and cancers

https://doi.org/10.1515/dx-2019-0019
Received March 6, 2019; accepted April 28, 2019

Abstract

Background: Diagnostic errors cause substantial preventable harm, but national estimates vary widely from 40,000 to 4 million annually. This cross-sectional analysis of a large medical malpractice claims database was the first phase of a three-phase project to estimate the

Association of Insurance Commissioners (NAIC) Severity of Injury Scale.

Results: From 55,377 closed claims, we analyzed 11,592 diagnostic error cases [median age 49, interquartile range (IQR) 36–60; 51.7% female]. These included 7379 with high-severity harms (53.0% death). The Big Three diseases accounted for 74.1% of high-severity cases (vascular events 22.8%, infections 13.5%, and cancers 37.8%). In aggregate, the top five from each category (n = 15 diseases) accounted
Research Conclusions

Most Common
34% of medical errors causing serious harms are diagnostic (Rank #1)

Most Catastrophic
64% of diagnostic errors lead to death or permanent disability (Rank #1)

Most Costly
28% of total payouts for all medical malpractice claims (Rank #1) with a median payout of $766K per high-severity case
**Research Spotlights Cognition**

<table>
<thead>
<tr>
<th>Clinical judgment</th>
<th>In more than 85% of claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure or delay in ordering a diagnostic test</td>
<td></td>
</tr>
<tr>
<td>Failure to establish a differential diagnosis</td>
<td></td>
</tr>
<tr>
<td>Failure to appreciate relevant symptom, signs, or test results</td>
<td></td>
</tr>
<tr>
<td>Failure or delay in obtaining consultation or referral</td>
<td></td>
</tr>
<tr>
<td>Misinterpretation of diagnostic studies (imaging, pathology, etc.)</td>
<td></td>
</tr>
<tr>
<td>Other clinical judgment failure</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communications</th>
<th>In nearly 35% of claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure in provider-provider communication about patient's condition</td>
<td></td>
</tr>
<tr>
<td>Failure in provider-provider communication (failure to read medical record)</td>
<td></td>
</tr>
<tr>
<td>Other patient-provider communication failure</td>
<td></td>
</tr>
<tr>
<td>Failure to communicate follow-up instructions</td>
<td></td>
</tr>
<tr>
<td>Poor rapport with patient</td>
<td></td>
</tr>
<tr>
<td>Other communication failure</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clinical systems</th>
<th>In 22% of claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient did not receive results—no report or wrong report</td>
<td></td>
</tr>
<tr>
<td>Failure to follow up a new finding</td>
<td></td>
</tr>
<tr>
<td>Failure or delay in completing recommended diagnostic test</td>
<td></td>
</tr>
<tr>
<td>Clinician did not receive test results (other)</td>
<td></td>
</tr>
<tr>
<td>Failure to identify provider coordinating care</td>
<td></td>
</tr>
<tr>
<td>Other clinical systems failure</td>
<td></td>
</tr>
</tbody>
</table>
Insufficient Resources are Deployed to Address the Problem


A – All Medical Research
$35 Billion

B – Mentions Diagnosis
$7 Billion

C – Diagnostic Error Focus
$7 Million
Structural Impediments Drive Funding Gaps

Initial Basic Science  Late Clinical Translation  Dissemination & Implementation

Early Clinical Translation  Comparative Effectiveness  Learning Health Systems

Rx
NIH  NIH  NIH, PCORI, AHRQ, VA, CDC

Dx
NIH  FUNDING GAP  Very little diagnostic research reaches this stage
Measures of Diagnostic Quality also Lagging
The Impact is Visible

Weekly Incidence of Stroke & Heart Attack after a “Benign” ED Dizziness Discharge

Strategy: Catalyze Practice Improvement

- Up to $50,000 for one-year projects
- Next application period will open in November
- QI Repository is coming
Strategy: Develop Diagnostic Champions

Fellowship in Diagnostic Excellence
Develop Additional Expertise in Diagnostic Safety and Quality

• The one-year SIDM fellowship provides professional career development
  • A personal mentor in your area of focus within diagnosis (e.g., education, research, practice improvement, advocacy, informatics, etc.)
  • Networking within the diagnostic medicine field
  • A structured curriculum of webinars
  • Opportunities for disseminating scholarship

• Learn about current and past fellows:
  ▪ https://www.improvediagnosis.org/sidmfellowship/

• Register at SIDM’s site so you will be notified early in 2022 about the next application period.
Strategy: Seek Investment in Research

FY 18: Report Language

FY 19: $2 Million and Interagency Work Group

FY 20: $3 Million and H.R. 5014 (5-year authorization)

FY 21: $2 Million

FY 22: $8 Million (House) Authorizing Bill (Senate)
SIDM 2021

• Amazing Line-up
  ▪ Peter Pronovost, Ron Wyatt, Tejal Gandhi, David Ansel, Chris Cassel, Maya Dusenbery, Lakshmi Krishnan, Ibrahim Said, Urmimala Sarkar, Jaime Seltzer, Hardeep Singh, Gordon Schiff, David Newman-Toker, Gurpreet Dhaliwal
  ▪ Plus workshops, poster sessions, networking, awards
  ▪ For more information, visit https://www.improvediagnosis.org/sidm2021/
Closing Thoughts

• “The delivery of healthcare has proceeded for decades with a blind spot: Diagnostic errors...”

• “…most people will experience at least one diagnostic error in their lifetime, sometimes with devastating consequences.”

• “Improving the diagnostic process is not only possible, but it also represents a moral, professional, and public health imperative.”
For Further Information:

Paul.Epner@ImproveDiagnosis.org

Leslie.Tucker@ImproveDiagnosis.org

www.improvediagnosis.org
Join us next time!

Wednesday, October 6, 2021, 1 p.m. ET

Lee McIntyre
Research Fellow, Center for Philosophy and History of Science, Boston University
Civic Engagement Microgrants

DEADLINE: October 12

Learn more and apply: http://bit.ly/CivicEng2021