IOM: Improving Diagnosis in Health Care

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GOAL

Provide a very brief overview of dx error and the IOM report

Focus on issues relevant to the CDC

Opinions reflect those of SIDM, not the IOM

http://nas.edu/improvingdiagnosis
Study Solicitor

Study Sponsors

Agency for Healthcare Research and Quality
American College of Radiology
American Society for Clinical Pathology
Cautious Patient Foundation

Centers for Disease Control and Prevention

College of American Pathologists
The Doctors Company Foundation
Janet and Barry Lang
Kaiser Permanente National Community Benefit Fund at the East Bay Community Foundation
Robert Wood Johnson Foundation
HOW BIG A PROBLEM IS THIS??

40,000 – 80,000 deaths (autopsy data)
1 in 10 diagnoses are wrong (secret shoppers)
1 in 3 people surveyed have experienced a dx error (survey)
Most common cause for a malpractice claim (CRICO, VA, KP)

1 in 20 patients will experience a dx error every year (chart review)
“The committee recognized that ... the available research estimates were not adequate to extrapolate a specific estimate or range of the incidence of diagnostic errors in clinical practice today.”

“It is likely that most of us will experience at least one diagnostic error in our lifetime, sometimes with devastating consequences.”
Where are Diagnostic Errors Encountered?

- Ambulatory: 56%
- Inpatient: 28%
- ED: 16%

CBS N=4,519 PL cases closed 1/1/08–12/31/12 with a diagnosis-related major allegation.
Why do they happen?

100 cases – 535 root causes
Graber et al. Arch Int Med 165:1493-9, 2005

SYSTEM

BLUNT end

SHARP end

Patient’s Clinical Course

Communication, coordination, training, policies, procedures

Me

Cognitive
Diagnosis is HARD!

PATIENT VARIABLES
Stage of disease
How it manifests
How it is perceived
How it is described
When help is sought

PHYSICIAN VARIABLES
Knowledge and experience
Access to patient data, tests, consults
Skill in clinical reasoning
Stress, distractions, mood, time to think

SYSTEM COMPLEXITY
Disjointed care
Communication barriers
Production pressure
Tight coupling
Access to care & expertise

10,000 Diseases
5,000 Lab Tests
IOM Conclusion

Diagnostic errors are a significant but underappreciated challenge to health care quality

- Getting the right diagnosis is a key aspect of health care: it provides an explanation of a patient’s health problem and informs subsequent health care decisions

- Diagnostic errors persist through all settings of care and harm an unacceptable number of patients
The Total Testing Process

- Ordering
- Transcription
- Sample Collection
- Transportation
- Processing

ERROR RATES

<table>
<thead>
<tr>
<th>Process</th>
<th>Error Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bench tests:</td>
<td>14%</td>
</tr>
<tr>
<td>Anatomic Path</td>
<td>2-4%</td>
</tr>
<tr>
<td>Reporting</td>
<td>&lt; 0.1%</td>
</tr>
<tr>
<td>Interpretation</td>
<td>7.5%</td>
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<tr>
<td>Action</td>
<td></td>
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</table>
IOM Definition of 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

The single biggest problem in communication is the illusion that it has taken place.

George Bernard Shaw
“I wish I had seen this test result earlier!”

Survey of 262 internists:
83% reported at least one unacceptable delay during the previous 2 months

EG Poon et al. Arch Intern Med 164: p2223-8, 2004
Notification of Abnormal Lab Results

**AMBULATORY CARE**

Studied 4 alerts: A1c > 15%, PSA > 15 ng/ml, TSH > 15 mIU/L, + Hep C Ab
1163 critical abnls sent over 6 mo period: 10% never acknowledged

*Singh et al. Am J Med 2010; 123:238-44*

**TESTS PENDING AT DISCHARGE**

Systematic review of 12 studies
23% of inpatients will have tests still pending at discharge
10% require action, but physicians are unaware of 60%

SIDM Recommendation #1:

CDC should encourage laboratories to take responsibility for failsafe communication of ALL test results, and should identify best practices in this area.

(No specific IOM recommendation on this)
| **1.** Facilitate more effective teamwork in the diagnostic process among health care professionals, patients, and their families |
| **2.** Enhance health care professional education and training in the diagnostic process |
| **3.** Ensure that health information technologies support patients and health care professionals in the diagnostic process |
| **4.** Develop and deploy approaches to identify, learn from, and reduce diagnostic errors and near misses in clinical practice |
| **5.** Establish a work system and culture that supports the diagnostic process and improvements in diagnostic performance |
| **6.** Develop a reporting environment and medical liability system that facilitates improved diagnosis through learning from diagnostic errors and near misses |
| **7.** Design a payment and care delivery environment that supports the diagnostic process |
| **8.** Provide dedicated funding for research on the diagnostic process and diagnostic errors |
IOM GOAL 1
More effective teamwork in the diagnostic process

1A: Health care organizations should ensure.....

• Involvement of the PATIENT as a member of the team, and NURSES

• Collaboration among pathologists, radiologists, other diagnosticians, and treating health care professionals to improve diagnostic testing processes.
SIDM Recommendation #2:

CDC should support the IOM recommendations for Pathologists to be full members of the diagnostic team, and necessary changes in payment practices to allow compensation of consultative services.
IOM GOAL 4
Develop approaches to identify, learn from and prevent diagnostic errors

Autopsy

To counter-act overconfidence, nothing is more powerful than an autopsy to convey the uncertainty of diagnosis

The autopsy has essentially disappeared from use as a learning tool and nothing has replaced this
IOM RECOMMENDATIONS:

4a: Accreditation organizations and the Medicare conditions of participation should require that health care organizations have programs in place to monitor the diagnostic process and identify, learn from, and reduce diagnostic errors and near misses in a timely fashion.

4b: Health care organizations should implement procedures and practices to provide systematic feedback on diagnostic performance to individual health care professionals, care teams, and clinical and organizational leaders.

4c: HHS should provide funding for a designated subset of health care systems to conduct routine postmortem examinations on a representative sample of patient
SIDM Recommendation #3:

CDC should support the IOM recommendations that would support learning from autopsies at special centers
148 peer reviewed comparative studies
5 year look-back at the Mayo Clinic of 71,811 cases
  – 457 major disagreements (0.6%)
  – Of these: 90% involved a major change of treatment or prognosis

• Of 166 cases with tissue follow-up: second opinion correct in 85%
Look back at 1499 patients
  – 394 major disagreements (26%)

• Of these disagreements, on follow-up:
  – 69% agreement with second opinion
  – 24% agreement with the first opinion
SIDM Recommendation #4

CDC should endorse second opinions in anatomic pathology and provide more definitive guidance on what cases should be reviewed and by whom

(No specific IOM recommendation on this)
Summary: SIDM Recommends that CDC should support

1. Failsafe communication of lab test results
2. Funded clinical liaison pathologists in every hospital (IOM)
3. Funded autopsies at special centers (IOM)
4. Second opinions on surgical pathology

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