



# Overcoming Systemic Challenges to Reduce Diagnostic Error

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**OUR PURPOSE: TO PROTECT, DEFEND, AND SUPPORT OUR MEMBERS**



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# LEARNING OBJECTIVES



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- Explain why diagnostic error is problematic
- Identify contributing causes to diagnostic error
- Review solutions to mitigate the risk of diagnostic error
- Examine relevant monitoring strategies to evaluate risk

- The diagnostic process is complex and involves multiple steps including:
  - Assessment
  - Examination
  - Testing
  - Referral(s)
- Timely and accurate diagnosis is critical to the overall success of treatment

- Diagnostic Error is defined in two ways by the National Academy of Medicine:
  - “The failure to establish an accurate and timely explanation of the patient’s health problem(s)”
  - “The failure to communicate that explanation to the patient”



- There are three main categories of diagnostic error:
  - Delayed diagnosis- patient should have been diagnosed earlier
  - Missed diagnosis- original diagnosis is incorrect
  - Wrong diagnosis- patient never receives an accurate diagnosis

- According to the National Practitioner Data Bank:
  - Diagnostic errors were the most common allegation in an analysis of 350,000 malpractice claims
  - Diagnostic errors represents 29% of claims and 35% of malpractice insurance payouts
  - 41% of claims involving diagnostic error result in death, compared to 24% of claims involving other allegations



- Diagnostic error can result in a delay in treatment options that could have created better quality of life and reduced suffering
- Wrong or delayed diagnoses cause more serious harm than any other type of medical error
- 40,000-80,000 patients die annually from diagnostic error (Society to Improve Diagnosis in Medicine)





- Human factors
  - Cognitive errors
  - Misinterpretation of results
  - Miscommunication
  - Confirmation bias
  - Resource Management
  - Burnout/workload
  - Distractions



- Patient factors
  - Noncompliance or nonadherence with treatment recommendations
  - Early access to test results (MyChart)
  - Social determinants that impede access to care
  - Miscommunication



- System factors
  - Unclear follow-up instruction
  - Limited access to specialists
  - Lack of care coordination
  - Multiple handoffs
  - Miscommunication



- 36 year old male presents for HIV screening
- HIV test results indicate further testing is indicated
- Electronic Health Record designed to automatically "flag" abnormal results and initiate a "reflex" order
- HIV test result not flagged as abnormal and was therefore never viewed by the ordering provider

# CASE STUDY #1 – DELAYED DX



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- Physician instructs the medical assistant to inform patient that he was negative for HIV
- Patient's health declines over the next six years
- Patient is hospitalized and a rapid HIV test obtained

# CASE STUDY # 1 – DELAYED DX



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- Positive HIV diagnosis made
- Past medical history determined patient was in need of follow-up six years prior to diagnosis
- Other individuals unknowingly exposed to HIV due to delay



## Risk Management Guidance:

- Confirm that EHR flags are appropriately applied
- Evaluate workflows in response to abnormal tests
- Confirm that reflex orders are viewed by a provider
- Do not deviate from defined workflows/formats

## CASE STUDY #2 - REFERRAL



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- 70 year old female presents to Emergency Department with shortness of breath
- Chest x-ray reveals pneumonia
- Incidental pulmonary nodule noted by radiology
- Radiology report recommends "additional imaging to evaluate pulmonary nodule"



## CASE STUDY #2 - REFERRAL

- Patient is treated for pneumonia and discharged home
- Patient is not told she has pulmonary nodule but it advised to follow-up with her PCP if her symptoms worsen
- Radiology report is not sent to the patient's PCP

## CASE STUDY #2- REFERRAL

- 8 months later the patient is evaluated by her PCP for weight loss and persistent cough
- A CT scan is ordered and patient is diagnosed with metastatic lung cancer
- Patient is advised that she had pulmonary nodule 8 months prior

## Risk Management Guidance:

- Establish a process to ensure communication of incidental findings to the patient and their PCP when applicable
- Consider engaging case management to facilitate completion of referrals and follow-up recommendations
  - Document efforts to resolve any issues with this process in the medical record



- 62 year old male is ordered to have routine Prostate Serum Antigen (PSA) screening
- Lab test was not able to be completed as patient was not fasting
- Patient did not keep rescheduled appointment for lab



- Two years later the patient presents for a physical and a PSA is obtained and indicates a need for close monitoring
- No labs are scheduled at the time of the appointment
- No follow-up reminders or communication are sent to patient



- 5 years later the patient reports a decrease in urine volume
- PSA is ordered but the order is cancelled by the lab for unknown reasons and the lab-work is not rescheduled
- Patient return a year later with a PSA well outside normal levels and is diagnosed with prostate cancer



## Risk Management Guidance

- Educate lab staff to never cancel a lab order without notifying the ordering provider and documenting rationale
- List the patient's responsibilities as part of the written plan and provide a copy to the patient.
- Encourage patients to schedule follow-up appointments prior to leaving, send appointment reminders, etc.
- Document with specificity nonadherent or noncompliant behavior in the patient record

- Implement a process to "Close the Loop" that includes:
  - Verification of order or referral
  - Communication of results to the ordering physician
  - Timely review of results
  - Patient notification of test results or referral outcome
  - Completion of indicated follow-up
  - Documentation in the medical record of all steps including any declinations of care



- Standardize processes to improve accuracy and efficiency
- Evaluate workflows to identify areas of potential bottlenecking
- Develop a tracking system to improve adherence with follow-up
  - Recalls and reminders



- Consider alternate care delivery models, such as telehealth if feasible
- Standardize interventions for patients who decline or are unresponsive to follow-up



- Culture:
  - Encourage non-punitive reporting of actual and near miss events related to diagnostic error
  - Engage frontline staff to develop sustainable solutions
  - Communicate results and share lessons learned



- Systems:
  - Analyze data to identify trends
  - Clearly assign responsibility for actionable items
  - Implement relevant action plans to address opportunities
  - Continue data capture and analysis to monitor progress and evaluate effectiveness of interventions

- Physicians Insurance
- Society to Improve Diagnostic Medicine
- Agency for Healthcare Research and Quality (AHRQ)
- Emergency Care Research Institute (ECRI)
- Washington State Hospital Association

# REFERENCES

- “Closing the Loop on Diagnostic Tests: Information Technology Solution” September 2017. Accessed at: [https://www.ecri.org/Resources/HIT/Closing\\_Loop/Closing\\_the\\_Loop\\_Evidence\\_Report.pdf](https://www.ecri.org/Resources/HIT/Closing_Loop/Closing_the_Loop_Evidence_Report.pdf) (ecri.org)
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**THANK YOU**

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