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Delayed, Wrong or Missed: Diagnostic Process Failure in NP Practice

Surani Hayre-Kwan, DNP, MBA, FNP-BC, FACHE, FAANP
Vice President, Professional Practice & Ambulatory Patient Care
Sutter Health

Jacqueline Ross, RN, PhD
Coding Director, Department of Patient Safety and Risk Management
The Doctors Company

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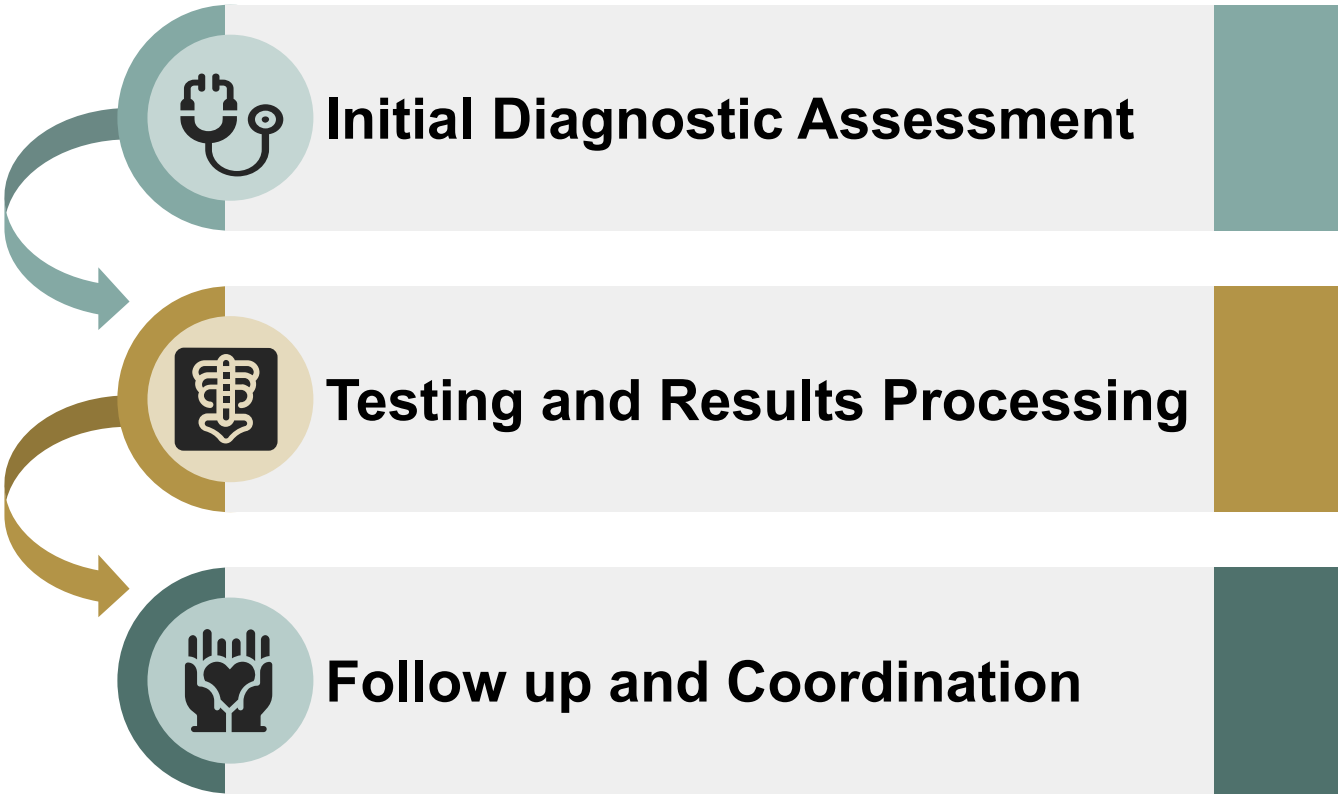
Learning Objectives

1. Define the Diagnosis-Related Process of Care Framework.
2. Recognize the contributing factors related to diagnostic process failure and where these occur in the Diagnosis-Related Process of Care Framework.
3. Summarize risk mitigation strategies related to the delay or failure in order diagnostic tests

Diagnosis-Related Process of Care Framework



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Nurse Practitioners Diagnosis-Related Malpractice Claims 2010-2020

Using the Diagnosis-Related Process of Care Framework

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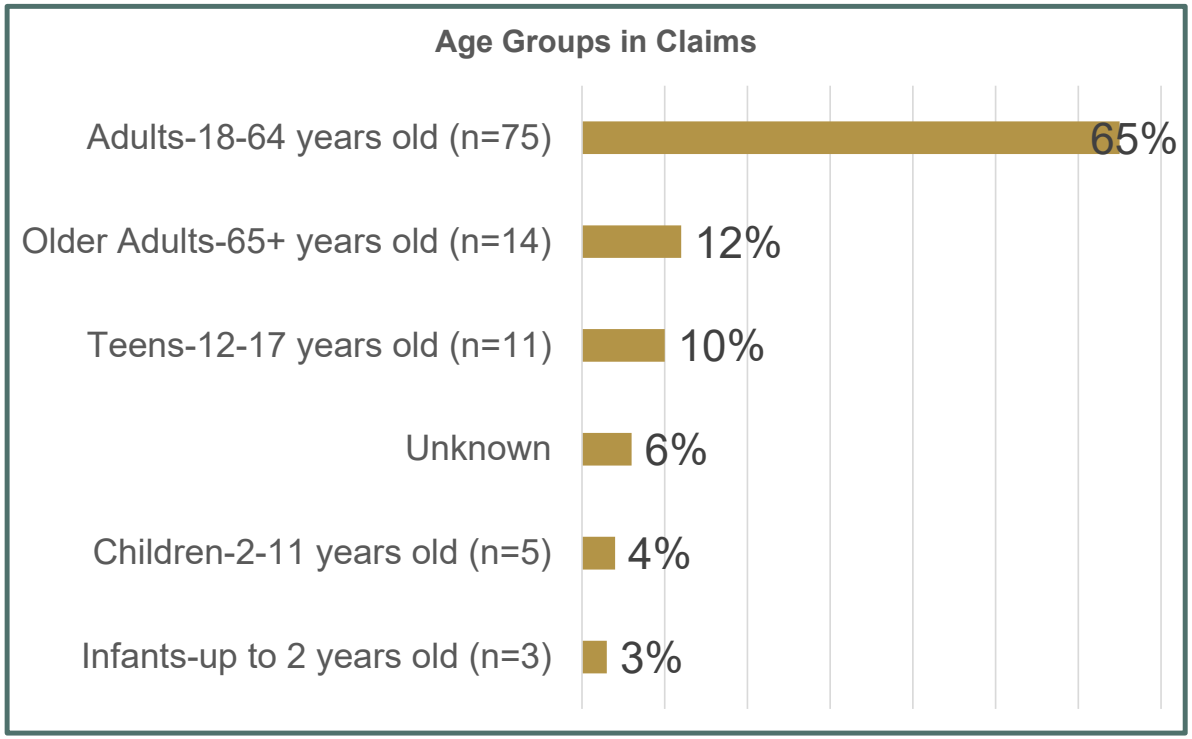
NP Diagnosis-Related Claims
2010-2020 (n=115)

115 Diagnosis-Related claims involving NPs

- 57% female NPs
- 43% male NPs



NP Diagnosis-Related Claims (2010-2020 cont'd) Indemnity Paid

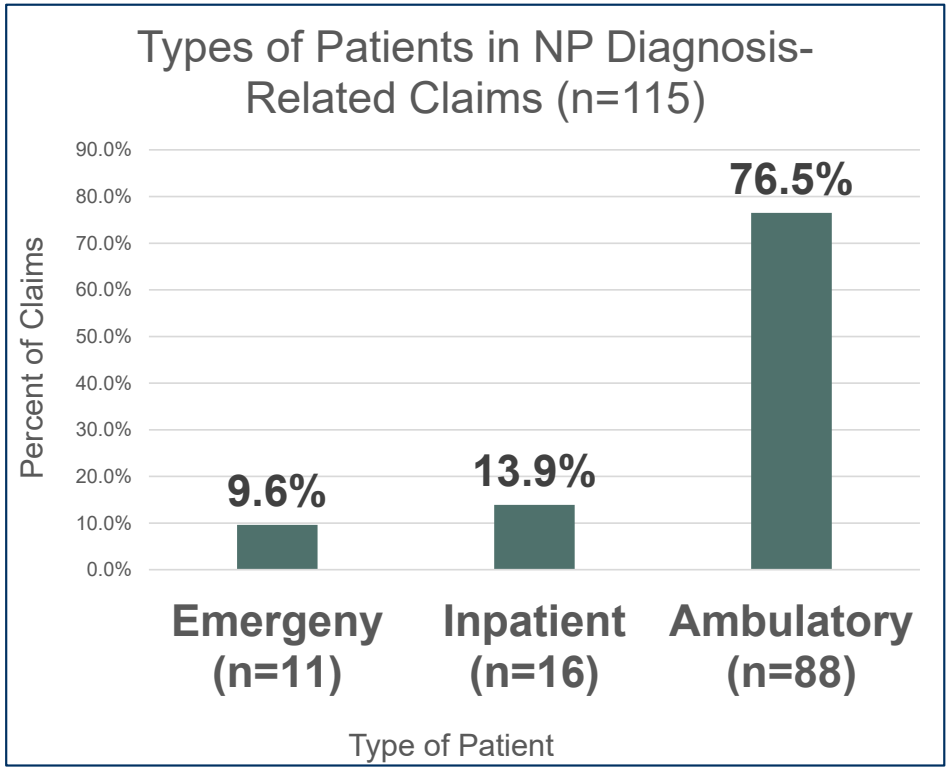
- **Indemnity** means a sum of money paid to a person in compensation for damages or losses they have incurred or will incur related to a specified accident, incident, or event.

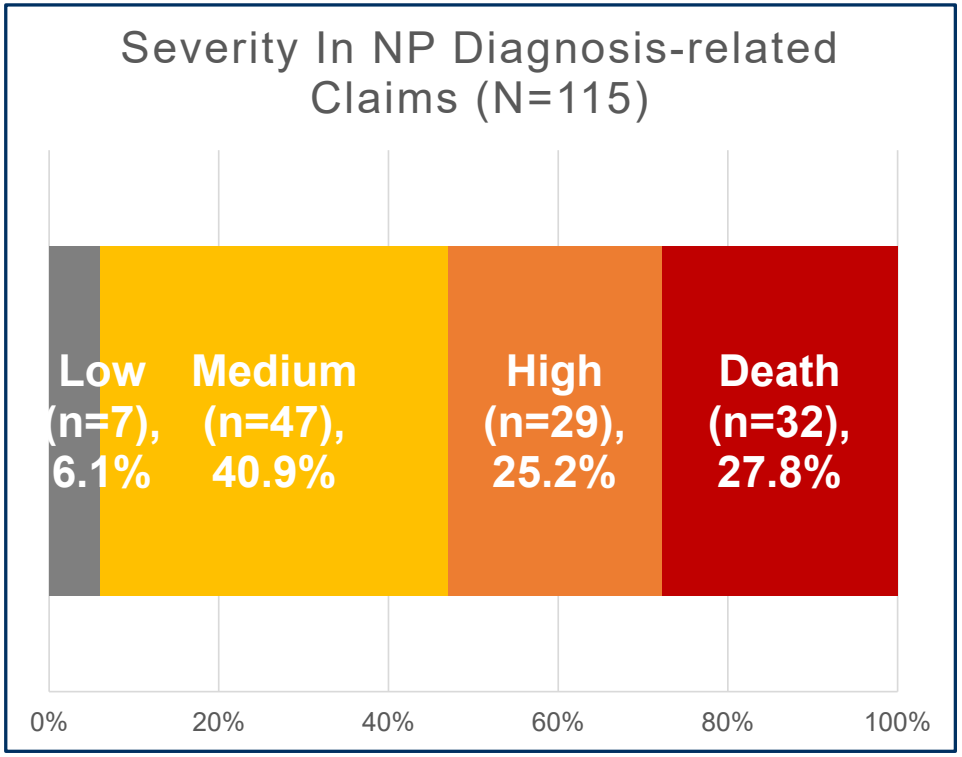
Claims closed with indemnity paid
43.5%

Average indemnity paid
$500K

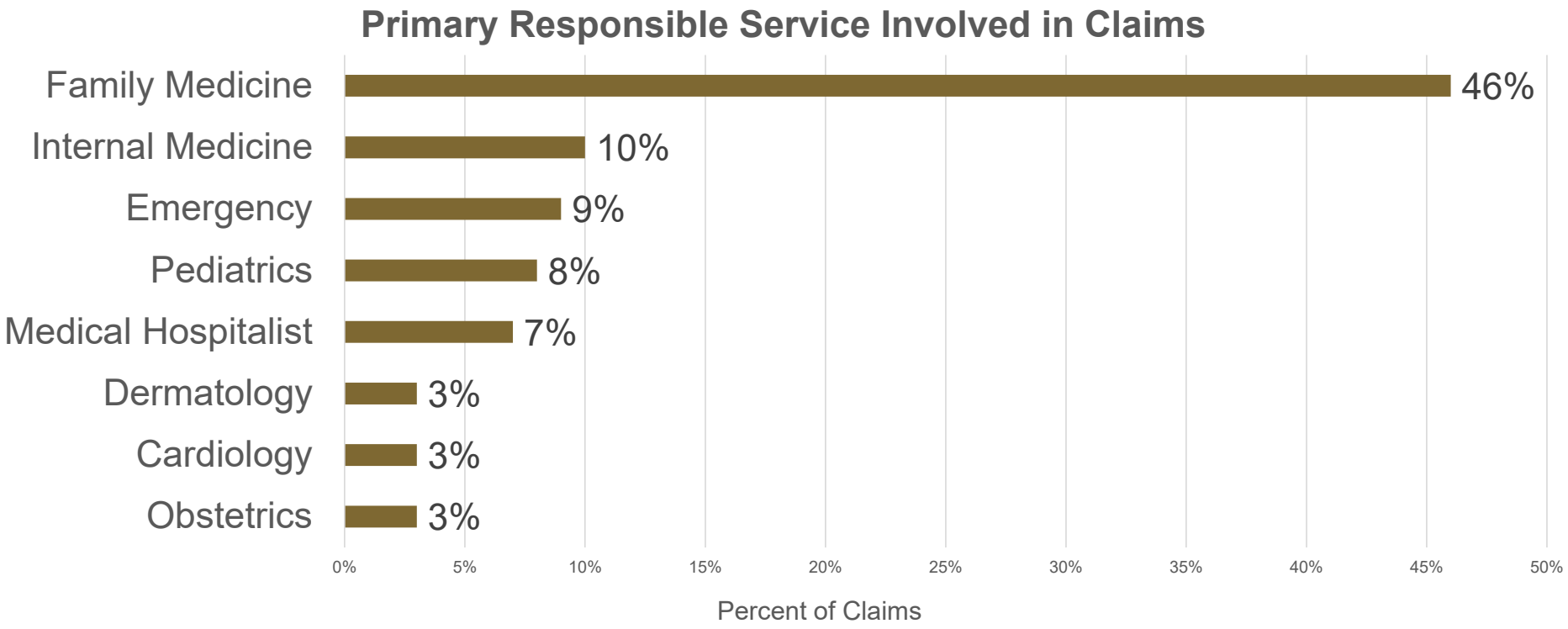
Median indemnity paid
$265K

NP Diagnosis-Related Claims (2010-2020 cont'd)



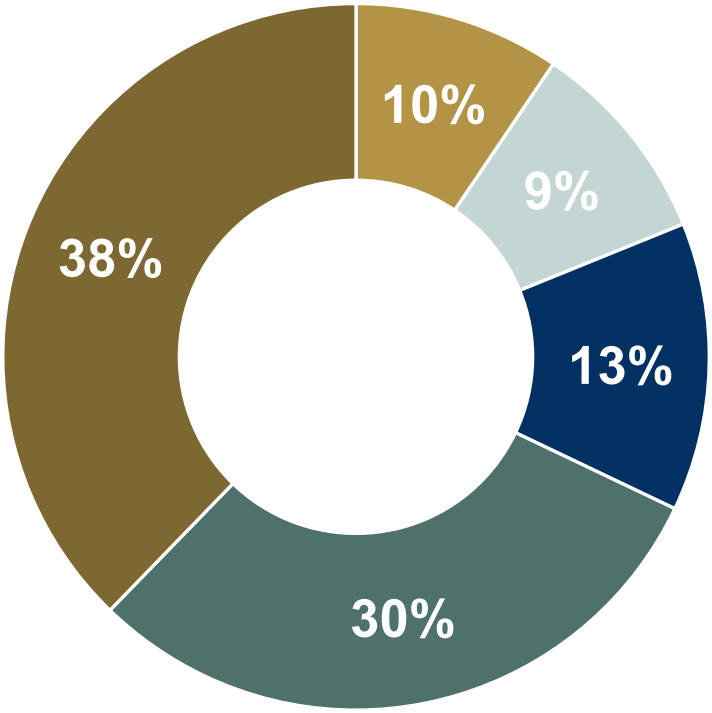


NP Diagnosis-Related Claims (2010-2020 cont'd)



RJM0

NP Diagnosis-Related Claims (2010-2020 cont'd)



- **Compression**
  Testicles, legs with compartment syndrome
- **Embolisms/ Thrombosis**
  Lungs, brain, legs
- **Fractures**
- **Infections**
  Meningitis, endocarditis, pneumonia
- **Malignancies**
  Breast, lungs, lymphatics

Slide 10

RJM0 Can we re-order these with malignancy top, then infection, then fracture--in other words--how they are in percentages?
Ross, Jacqueline M, 2024-03-12T14:00:29.700

NP Diagnosis-Related Claims 2010-2020 cont'd: Comorbidities Influencing Outcomes (n=115)

57% of claims patients' comorbidity not considered a factor in the claim

27% obesity was a factor

22% smoking (current/past) was a factor

20% diabetes and hypertension was considered a factor

Diagnosis-Related Process of Care Framework with NP Related Claims

A Deeper Dive

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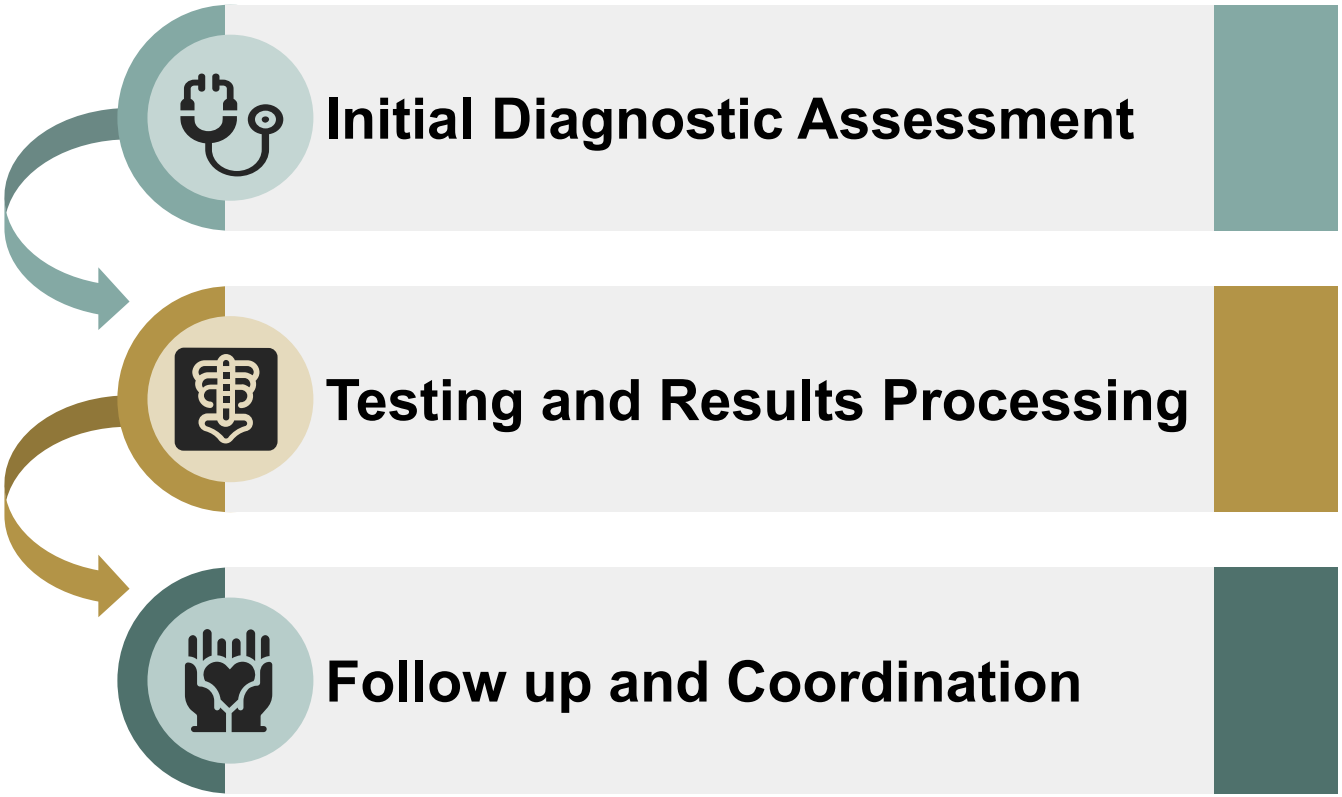
Diagnosis-Related Process of Care Framework



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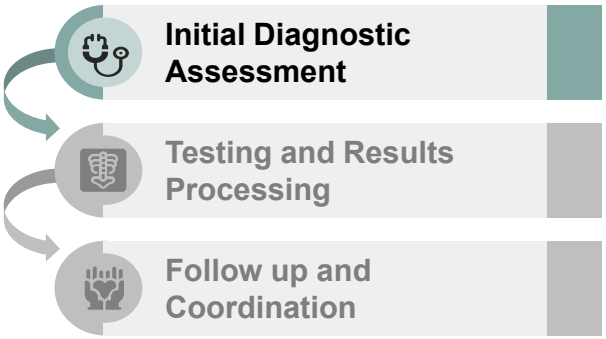
A Diagnosis Scenario To Consider

- A patient in their fifties with Type 2 diabetes came into PCP office complaining of nausea, vomiting, and diarrhea for few days.
- A family member had been in office few days prior and was diagnosed with a viral intestinal infection.
- The patient had an elevated heart rate (140s), was pale, ill-appearing. A urine analysis showed 2+ protein, 3+ ketones, and 3+ glucose.
- The patient was seen by the NP.

What do you think were the next steps done by the NP?

Initial Diagnostic Assessment



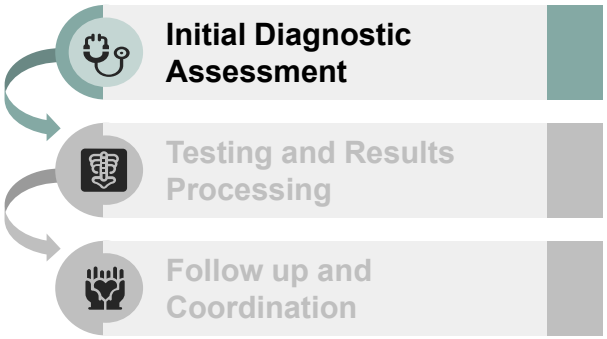
Begins when the patient presents for care, through assessment and tests.

Related to contributing factors in judgment or documentation issues related to patient history, tests, and orders.

This phase involves five steps.

78% of the NP involved claims involved at initial diagnostic assessment failures.

Initial Diagnostic Assessment

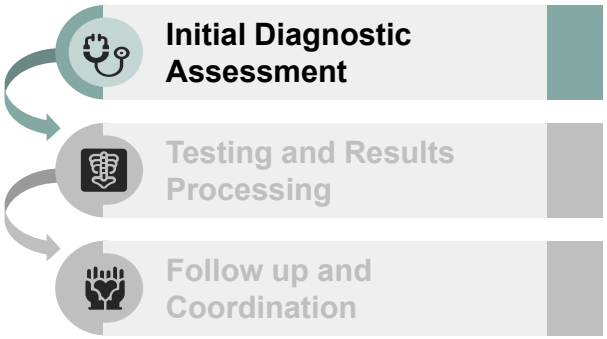


Step 1: Patient noted problem & seeks care (3%)

Step 2: History & physical (19%)

- Lack of/inadequate patient assessment—history & physical (includes allergies): 17%
- Insufficient/lack of documentation—history: 3%

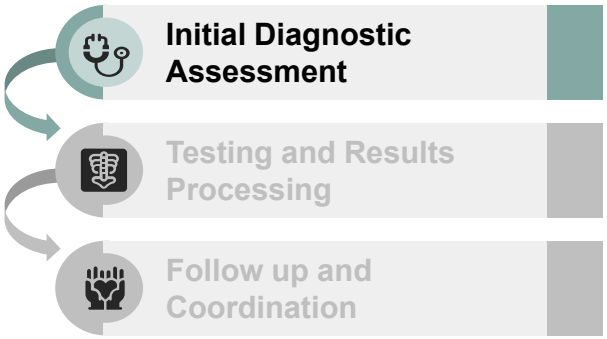
Initial Diagnostic Assessment



Step 3: Patient assessment and evaluation of symptoms (40%)

- Failure to appreciate and reconcile relevant sign/symptom/test result: 33%
- Lack of/inadequate patient assessment: Premature discharge: 3%
- Patient assessment: Over reliance on negative findings on patient with continued symptoms/complaints: 3%
- Patient assessment: Failure to respond to repeated patient's concerns/symptoms: 2%

Initial Diagnostic Assessment



Step 4: Differential Diagnosis Established (60%)

- Narrow diagnostic focus
  - Failure to establish differential diagnosis: 30%
  - Atypical presentation: 15%
  - Chronic/previous diagnosis assumed: 9%
  - Relying on previous provider's diagnosis: 7%

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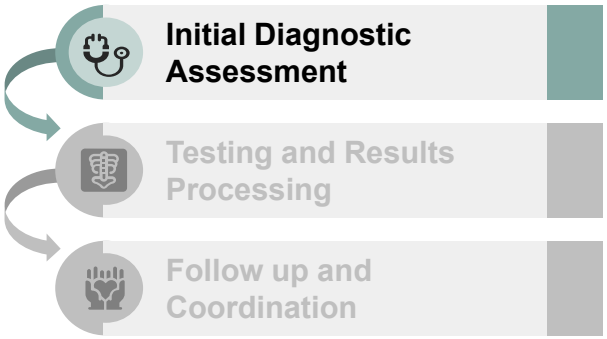
Initial Diagnostic Assessment



Step 5: Diagnostic Tests Ordered (53%)

- Patient assessment: Failure/delay in ordering diagnostic test
  - Top diagnostic tests not ordered:
    - Blood tests (31%)
    - CT scan (16%)
    - MRI (6%)
    - US (6%)
    - X-rays (5%).

Case Examples Involving Initial Diagnostic Assessment in Diagnosis-Related Malpractice Claims

Learning from Past Claims to Improve Patient Safety

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A Diagnosis Scenario To Consider

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- The patient was seen by the NP.

What do you think were the next steps done by the NP?

A Diagnosis Scenario To Consider cont'd.

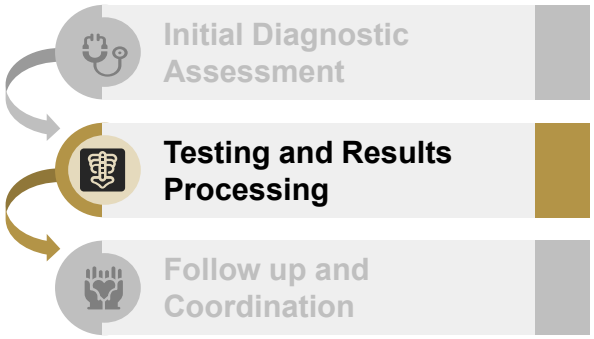
- There were no additional labs or finger sticks ordered.
- The NP diagnosed viral intestinal infection and dehydration
- The patient was treated with Promethazine for nausea and given 2 liters of normal saline.
- The patient was noted to be generally feeling better after the Promethazine and IV fluids.

Initial Diagnostic Assessment

- Failure to appreciate and reconcile relevant signs/symptoms: the patient had s/s of diabetic ketoacidosis with + ketones and glucose in urine, nausea and vomiting.
- Failure to establish a differential diagnosis and narrowly focusing on the diagnosis of the family member.
- The NP also did not order any additional tests, such as glucose testing.
  - CMP lab testing machine at the practice was malfunctioning that day. NP unaware of the availability of a glucometer in office.

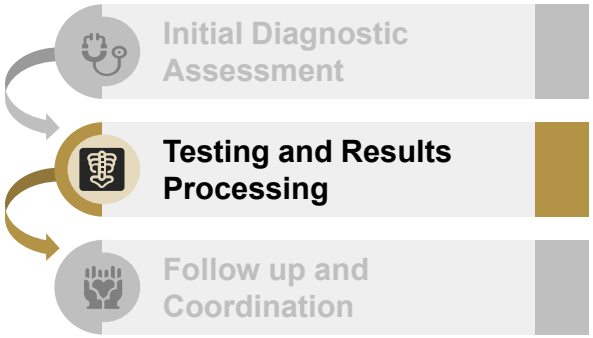
So, now what do you think happened?

Diagnosis-Related Process of Care Framework: Testing and Results Processing



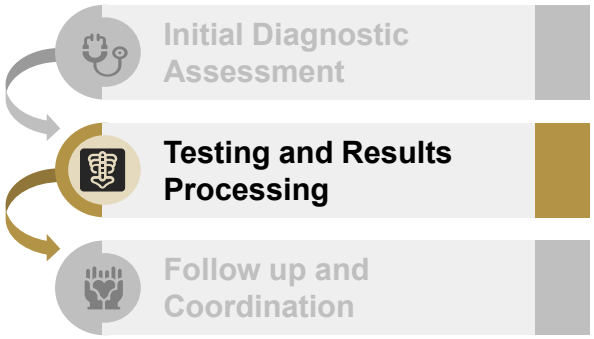
- This phase includes the scheduling, performing, interpreting, and management of diagnostic tests.
- Relates to contributing factors around the communication between providers, breakdown in systems and cognitive skills for interpretation.
- 22% of the NP involved claims involved testing and results processing factors.

Testing and Result Processing



- **Step 6: Performance of tests (7%)**
  - Failure or delay in doing or scheduling test: 7%
    - Tests involved most often delayed or not done were MRIs and CTs.
- **Step 7: Interpretation of tests (9%)**
  - Misinterpretation of diagnostic studies: 9%
    - Tests most frequently misread were X-rays.

Testing and Result Processing



Step 8: Receipt/transmit of test results to provider (9%)

- Provider did not get results: Filed prior to provider review (4%)
- Provider did not get results: Other (4%)
- Turnaround time too long (2%)

Case Examples Involving Testing and Results Processing in Diagnosis-Related Malpractice Claims

Learning from Past Claims to Improve Patient Safety

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Testing and Results Processing Case #1

- A male in his sixties with a strong family history of prostate cancer began treatment with NP. PSA year prior normal 1.2 (< 4.5)
- Next year exam noted as normal. PSA 4.0. NP noted plan to call or see patient in 6 months. There is no documentation of call to patient or referral to urology.
- Next year no PSA done. CMP showed alkaline phosphate 1875 (40-115). NP had medical assistant call patient to report labs were normal.
- 5 months later to urgent care complaining of lower back pain. X-ray: non-specific diffuse sclerosis spinal bones, pelvis ribs. Differential diagnosis included prostate cancer.

Testing and Results Processing Case #1

- A few days later, the patient went to another urgent care for ongoing back pain. CT: Differential diagnosis malignancy.
- Bone scan done which indicated metastatic disease likely from prostate cancer. PSA 913.
- Diagnosed with Stage 4 prostate cancer.

Testing and Results Processing Case #1

Experts' Opinions:

- NP never informed patient of increase in PSA.
- NP did not notice the increase in the alkaline phosphate. Unable to say if earlier diagnosis at that point would have made a difference.
- NP and group settled.

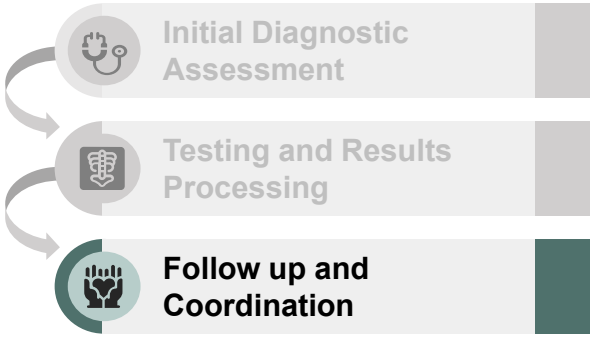
Testing and Processing Case #2

- Late afternoon a middle-aged woman comes to an urgent care complaining of worst headache ever. Said had fall and vomited x 1.
- Seen by NP.
- Diagnosis considered concussion and migraine.
- CT and labs ordered, along with Phenergan and IV fluids.
- Urgent care was described as very busy.
- After medications and IV fluids pain level was 6/10.
- WBC 15 (5-10) but NP did not see labs. Patient was discharged.

Testing and Processing Case #2

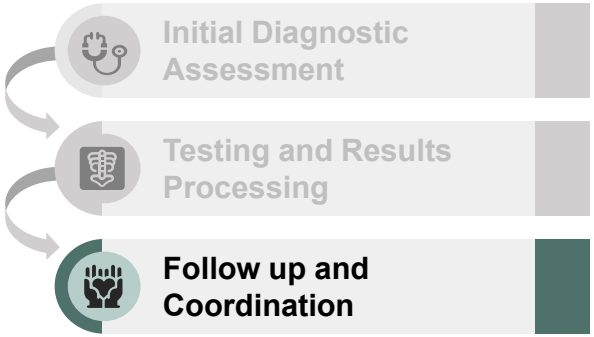
- The patient returned next day. Seen by different NP. This NP could not access previous NP computer with previous lab results.
- The patient had ongoing complaints of severe headache. Given IV fluids and pain meds. Diagnosis was concussion.
- Discharged.
- Next day returned with double vision, delirium.
- Admitted. Stat MRI, neurology consult. WBC 21. Spinal tap showed pneumococcus. Had cerebral edema.
- Had code. Died from bacterial meningitis.

Diagnosis-Related Process of Care Framework: Follow-up and Coordination



- Includes decisions made after assessment and testing
- Communication between providers and patients are seen in this phase. Factors related to patient adherence are also found here.
- 67% of the NP involved claims involve follow-up and coordination of care factors.

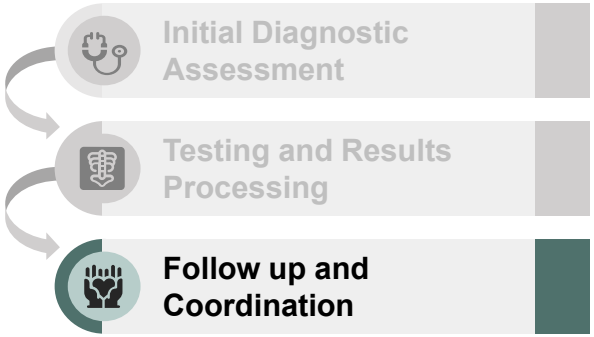
Follow-up and Coordination



Step 9: **Provider follows up with patient (28%)**

- Communication between the provider with the patient/family: Other: 13%
- Patient got no report or wrong report due to system error: 10%
- Patient/family education: Follow-up instructions: 3%
- Lack of/failure in patient follow-up system for a new finding: 4%

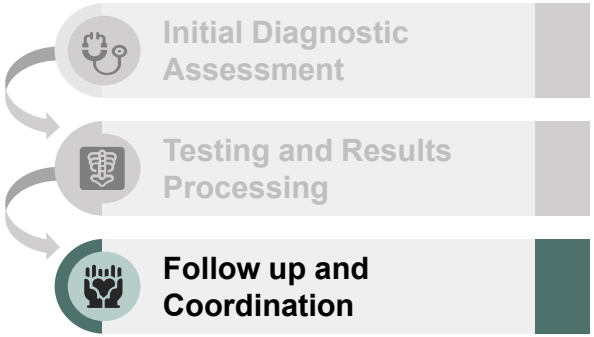
Follow-up and Coordination



Step 10: **Referral Management: 10%**

- Clinical judgment: Delay or failure in obtaining referral or consult: 10%

Follow-up and Coordination



Step 11: Provider to Provider Communication 39%

- Poor communication regarding patient's condition 21%
- Failure to read the medical record 17%
- Ineffective communication during transition in clinical settings 3%
- Poor professional rapport or relationships 3%
- Failure to have closed loop communication 3%

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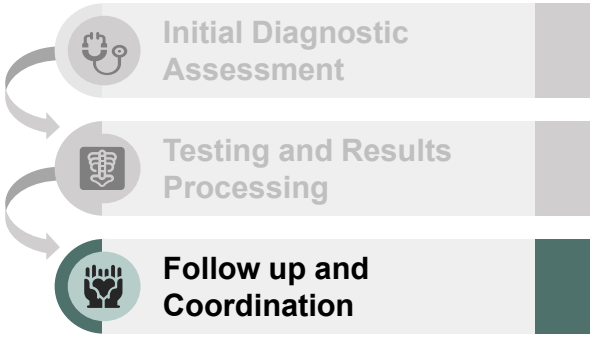
Follow-up and Coordination



Step 12: Patient compliance with follow-up plan: 15%

- Patient non-adherence with follow-up calls and/or appointments: 11%
- Patient non-adherence with treatment regimen: 10%
- Patient non-adherence with a diagnostic test procedure: 3%

Case Examples Involving Follow-up and Coordination in Diagnosis-Related Malpractice Claims

Learning from Past Claims to Improve Patient Safety

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Patient with Type 2 Diabetes: Viral Intestinal Infection and Dehydration

- Discharged from the office.
- Written discharge instruction were to follow-up with NP if worse and to go to the ED immediately with a change in condition.
- The NP said told the patient to check their glucose level at home and to go to the ED for additional labs and for a glucose level to be done.
  - These instructions from the NP are disputed by family members who were at office visit with patient. These additional instructions are not documented.
  - The patient died within 24 hours of seeing the NP.
  - The autopsy showed the cause of death as diabetic ketoacidosis. Glucose was 413.

Follow-up and Coordination in Diagnosis-Related Malpractice Claims

- Poor development of a discharge plan with the patient.
  - This patient needed lab work-up but there was no plan in place to get this done. No documentation existed that showed family was instructed to check glucose at home or go to ED for testing.
  - NP should have sent patient to ED rather than home.

Risk Mitigation Strategies

Improving Patient Safety

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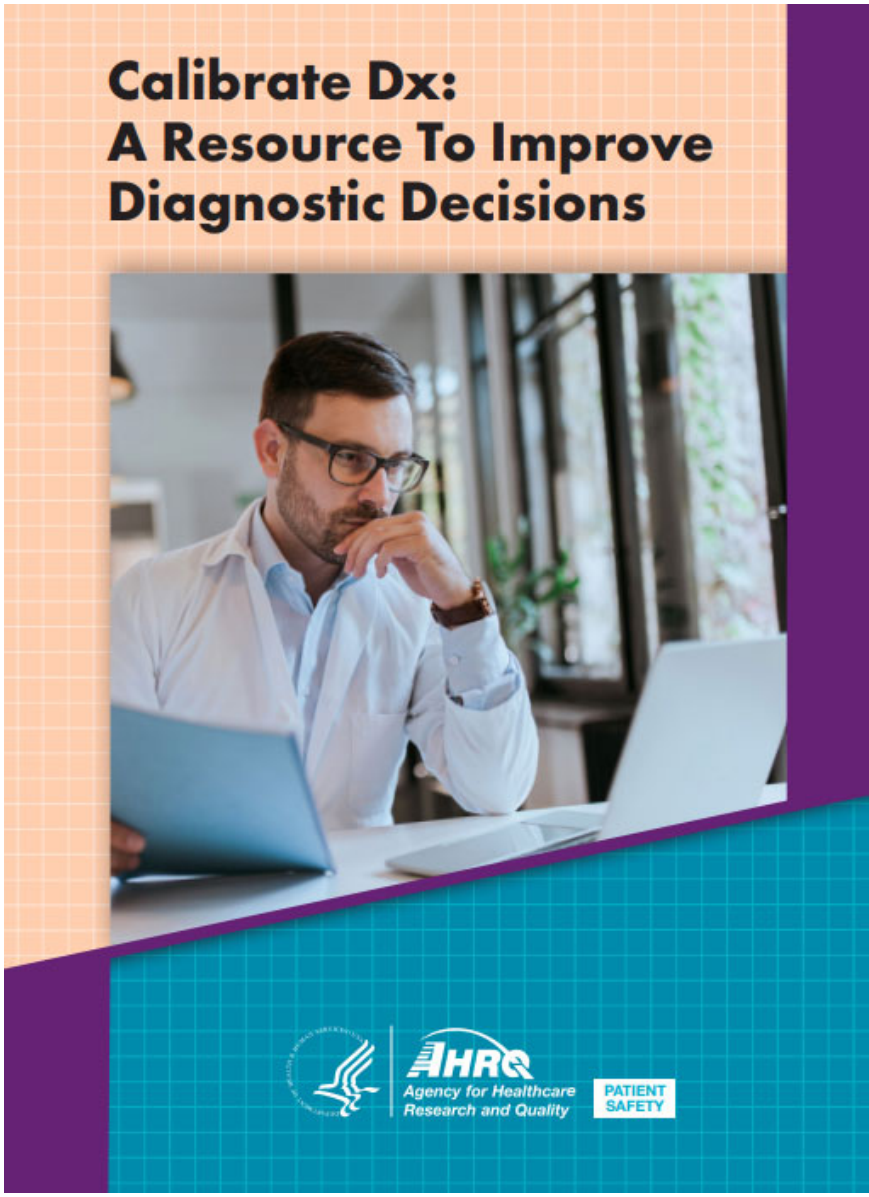
Cognitive Bias

- Acknowledge the potential for cognitive bias within daily practice
- Use tools such as those from The Joint Commission to:
  - Enhance knowledge and awareness of cognitive biases
  - Enhance professional reasoning, critical thinking and decision-making skills
  - Enhance work system conditions, workflow design that affect cognition
  - Promote an organizational culture that supports decision-making process

The Joint Commission

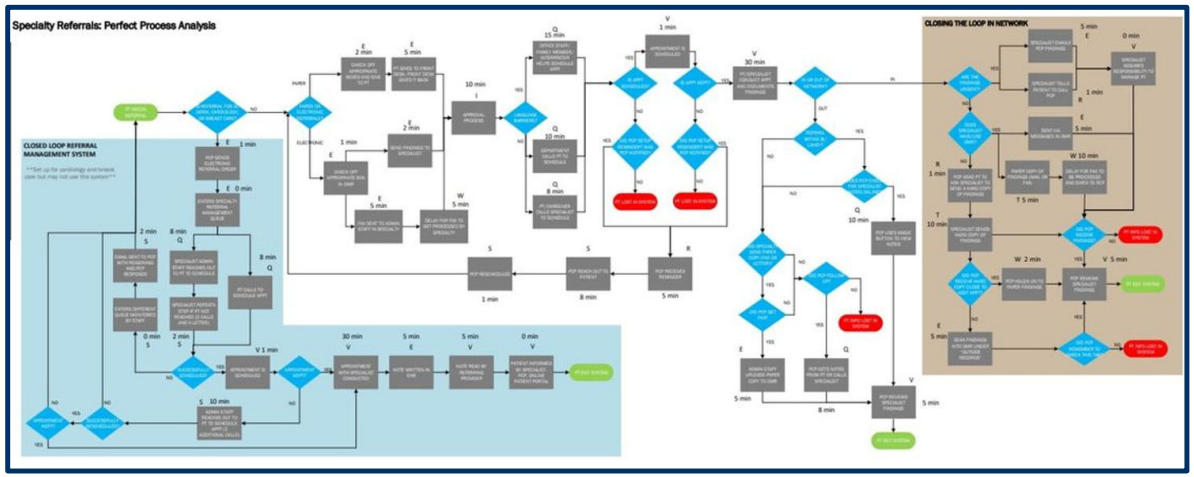
Self-Assessment

Access tools for self-assessment related to diagnostic issues, such as Calibrate Dx from the Agency for Healthcare Research and Quality (AHRQ).



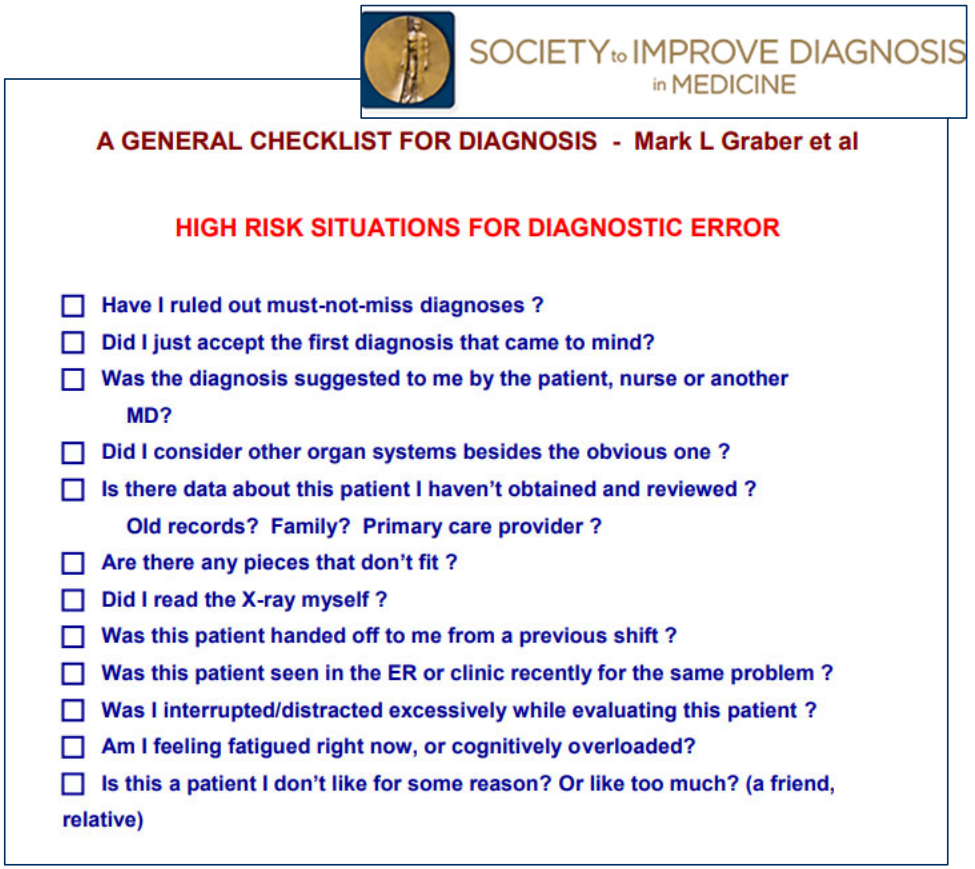
Create Systems

Create systems using a systems engineering framework to close the loops and ensure that patients complete their tests, consultations, and appointments.



Use Checklists

- Process checklists address common cognitive challenges that contribute to diagnostic error.
- Content checklists explore the most common diagnoses for any given symptom.



THANK YOU