Goal 1: Facilitate more effective teamwork in the diagnostic process among health care professionals, patients, and their families

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| In recognition that the diagnostic process is a dynamic team-based activity, health care organizations should ensure that health care professionals have the appropriate knowledge, skills, resources, and support to engage in teamwork in the diagnostic process. To accomplish this, they should facilitate and support:  
  • Interprofessional and intraprofessional teamwork in the diagnostic process.  
  • Collaboration among pathologists, radiologists, other diagnosticians, and treating health care professionals to improve diagnostic testing processes. | Health care professionals and organizations should partner with patients and their families as diagnostic team members and facilitate patient and family engagement in the diagnostic process, aligned with their needs, values, and preferences. To accomplish this, they should:  
  • Provide patients with opportunities to learn about the diagnostic process.  
  • Create environments in which patients and their families are comfortable engaging in the diagnostic process and sharing feedback and concerns about diagnostic errors and near misses.  
  • Ensure patient access to electronic health records (EHRs), including clinical notes and diagnostic testing results, to facilitate patient engagement in the diagnostic process and patient review of health records for accuracy.  
  • Identify opportunities to include patients and their families in efforts to improve the diagnostic process by learning from diagnostic errors and near misses. |

Goal 2: Enhance health care professional education and training in the diagnostic process

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| Educators should ensure that curricula and training programs across the career trajectory:  
  • Address performance in the diagnostic process, including areas such as clinical reasoning; teamwork; communication with patients, their families, and other health care professionals; appropriate use of diagnostic tests and the application of these results on subsequent decision making; and use of health information technology (IT).  
  • Employ educational approaches that are aligned with evidence from the learning sciences. | Health care professional certification and accreditation organizations should ensure that health care professionals have and maintain the competencies needed for effective performance in the diagnostic process, including the areas listed in Recommendation 2A. |

Goal 3: Ensure that health information technologies support patients and health care professionals in the diagnostic process

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| Health IT vendors and the Office of the National Coordinator for Health Information Technology (ONC) should work together with users to ensure that health IT used in the diagnostic process demonstrates usability, incorporates human factors knowledge, integrates measurement capability, fits well within clinical workflow, provides clinical decision support, and facilitates the timely flow of information among patients and health care professionals involved in the diagnostic process. | ONC should require health IT vendors to meet standards for interoperability among different health IT systems to support effective, efficient, and structured flow of patient information across care settings to facilitate the diagnostic process by 2018. | The Secretary of the U.S. Department of Health and Human Services (HHS) should require health IT vendors to:  
  • Routinely submit their products for independent evaluation and notify users about potential adverse effects on the diagnostic process related to the use of their products.  
  • Permit and support the free exchange of information about real-time user experiences with health IT design and implementation that adversely affect the diagnostic process. |

Goal 4: Develop and deploy approaches to identify, learn from, and reduce diagnostic errors and near misses in clinical practice

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| 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. Proven approaches should be incorporated into updates of these requirements. | Health care organizations should:  
  • Monitor the diagnostic process and identify, learn from, and reduce diagnostic errors and near misses as a component of their research, quality improvement, and patient safety programs.  
  • Implement procedures and practices to provide systematic feedback on diagnostic performance to individual health care professionals, care teams, and clinical and organizational leaders. | HHS should provide funding for a designated subset of health care systems to conduct routine postmortem examinations on a representative sample of patient deaths. | Health care professional societies should identify opportunities to improve accurate and timely diagnoses and reduce diagnostic errors in their specialties. |
Goal 5: Establish a work system and culture that supports the diagnostic process and improvements in diagnostic performance

**RECOMMENDATION 5**

Health care organizations should:
- Adopt policies and practices that promote a non-punitive culture that values open discussion and feedback on diagnostic performance.
- Design the work system in which the diagnostic process occurs to support the work and activities of patients, their families, and health care professionals and to facilitate accurate and timely diagnoses.
- Develop and implement processes to ensure effective and timely communication between diagnostic testing health care professionals and treating health care professionals across all health care delivery settings.

Goal 6: Develop a reporting environment and medical liability system that facilitates improved diagnosis by learning from diagnostic errors and near misses

**RECOMMENDATION 6A**
The Agency for Healthcare Research and Quality (AHRQ) or other appropriate agencies or independent entities should encourage and facilitate the voluntary reporting of diagnostic errors and near misses.

**RECOMMENDATION 6B**
AHRQ should evaluate the effectiveness of patient safety organizations (PSOs) as a major mechanism for voluntary reporting and learning from these events and modify the PSO common formats for reporting of patient safety events to include diagnostic errors and near misses.

**RECOMMENDATION 6C**
States, in collaboration with other stakeholders (health care organizations, professional liability insurers, state and federal policy makers, patient advocacy groups, and medical malpractice plaintiff and defense attorneys), should promote a legal environment that facilitates the timely identification, disclosure, and learning from diagnostic errors. Specifically, they should:
- Encourage the adoption of communication and resolution programs (CRPs) with legal protections for disclosures and apologies under state laws.
- Conduct demonstration projects of alternative approaches to the resolution of medical injuries, including administrative health courts and safe harbors for adherence to evidenced-based clinical practice guidelines.

**RECOMMENDATION 6D**
Professional liability insurance carriers and captive insurers should collaborate with health care professionals on opportunities to improve diagnostic performance through education, training, and practice improvement approaches and increase participation in such programs.

Goal 7: Design a payment and care delivery environment that supports the diagnostic process

**RECOMMENDATION 7A**
As long as fee schedules remain a predominant mechanism for determining clinician payment, the Centers for Medicare & Medicaid Services (CMS) and other payers should:
- Create current procedural terminology (CPT) codes and provide coverage for additional evaluation and management activities not currently coded or covered, including time spent by pathologists, radiologists, and other clinicians in advising ordering clinicians on the selection, use, and interpretation of diagnostic testing for specific patients.
- Reorient relative value fees to more appropriately value the time spent with patients in evaluation and management activities.
- Modify documentation guidelines for evaluation and management services to improve the accuracy of information in the EHR and to support decision making in the diagnostic process.

**RECOMMENDATION 7B**
CMS and other payers should assess the impact of payment and care delivery models on the diagnostic process, the occurrence of diagnostic errors, and learning from these errors.

Goal 8: Provide dedicated funding for research on the diagnostic process and diagnostic errors

**RECOMMENDATION 8A**
Federal agencies, including HHS, the U.S. Department of Veterans Affairs, and the United States Department of Defense, should:
- Develop a coordinated research agenda on the diagnostic process and diagnostic errors by the end of 2016.
- Commit dedicated funding to implementing this research agenda.

**RECOMMENDATION 8B**
The federal government should pursue and encourage opportunities for public–private partnerships among a broad range of stakeholders, such as the Patient-Centered Outcomes Research Institute, foundations, the diagnostic testing and health IT industries, health care organizations, and professional liability insurers to support research on the diagnostic process and diagnostic errors.

To download the full report and to find additional resources, visit nas.edu/improvingdiagnosis