



Core Elements of Hospital Diagnostic Excellence

Assessment Tool Priority Examples



The Hospital Diagnostic Excellence (DxEx) program assessment tool is a companion to the [CDC Core Elements of Hospital Diagnostic Excellence](#). This tool provides priority examples to help implement the Core Elements. The Core Elements are intended to be an adaptable framework that hospitals can use to guide efforts to improve diagnosis in the hospital. Thus, not all examples listed in the Core Elements (and below) may be necessary and/or feasible in all hospitals. The assessment tool can be used periodically (e.g., annually) to document current program infrastructure and activities and to help identify items that could improve the effectiveness of the diagnostic excellence program. Consider listing specific details, such as points of contact or facility-specific guidelines with the date, in the “comments” column as a reference for the hospital diagnostic excellence program. Additionally, consider listing specific examples that are used in your hospital in the comments section.

HOSPITAL LEADERSHIP AND ACCOUNTABILITY		
Example	Established at Facility	Comments
1. Our facility leadership has committed to the staff and board that improving diagnosis and ensuring the entire organization is accountable for progress is a priority for the hospital.	Yes No	
2. Our facility leadership has appointed one senior executive sponsor to serve as a point of contact or “champion” for the Diagnostic Excellence (DxEx) program to help ensure the program has the resources, capacity, and support to accomplish its mission.	Yes No	
3. Our facility leadership has provided at least two DxEx program co-leaders who are allocated time and resources to manage the program— a generalist physician lead (internal medicine, emergency medicine, etc.) and a laboratory and/ or radiology testing expert.	Yes No	
4. Our facility requires the following responsibilities from DxEx program leadership:	Yes No	
a. Accountability for DxEx program management and outcomes	Yes No	
b. Reporting of DxEx activities and outcomes (including key success stories) regularly to senior leadership and the hospital board	Yes No	
5. Our hospital leadership monitors the progress of the DxEx program to assess if the hospital is achieving its goals for improving diagnosis.	Yes No	
6. Our hospital leadership has dedicated human, financial, technological, and information technology resources necessary for the DxEx program.	Yes No	

Example	Established at Facility	Comments
7. Our hospital leadership regularly communicates with staff and clinicians about the importance of DxEx and its commitment to a culture of safety that encourages reporting and learning from diagnostic safety events without blame.	Yes No	

MULTIDISCIPLINARY EXPERTISE

Example	Established at Facility	Comments
8. Our hospital has created an inclusive and multidisciplinary DxEx team with laboratory and radiology testing experts	Yes No	
9. In our hospital, laboratory and radiology testing experts facilitate understanding of commonly used tests from the laboratory or radiological perspective (analytical validity) and the clinical interpretation of those tests in patients (clinical validity) and emphasize the difference between these perspectives.	Yes No	
10. In our hospital, laboratory and radiology testing experts are involved in any changes to common diagnostic tests (e.g., implementing sequential testing to decrease false-positive results and overdiagnosis).	Yes No	
11. In our hospital, laboratory and radiology staff can collaborate with DxEx program personnel. Together, they design optimal approaches to implementing new diagnostic tests.	Yes No	
12. In our hospital, interactions between clinicians and laboratory and radiology testing experts are facilitated through planned activities such as Tumor Boards, Infectious Disease Laboratory Rounds, routine clinician visits to the laboratory, or invitations to laboratory and radiology professionals to participate in clinical case discussions.	Yes No	
13. In our hospital, laboratory professionals are accessible in real-time for consultation regarding test selection and interpretation.	Yes No	

PATIENT, FAMILY, and CAREGIVER ENGAGEMENT

Example	Established at Facility	Comments
Engage patients and families as partners in diagnostic decision-making	Yes	
14. Our hospital facilitates patient direct access to diagnostic test results and their plain-language interpretations.	No	
15. Our hospital routinely seeks feedback from patients and families to improve the explanation or communication of results. We ensure communication is at appropriate literacy levels for patient interpretations.	Yes No	
16. Our hospital has strengthened engagement with patients, families, and caregivers as partners in the diagnostic team. We achieve this through active listening and enhanced communication during clinician-patient encounters. We provide education and resources to explain diagnostic uncertainty, orient patients to the purpose of testing, and explain how test results will be followed up.	Yes No	
17. Our hospital uses proactive approaches to ensure patients, families, or caregivers understand discharge diagnoses and pending activities such as tests and consultations.	Yes No	
Encourage patients and families to monitor health and information changes and bring forward concerns and questions about diagnosis	Yes	
18. Our hospital provides access to health information using the patient's preferred device (i.e., smartphone, personal tablet, or hospital-owned tablet).	No	
19. Our hospital has increased patient, family, and caregiver engagement in the use of portals by addressing barriers to their use and guiding patients and families through setting up and accessing portals.	Yes No	
20. Our hospital ensures that patients and their families and caregivers receive a list of any pending test results upon discharge. They also receive written instructions on how to obtain the results.	Yes No	

Example	Established at Facility	Comments
Respond to patient, family, and caregiver concerns		
21. Our hospital provides multiple channels for patients and families to report diagnostic safety events and concerns, including a mechanism to initiate a review of their care.	Yes No	
22. Our hospital has a formal process for investigating and responding to patient-reported diagnostic safety events. This includes addressing concerns such as patient worries about a missed diagnosis.	Yes No	
23. Our hospital has implemented a mechanism to correct the medical record when patients identify incorrect information.	Yes No	

ACTION		
Example	Established at Facility	Comments
Diagnostic Stewardship		
24. Our hospital ensures access to critical diagnostic tests as a part of laboratory capacity.	Yes No	
25. Our hospital restricts duplicate/repeat orders for tests that provide little additional benefit (e.g., <i>C. difficile</i> PCR, multiplex PCR tests).	Yes No	
26. Our hospital focuses on appropriate specimen collection and handling to prevent errors (blood cultures, urine cultures, etc.).	Yes No	
27. Our hospital has taken steps to improve diagnostic stewardship for frequently misused tests to optimize use. Examples include urine cultures, <i>C. difficile</i> tests, blood cultures, respiratory cultures, and multiplex molecular panel tests.	Yes No	

Example	Established at Facility	Comments
<p>28. Our hospital has implemented changes to test orders, including one or more of the following:</p> <p>a. Require clinicians to document symptoms/indications when ordering urine cultures.</p>	<p>Yes</p> <p>No</p>	
<p>b. Implement criteria for <i>C. difficile</i> testing (diarrhea, absence of laxatives).</p>	<p>Yes</p> <p>No</p>	
<p>c. Train clinicians in the appropriate reasons for blood culture ordering and collection methods.</p>	<p>Yes</p> <p>No</p>	
<p>d. Assure that protocols for pulmonary embolism testing include identifying and managing low-risk patients. For example, protocols include pulmonary embolism rule-out criteria (PERC) and D-dimer testing.</p>	<p>Yes</p> <p>No</p>	
<p>e. Implement appropriateness criteria for ordering specific CT or MRI testing.</p>	<p>Yes</p> <p>No</p>	
<p>29. Our hospital has implemented changes to laboratory test processing, such as</p> <p>a. Urine cultures only if pyuria is present, with limited exceptions (e.g., pregnancy and pre-urological surgery).</p>	<p>Yes</p> <p>No</p>	
<p>b. CSF multiplex testing only when white blood cells (WBC) are present.</p>	<p>Yes</p> <p>No</p>	
<p>c. Sequential <i>C. difficile</i> testing, including toxin testing.</p>	<p>Yes</p> <p>No</p>	
<p>30. Our hospital has implemented changes to test reporting to improve care and reduce false positive diagnoses and overtreatment (e.g., when multiple organisms in urine culture are found, the report notes “likely contamination”; note blood culture contamination; note antibiotic susceptibilities; use standard reporting language for pulmonary nodules on chest imaging, etc.).</p>	<p>Yes</p> <p>No</p>	

Example	Established at Facility	Comments
Strengthen systems and processes to support accurate and timely diagnosis	Yes	
31. Our hospital has improved teamwork and coordination within the hospital and continuum of care.	No	
32. Our hospital provides training and protocols for communicating diagnostic uncertainty during transitions of care.	Yes No	
33. Our hospital reliably transmits diagnostic findings to the responsible clinician using closed-loop communication or other methods, such as the SAFER Guide . We clarify responsibility and process for following up on abnormal clinical findings.	Yes No	
34. Our hospital includes diagnostic specialties in developing clinical care pathways and standards during diagnostic evaluations.	Yes No	
Identifying and learning from diagnostic safety events.	Yes	
35. Our hospital identifies diagnostic safety events from routine quality and safety monitoring.	No	
36. Our hospital enables clinicians and staff to report diagnosis concerns to the DxEx team for further investigation.	Yes No	

EDUCATION

Example	Established at Facility	Comments
37. Our hospital ensures that patients and family/ caregivers understand the important role of diagnosis and testing.	Yes No	
38. Our hospital promotes understanding of clinical reasoning and probability to students, trainees, clinicians, and hospital leaders.	Yes No	
39. Our hospital informs clinicians about thresholds for testing and treatment decisions.	Yes No	
40. Our hospital provides clinicians with clinical reasoning aids and other knowledge resources for diagnosis (e.g., CDC disease-specific guidance, specialty guidelines, testingwisely.com).	Yes No	
41. Our hospital provides current best practices for understanding and communicating diagnostic uncertainty.	Yes No	
42. Our hospital provides education about cognitive biases and situations where racial bias is likely more common.	Yes No	
43. Our hospital improves feedback by tracking patient outcomes and/or seeking feedback directly from peers or patients and their families/caregivers.	Yes No	
44. Our hospital encourages clinicians to implement reflective practices.	Yes No	

TRACKING AND REPORTING

Example	Established at Facility	Comments
45. Our hospital monitors and reports the activities of the diagnostic excellence program.	Yes No	
Diagnostic Stewardship		
46. Our hospital tracks the presence and effectiveness of diagnostic stewardship interventions to improve the diagnosis of UTI, <i>C. difficile</i> infection, and bloodstream infections.	Yes No	
Strengthen systems and processes to support accurate and timely diagnosis		
47. Our hospital reports the presence of forums to discuss challenging cases (e.g., M&M conferences, tumor boards, or case conferences).	Yes No	
48. Our hospital focuses on improving systems and processes related to disease conditions or high-risk situations (e.g., learning from safety events may reveal several cases of missed spinal epidural abscesses that require process improvements).	Yes No	
49. Our hospital reports specific actions and interventions taken to address the process of care or system gaps and opportunities.	Yes No	
Identifying and learning from diagnostic safety events		
50. Our hospital reports frequencies and types of diagnostic safety events identified from routine quality and safety monitoring.	Yes No	

Abbreviations:

CSF: Cerebrospinal fluid

CT scan: Computed Tomography scan

DxEx: Diagnostic Excellence

M&M: Morbidity and Mortality conference

MRI: Magnetic Resonance Imaging

PCR: Polymerase chain reaction

PERC: Pulmonary Embolism Rule-out Criteria

RCA: Root Cause analysis

TAT: Turnaround time

UTI: Urinary Tract infection

WBC: White blood cells