



**Subject:** Communication of Critical and/or Discrepant Findings  
**Policy:** RR003

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**PURPOSE:**

To standardize guidelines regarding the communication of diagnostic test results, and to ensure critical and discrepant test results are communicated in a timely and reliable manner to the responsible provider who can take action.

**POLICY:**

All diagnostic imaging procedures in which critical or acutely life-threatening findings are identified are to be reported to the ordering clinician or other responsible provider in a manner that confirms and documents receipt of information.

**DEFINITIONS:**

**1. Categorization of findings**

- a. Critical results are results that indicate the patient is in imminent danger of death, significant morbidity or serious adverse consequences unless treatment is initiated immediately. These findings require immediate (within 30 minutes of identification of the finding) interruptive notification of the responsible (ordering or covering) provider who can initiate the appropriate clinical action for the patient. Critical results require verbal communication between the radiologist and the ordering clinician. Acknowledgement by the ordering provider should be documented in the initial preliminary note, in addition to the attending radiologist's final report. An electronic verification request may also be initiated, but this should not preclude attempts to initiate verbal communication. See Appendix A for a listing of critical results organized by imaging subspecialty, vetted by each Division Director in the Department of Medical Imaging and approved by the departmental Quality and Safety Committee.
- b. Urgent results are results that indicate significant abnormalities that may cause significant morbidity, complications or serious adverse consequences unless diagnosis and treatment is initiated in a timely and reliable manner. These values or findings warrant rapid, but not immediate, attention by the responsible provider. These values do not represent an acute clinical emergency and do not warrant a STAT communication to the responsible provider. However, these findings do require prompt clinical attention in order that the patient or for the patient's

contacts may avoid serious adverse outcomes. Responsible providers should be notified of these values and findings within 24 hours. Note that the potential breadth of imaging findings that may be classified as “urgent”, in addition to complexities regarding individual medical care, precludes a comprehensive list of “urgent” findings to be included in the appendix of this policy. Determination of what constitutes an “urgent” finding will ultimately be decided by a combination of the judgment of the interpreting radiologist, the clinical history of the patient and any relevant discussions with referring clinicians.

- c. Unexpected, Important incidental results are unexpected results that are discovered on imaging and may ultimately affect the patient treatment plan in a significant manner. Unexpected, important incidental findings are not considered to have an immediate or even short term effect on patient health, but are nevertheless important to the patient’s ultimate care. They should be communicated to the ordering clinician with 1 week of discovery (by verbal or electronic means), and the communication should be documented in the attending radiologist’s final report. An example of an unexpected, important and incidental finding would be a clearly malignant neoplasm that is unrelated to the original indication for imaging.
2. **Discrepant results:** Results that indicate a significant correction or change between the initial reported result (i.e. “wet read”, PACS note or preliminary report) and the final report. Timeliness of communication of discrepant results is dependent on categorization of the clinical importance of the finding (example: critical, urgent or incidental), and should follow the same guidelines as detailed above.
  3. **Compliance Goal:** The facility-wide time value that represents the outside goal for completing the entire communication loop. The compliance goal will be set by the type and severity of the critical result or finding.

## PROCEDURE:

1. Critical Results: When a critical result or finding is identified, the radiology attending or resident notifies the ordering provider immediately, within the time frame detailed in this policy.
  - a. Critical results should always include a direct verbal communication between the reporting radiologist and the ordering physician in the non-ED setting. For emergency room patients, direct verbal communication is encouraged, but may not be necessary when critical findings are expected (for example, a severe trauma patient).
  - b. The expectation is that all critical findings are communicated within 30 minutes of identification of the finding.

- c. Communication of the critical results must be documented in both the initial PACS note and also the final signed report. When there is direct verbal communication of findings, documentation shall include at a minimum the name of the physician contacted and name of the communicating radiologist, as well as the date and time of the contact.
2. Urgent and Unexpected, Important Incidental Results: When an urgent or unexpected, important incidental finding is identified, the radiology attending or resident will notify the ordering provider in a timeframe defined by this policy.
  - a. Urgent results for patients from the Emergency Department that are identified by a preliminary reading provided by a resident/fellow must be documented with a PACS note, which will serve as the primary method of communication with the ED. If more than one PACS note is placed by the resident/fellow (regarding additional findings or interpretation), they must provide additional communication to the ED via direct, verbal communication; this communication will be documented in both the PACS note and the attending radiologist's final report.
  - b. Results for patients NOT from the Emergency Department may be communicated by direct verbal communication between the reporting radiologist and the ordering physician.
  - c. Communication of the urgent results will be documented in the final signed report, and should include the method of communication (PACS note, verbal discussion), the time of communication and the physician that relayed the findings.
3. Discrepancy Results: When a discrepancy is identified and verified, the radiology attending or resident must notify the ordering provider within the time frames detailed in this policy.
  - a. A significant reporting discrepancy must be communicated by direct verbal communication between the reporting radiologist and the ordering physician.
  - b. The expectation is that a discrepancy will be reported to the ordering clinician depending upon the severity of the result and following the time frames detailed above. If the discrepancy involves a critical result or finding, it must be reported within 30 minutes of identification of the finding.
  - c. Communication of discrepant results should be documented in the radiology attending's final report with at a minimum the name of the physician contacted, as well as the date and time of the contact.

## **APPENDIX A: DESCRIPTION OF CRITICAL RESULTS**

### **NEURORADIOLOGY**

1. Acute stroke
2. New or undiagnosed intracranial hemorrhage
3. New diagnosis of cervical spine fracture
4. Depressed skull fracture, > 5 mm
5. New or undiagnosed acute spinal cord compression
6. New or undiagnosed soft tissue abscess, including intraconal abscess
7. Epiglottitis
8. New hydrocephalus
9. Hemodynamically significant stenosis >70% in TIA, stroke
10. Clot within arterial vessel
11. Occipital condyle fracture requires CTA
12. New or undiagnosed arterial dissection
13. New or undiagnosed venous sinus thrombosis
14. New or undiagnosed spinal cord contusion/hematoma
15. Fracture of internal carotid canal in skull base/temporal bone fracture, requires CTA
16. New or undiagnosed discitis/osteomyelitis

### **BODY IMAGING (Thoraco-abdominopelvic)**

1. New or undiagnosed moderate-sized pneumothorax
2. New or undiagnosed mediastinal hematoma
3. New or undiagnosed pulmonary embolism in an inpatient
4. New opacified hemothorax (plain film): DDX of total lung collapse or massive pleural effusion
5. Cardiac tamponade
6. Empyema
7. Ischemic bowel, as indicated by pathologic pneumatosis, portal venous gas and bowel inflammation
8. Pneumoperitoneum, new and not related to recent procedure
9. Volvulus of large or small bowel
10. Ruptured ectopic pregnancy
11. Acute testicular torsion
12. Ovarian torsion
13. Massive or new/undiagnosed hemoperitoneum/retroperitoneum

### **VASCULAR**

1. Active extravasation of contrast, suggesting active bleeding
2. New or undiagnosed acute vascular thrombosis (arterial or venous)
3. New or undiagnosed acute vascular injury (dissection, acute pseudoaneurysm)
4. Actively bleeding or ruptured aneurysm

### **NUCLEAR MEDICINE**

1. Acute pulmonary embolism (high probability V/Q scan)
2. Acute cholecystitis
3. Active gastrointestinal bleeding
4. Absent perfusion, transplant kidney

### **MSK**

1. Acute or undiagnosed spinal fracture

2. Acute or undiagnosed hip fracture
3. Acute or undiagnosed musculoskeletal infection

**MISCELLANEOUS**

1. Retained surgical foreign body from OR film
2. Nasogastric/enteric tube in airway
3. Misplaced vascular catheter