

Department of Radiology, Brigham and Woman's Hospital

Policy for Communicating Critical and/or Discrepant Results (Created 1/31/06, Reviewed 3/10/09)

Purpose: Notification of the patient's healthcare provider when the radiologist determines that an imaging study has new and unexpected findings that could result in mortality or significant morbidity.

Policy:

1. Radiology findings requiring **direct notification** of a member of the **patient's care team** (defined as a healthcare professional immediately responsible for the care of the patient, including requesting physician, covering physician, attending physician, physician assistant, nurse, or nurse practitioner):

Critical: a new/unexpected radiologic finding that could result in mortality or significant morbidity if appropriate diagnostic and/or therapeutic follow-up steps are not undertaken

Discrepant: An interpretation that is significantly different from a preliminary interpretation, when the preliminary interpretation has been accessible to the patient care team and the difference in interpretations may alter the patient's diagnostic workup or management

2. Timelines for notification: Radiology reports should be read and signed in a timely manner [Note 1], and critical/discrepant results should be communicated as soon as possible after they are discovered. In all cases, **successful communication should occur within the following timelines**, which depend on the urgency level of the findings:

Red alert (new/unexpected findings that are potentially immediately life-threatening, such as tension pneumothorax, ischemic bowel, or intracerebral hemorrhage): These results require **immediate interruptive notification** of the ordering physician, covering physician, or other care team member who can initiate the appropriate clinical action for the patient. In all such cases, notification must be within **60 minutes** of discovery of findings

Orange alert (new/unexpected findings that could result in mortality or significant morbidity if not appropriately treated urgently [within 2-3 days], such as an intra-abdominal abscess or impending pathological hip fracture): Notification must be within **3 hours** of discovery of findings

Yellow alert (new/unexpected findings that could result in mortality or significant morbidity if not appropriately treated, but are not immediately life-threatening or urgent, such as a nodule on a chest x-ray or a solid renal mass on an ultrasound examination): Notification must be within **3 days** of discovery of findings

If no member of the patient's care team can be contacted in a timely fashion, an **escalation process** is defined [Note 2] to assure that the communication occurs within the above timelines.

3. Mode of Communication: Red and orange alerts must be communicated via **face-to-face or telephone contact**. Yellow alerts can be communicated in one of these ways, or via another method that allows the communicator to **verify that notification was successful**. As per JCAHO, E-mail is not a verifiable method of communication of critical/discrepant results.

4. The person communicating the critical/discrepant radiological finding should be certain that the member of the patient care team is **aware of the critical nature of the findings**.

5. The details of the communication must be clearly **documented in the radiology report**, preferably in or immediately following the Impression section of the report or as an addendum if the report was finalized before communication is complete. Documentation must contain the following information:

- a. Name of the **communicator**
- b. **Date and time** reported
- c. Name of **recipient** of the notification

Sample statement: *"Critical findings were communicated by Dr. Radiologist to Dr. Surgeon at 5 PM on Wednesday December 15th, 2005"*.

6. The Radiology Department will monitor and measure compliance with the policy [Note 3]

Notes:

1. Prompt Reading and Signing of Reports: Departmental policies regarding interpretation and signing of diagnostic radiology reports are as follows:

A. Interpretation:

I. Non-ED Studies:

1. Monday-Friday: Imaging studies that are finished (performed, completed in IDXrad, AND available in PACS) by 5:30 pm will be read by a staff radiologist on the day they are performed.
2. Saturday/Sunday/Holiday: The on-call staff for each section will come in to the department on each weekend day and holiday to read out all outstanding studies, assuring that all studies have a final interpretation within 24 hours of when they are performed. The on-call staff must be beeper-accessible at all times for consultation.

II. ED Studies:

All studies will be read by a trainee or staff radiologist within 1 hour of when they are performed. If the initial reading is by a trainee and there is a finding that requires intervention, the study will be read by a staff radiologist prior to the intervention. In all cases, the study will be read by a staff radiologist within 3 hours.

B. Signing: Each staff radiologist should have a median report signing time (i.e., time from report transcription to signing [P-to-F time]) of <8 hours, and should sign at least 80% of reports in <16 hours.

2. Escalation Process to Assure Timely Communication:

Inpatients, and outpatients cared for by BWH physicians: Successful communication of critical/discrepant results should always be achievable within the required timelines, since a covering physician or member of the patient care team will be in-house or accessible by page. In the **RARE** event that there is **red alert** and no member of the care team can be reached within the 1-hour timeline, the attempt to communicate should proceed according to the following **escalation process**:

- a. Referring MD/covering MD/house-staff/ member of care team
- b. Attending MD
- c. Chief of service
- d. Department chair
- e. Chief Medical Officer [Andrew Whittemore, MD] for inpatients, Associate Chief Medical Officer [Robert Goldszer, MD] for outpatients

Outpatients cared for by a non-BWH physician: If the patient's physician or other care team member cannot be contacted, the patient should be contacted and directed to go the BWH ED (or the nearest ED) for red/orange alerts and to follow up with his/her physician for yellow alerts.

3. Monitoring Compliance With the Communication Policy: In order to measure departmental compliance with this communication policy, we will conduct a periodic review of reports. Specifically, we will print out one day's reports every other month, and each section head (or his/her designee) will review each of the section's reports and assign each to one of the following categories:

- Result was critical/discrepant and communication timeline met policy requirements
- Result was critical/discrepant & communication timeline did not meet requirements
- Result was critical/discrepant but no communication was documented
- Result was not critical or discrepant

The department will tabulate the results of this review and will take actions to continually improve our performance as needed. The data will be shared with the hospital patient safety office, in compliance with JCAHO requirements. The first review will be in February 2006, followed by March 2006 and every other month thereafter (May, July, September, etc.).

In addition to this periodic review, all complaints related to communication of critical radiology results will be investigated, and necessary actions will be taken for continuous quality improvement.

Andetta Hunsaker, MD
Ramin Khorasani, MD, MPH
Peter Doubilet, MD, PhD