

## **ANCR workflow for Emergency Radiology (Rev 2/1/2019)**

This document is intended to clarify and standardize the use of ANCR in our daily workflow.

All critical results should be communicated via ANCR as follows:

**Red ANCR:** Findings that are **potentially immediately life-threatening** (e.g aortic transection in trauma, brain herniation). Requires immediate, interruptive “face-to-face” or “telephone” contact in less than 1 hour.

**Orange Alert:** Findings that could result in mortality or significant morbidity if not appropriately treated **urgently**. Requires “face-to-face” or “telephone” contact in less than 3 hours. This encompasses the vast majority of our critical results communications in the ER, and should be used for anything that needs to be communicated to the team to actively guide management during the ER visit.

**Yellow Pager Alert:** Findings that could result in mortality or significant morbidity if not appropriately treated but are not immediately life-threatening or urgent. Requires “face-to-face,” “telephone,” or other verifiable contact. In the ER, this should be used only for incidental findings that need to be communicated to ensure appropriate followup. We do NOT use the yellow email alert in the ER, as all communications must be made to the active care team on shift in the ER.

**Green ANCR:** Beginning February 4, 2019, we will begin to pilot use of this status to provide closed loop actionable communication of “negative” scans, intended to document loop closure and to enable disposition decisions to be made based on negative scan results.

### **Expectations for trainee’s sending ANCR communications**

- Trainees are expected to resolve ALL open ANCR statements before leaving at the end of their shifts (even yellow ANCR).
- ANCR statements should only be sent if the trainee is highly confident in the findings. If there is any uncertainty, imaging should be reviewed with the attending prior to sending the ANCR statement.
- For patients likely to undergo definitive intervention on the basis of their imaging findings (e.g. Surgery, IR, medical therapy for ectopic pregnancy...), ANCR statements should not be sent until there has been attending review of the imaging. Trainees should seek out their attending without delay in these cases in order to rapidly confirm and communicate these imaging results.
- All exams flagged as ‘stat’ and ‘ready for discharge’ will appear in red color on our Centricity worklists, and should be prioritized both for review and for closed loop communication as soon as possible, including use of Green ANCR for negative exams.
- Preliminary results for scans undergoing live monitoring at the CT console by a radiologist together with the care team (i.e. code stroke, trauma panscan, high risk aortic dissection accompanied by the care team) are typically communicated live to the care team. These communications should be documented in real time via ANCR (from the adjacent computer), including use of Green ANCR for negative scan results. Additional findings

identified during full scan review on PACS should then be documented with a subsequent ANCR communication.

**Emergency Radiology definition of which trainees are authorized to send ANCR communications prior to attending review:**

- ERad fellows after February 1, unless otherwise instructed by the fellowship program director after consensus of the ERad attending group.
- 2<sup>nd</sup> year or later residents on their NightFloat rotations, unless otherwise instructed by the ERad residency education liaison.
- Junior residents prior to their NightFloat rotations should NOT send ANCR communications prior to attending review.
- Even for the trainees delineated above, ANCR communications should ONLY be sent prior to attending review if the trainee is highly confident in their interpretation. If not, the trainee should seek out their attending for review in order to confirm and communicate relevant findings expeditiously.

**These ANCR expectations have been communicated to our Emergency Medicine colleagues:**

- **All received ANCR communications should be considered actionable.**
- For patients likely to undergo definitive intervention on the basis of their imaging findings (e.g. Surgery, IR, medical therapy for ectopic pregnancy...), ANCR alerts will not be sent until there has been attending review of the imaging.
- Beginning February 4, 2019, ANCR alerts sent by a trainee prior to attending review will indicate “not yet reviewed by an attending.” Emergency Radiology will internally manage which trainees have been approved for these communications. At any time, if there is a discordance between the communicated result and the clinical scenario, please readily consult with the attending radiologist prior to disposition.
- Preferred workflow for ordering exams in Epic should include use of the ‘stat’ and ‘required for discharge’ statuses in these circumstances:
  - ‘Stat’ designation’: While all ED cases are considered urgent, this should only be used to represent true clinical stat cases (e.g. Major trauma, code stroke, code aorta activations, other truly critical scenarios).
  - ‘Required for discharge’: This designation should be used when the results of the imaging are expected to directly impact the ability to discharge the patient rapidly from the ED (either to home or inpatient admission), such as front-end patients or other situations where the imaging result is truly the bottleneck to opening a bed for another patient.
  - These exams will be prioritized for exam completion and radiologist interpretation and will result in closed loop communication of results (whether critical result or normal examination) using relevant ANCR alerts (red, orange, yellow or green).
  - Use of these designations will be monitored for appropriateness. Abuse will result in system breakdown, because prioritization of these exams will by necessity delay the remainder.

- Beginning on February 4, 2019, we will begin use of a new Green ANCR alert, which will allow closed loop actionable communication of “negative” scans. Positive critical results will continue to be communicated via the existing red, orange, and yellow ANCR pages.
- For potentially inappropriate STAT or “Required for Discharge” orders or issues, the radiologist will generate a Worth Another Look ‘consult’ to Dr. Heidi Kimberly (with cc to Drs. Jennifer Uyeda and Ramin Khorasani), who will investigate each case and address as needed with the ordering provider and/or the radiologist.
- All documented communication will use closed loop communication mechanism\* (ANCR).
  - Critical results: use Red/Orange/Yellow
  - Non-critical results-use new Green ANCR. (see attached tip sheet)
  - To ensure transparency, resident/fellow will document in ANCR if attending review has not yet occurred (see attached tip sheet).
  - The timestamp when the ANCR alert is sent and acknowledged will be used to measure the timeliness of the closed loop actionable communication.
- We will continue to monitor performance measures and feedback and make any needed adjustments.