STAT Radiology Orders

- STAT comes from the Latin word, statim, meaning immediate
- Overuse of STAT orders is widespread and is a patient safety issue because true emergencies can be delayed
- The Joint Commission requires hospitals to have a written STAT policy and to ensure closed-loop communication of STAT examination results
- In order to minimize inappropriate use of STAT radiology examinations, Mass General is changing the physicians order entry (POE) process for ordering STAT examinations
- All patients who need STAT exams must be transported by medical staff to the designated scanner (with the exception of portable examinations)

S

STAT or stat is an abbreviation of the Latin word, statim, which means immediate. It should be used only in cases of medical emergency when ordering radiology examinations but that is not currently the case. Ordering STAT appropriately is important because STAT orders take precedence over all current and pending work and require an interruption of routine radiology operations. We need to ensure that medical emergencies are dealt with as rapidly as possible so that the patient receives the best possible care in a time-critical fashion but our current inappropriate use of STAT ordering is preventing that from happening.

Unfortunately, the term STAT in many instances has become synonymous with a request for imaging as soon as possible. It has also come into common usage in a variety of other circumstances, including administrative needs (such as pre-discharge) and requirements for the results of a radiology examination to be available at a certain time (such as morning or evening rounds). Indeed, it has become the norm to order STAT examinations in some units at the Massachusetts General Hospital, with as many as 65-75% of all examinations being designated as STAT orders. On one recent day at the hospital, there were 80 pending STAT orders for CT alone. We believe that the number of true STAT orders is only one or two per day. As a result of this overuse, the designation “STAT” cannot be used by Radiology to prioritize cases. This means legitimate STAT orders are not necessarily done before others, which may compromise patient safety.

Therefore, it is important to be aware of the meaning of the word STAT and to use it appropriately. The Joint Commission requires hospitals to have a written policy on how STAT examinations are handled and to ensure that there is closed loop communication of the results of STAT orders. It is also important to recognize that malpractice lawyers are aware of the meaning of STAT and that there have been lawsuits because STAT orders have not been carried out in an timely fashion.

Overuse of STAT orders is not limited to Mass General. For example, a two-week survey of all portable chest examinations at the University of Minnesota Medical Center showed that 74% were ordered as STAT examination. The authors described their experience in attempting to examine STAT patients only to find that they were not in their rooms, were in the shower, or were eating breakfast. They also observed a number of administrative STAT orders, made because the ordering physician wanted the study done immediately because he was leaving for the day or because he wanted the results before morning rounds.
One possible explanation for the overuse of STAT is the uncertainty of knowing when a routine examination may be completed. The University of Minnesota publication reported that the publication of the typical response times led to a further decrease in the number of STAT orders over that which had already been achieved in an educational effort to referring physicians.

In addition, a recent pilot program in the medical intensive care unit (MICU) at Mass General has provided evidence that the ability to schedule cases at specific times has a dramatic effect on the rate of STAT orders, which decreased from 65% to 14%. This pilot program was one of the initial steps in converting the POE system to a Radiology Order Entry (ROE) system, similar to that used for outpatient scheduling. Ultimately, this will permit scheduling of imaging examinations across the institution. However, full implementation will take several years. Meanwhile, the POE system is being upgraded to improve on the current system of ordering radiology examinations.

**Changes in STAT Ordering on POE**

Starting on Nov. 9, 2010, the POE system will be updated with the goal of avoiding inappropriate use of STAT orders (Figure 1). In order to ensure that patients who truly need emergency radiology examinations receive them in a timely fashion, Mass General Imaging has defined a medical emergency as a patient who is so ill that he or she cannot wait for routine transport. This means that the patient must be transported by medical staff for STAT radiology examinations.

The ordering pages on POE will all offer the options of Routine, STAT, or Other (Figure 2). The routine option will state the typical turnaround time for that examination. For example, a routine head CT examination is typically performed within four hours, while a routine head MRI/MRA is performed within 24 hours. Routine portable radiography is typically performed within one hour.

Whenever anyone attempts to order a STAT examination on POE, a pop-up window will appear instructing the requestor to call the Radiology STAT Emergency Line at 617-726-3050. A phone call to this number (which will be manned 24 hours per day, 7 days per week) will reach a member of the department who will listen to the reasons for ordering a STAT exam, authorize the STAT examination if appropriate, and give instructions on where to take the patient for imaging. It should also be noted that all STAT examinations will automatically be designated for STAT interpretation and, therefore, there will no longer be a "STAT read" option on POE. Patients who are denied STAT status will be placed in queues, as they are now, and prioritized on the basis of information provided about each individual case.
Clicking on the "Other" option will give the requestor the opportunity to provide additional information that will help department staff prioritize the examination. Such information may concern the pending discharge of a patient, a request within a specific time frame or ASAP, or medical information. For example, this category (or routine imaging) could be used for patients who need imaging for line placement, which is not considered a medical emergency unless the patient is in respiratory distress.

**Further Information**

For further questions on the appropriate use of STAT orders, please contact Daniel I. Rosenthal, MD, Vice-Chairman, Radiology Operations, Mass General Imaging, at 617-726-7761.

We would like to thank, Daniel I. Rosenthal, MD, Gregg S. Meyer, MD, Senior Vice-President for Patient Safety, Massachusetts General Physicians Organization, and Timothy G. Ferris, MD, Medical Director, Massachusetts General Physicians Organization, for their assistance and advice for this issue.

**References**
