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Empowering Healthcare

Overcoming the Communication Challenges between Emergency and Radiology Departments to Improve Patient Care

Introduction

This white paper explores the importance of bridging communication gaps between emergency and radiology departments. Effective communication between hospital emergency and radiology departments is absolutely essential for timely and appropriate patient care. Having the right tools to manage closed-loop communication will save the radiology department time and money while improving patient care and reducing risk through reduced errors and better administrative reporting. McKesson's emergency room (ER) discrepancy tracking solution, Horizon Medical Imaging™ ER Discrepancy Tracking, drives efficiency by enabling the ER physician to easily communicate an opinion directly to the radiologist and enabling the radiologist to respond to opinions in an efficient manner. Additionally, the tool provides department heads with data to fulfill various regulatory requirements. As a result, the tool promotes efficiency within workflow and increases accuracy of patient care.

Background/Problems

What picture comes to mind when you hear or read the words "emergency room?" Some may have an image of crowded corridors, overworked healthcare staff, and overburdened ER physicians and nurses. In the high-stress environment of the ER, effective communication plays an essential role in delivering quality patient care. The need for effective communication is not limited to ER physicians and nurses. It also includes other departments with which the ER communicates. The radiology department, in particular, plays a key role by providing various imaging procedures and timely interpretation reports.

When a patient is rushed into the ER, physicians need to make immediate treatment decisions and document their decisions in a meaningful way for communication with other departments — including radiology. An ER discrepancy occurs when a radiologist makes an additional finding or disagrees with the ER physician's opinion. When discrepancies occur, it is crucial that they be communicated back to the ER physician in a timely fashion so that appropriate changes to patient care can be made. ER physicians may employ tools such as handwritten notes on patients' charts, scanned documents, audio clips or even McKesson's jot-pad feature. None of these methods, however, guarantees these notes will be reviewed promptly and properly by the radiologist.

Today, ER departments use a variety of methods to communicate and track communication related to patients. Some of these methods include simple paper-based processes and white boards. With paper-based processes, there is no way to track the radiologist's decisions. Oftentimes, someone needs to "scan in" the radiologist's response to the study in the picture archiving and communication system (PACS). It is hard to measure the

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success and efficiency of this essentially manual process — a process whose effective management requires frequent human intervention.

There are many instances when a radiologist's response does not reach the ER due to various hospital hardware malfunctions. Fax machine malfunctions and printer issues top this list. In such situations, radiologists generally get involved personally to deliver the response to ER counterparts, which clearly interferes with their established workflow and is not the best use of hospital resources. At the same time, frequent lack of feedback from the ER leaves radiologists uncertain about whether their response was appropriate.

Today, most hospitals use PACS to manage medical images, and it has become common practice for ER physicians to leave their opinion in the form of a voice clip. Due to background noise, however, the voice clip may not have been recorded properly. In these situations, radiologists may need to break from reading cases and try to follow up with the ER physicians to get an opinion.

Paper or manual processes are effective if ER staff follow established guidelines, which often does not happen. Additionally, paper or manual processes do not support compliance. For investigations into missing communications and patient treatment issues, the paper process does not provide an accurate audit trail of events and timelines. The fact that the paper and manual processes work on the honor system exacerbates these difficulties. Ultimately, it is hard to trace ER activities and even more difficult to produce information on data discrepancies that could be very valuable in identifying staff training and alignment needs. The manual process may appear simple, but in reality it is expensive to manage — especially in view of the staff needed to oversee it.

All of the problems noted above lead to poor patient care, staff dissatisfaction and departmental inefficiency.

Solution

Ideally, healthcare organizations need a solution that will enable automated, reliable, closed-loop communication between the ER and the radiology department. The solution should also provide a simple means of creating administrative reports on discrepancies to support regulatory and business improvement initiatives. Furthermore, the solution should be quick and easy-to-use, requiring minimal manual intervention so ER staff can focus on patient care, not following up results.

From the radiologist's point of view, the ER discrepancy tracking system should fit in with the familiar PACS-driven workflow. Switching applications, after all, interrupts the radiologist's workflow and is therefore counterproductive. Radiologists expect that an effective solution involve automatically distributing discrepancy reports directly to the ER physician through their preferred means.

An effective solution should also record communication between the radiology and emergency departments for audit purposes. Radiology or emergency department administrators should be able to extract reports for audit purposes as well as compliance with The Joint Commission.

To help downstream users, the radiologist should be able to classify discrepancies according to severity. There should be a means to quickly and visually differentiate severities clearly for any care provider who looks at the study or study list. This feature will help care providers to easily prioritize cases to deliver appropriate healthcare and would inevitably help ER physicians act appropriately to deliver the patient care required.

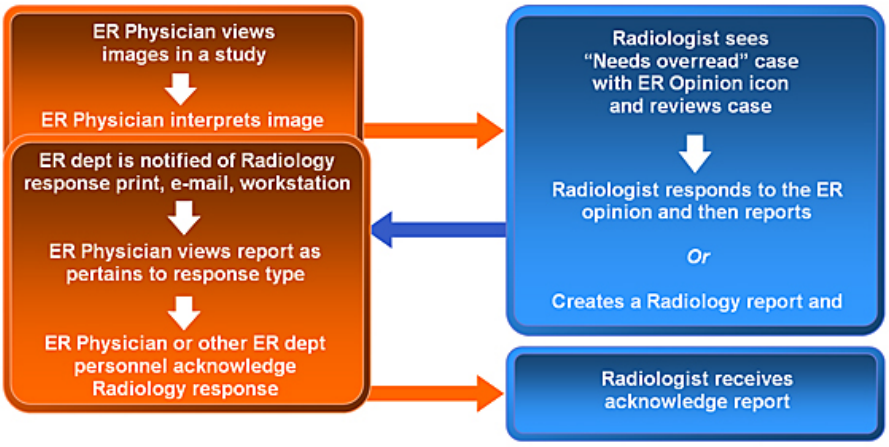
About the McKesson Solution: Horizon Medical Imaging™ ER Discrepancy Tracking

The Horizon Medical Imaging ER Discrepancy Tracking solution integrates tightly with McKesson's PACS system, Horizon Medical Imaging™, so ER physicians require minimal effort to create study opinions. Moreover, rules are built-in to prevent duplicate reading and to remind physicians to create opinions and respond to opinions. Electronic tracking of interdepartmental communication enables the hospital to demonstrate compliance with The Joint Commission and other regulatory requirements.

Since the ER is a time-sensitive environment, the McKesson solution helps physicians create an opinion for a study in three simple steps. Furthermore, the system displays predefined preliminary templates for ER physicians to create an opinion based on study demographics. For example, for a study with head images, the system only shows the templates related to the head and leaves out irrelevant templates. With efficient and intuitive tools – such as report templates for common exam scenarios and smart macros to autopopulate patient details – opinion reports are created faster and more accurately while allowing them to be shared across the enterprise.

The study list column indicates (with a special icon) the studies with ER opinions, making it easy for radiologists to notice those studies. When the radiologist opens the study, the system presents three different options to classify the ER physician's opinion. Options available to the radiologist include "Agree," "Minor Discrepancy" and "Significant Discrepancy." A one-click response saves the radiologist significant time. Each classification has a different icon attached for an ER physician, or any other user of the system, to quickly identify the discrepancies. The McKesson system is flexible enough that discrepancy responses can be distributed based on the radiologist's classification. Radiologists avoid interrupting their workflow with phone calls and are not required to make phone calls to the ER department for follow-ups.

At the same time, ER Discrepancy Tracking uses rules to prevent duplicate reads in the reporting workflow. ER physicians receive a warning message when attempting to create an opinion report for which a preliminary or final radiology report already exists.



Workflow in McKesson's ER discrepancy tracking solution.

The Horizon Medical Imaging ER Discrepancy Tracking solution allows ER physicians to render opinions more easily and radiologists to respond quickly and accurately.

In addition, a rule exists to ensure that an ER physician cannot create an opinion if another ER physician has already created one. On the other hand, ER physicians have the ability to edit previously saved, "same-user" opinions (resulting in multiple opinion reports) until there is a response from the radiologist. All opinion reports are automatically recorded under the patient's name in chronological sequence and are viewable by the radiologist. The radiologist responds to the most current opinion report.

The system also provides acknowledgement from the ER of the radiologist's response. ER confirmation ensures that discrepancies are received and that patient care is altered in a timely fashion, improving patient safety and reducing liability.

The ER Discrepancy Tool tracks all communications between two departments electronically and provides a host of reporting tools to ensure compliance with The Joint Commission and other emerging regulatory requirements. Through Administrative Reports in Horizon Medical Imaging, the entire ER workflow can now be tracked and reported.

A response from radiology can be distributed via printer or by e-mail, and multiple e-mail addresses can be configured. In this manner, the ER program director or manager can receive all discrepancies to ensure they get proper follow-up.

Conclusion

Effective communication between hospital emergency and radiology departments is a vital part of quality patient care, and efficient tools to manage discrepancies between these departments is one way to ensure that communication flows smoothly. The Horizon Medical Imaging ER Discrepancy Tracking solution allows ER physicians to render opinions more easily and radiologists to respond quickly and accurately. This system provides department heads with relevant data to fulfill various regulatory elements, promotes efficiency within workflow and ultimately increases the quality of patient care.

McKesson Provider Technologies

5995 Windward Parkway
Alpharetta, GA 30005

http://www.mckesson.com