Developing an Efficient Tool for Registering the Communication of Radiological Critical Findings

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Background

Hospital Sírio-Libanês is a high-end facility that belongs to a philanthropic healthcare institution, founded in 1921, and is recognized as an important oncologic reference for Brazil and Latin America. At this moment we’re doubling our capacity, with 727 beds, more than 3,500 doctors and 6,000 employees.

Our radiology department is responsible for the imaging of inpatients, outpatients and emergency, which counts for about 500,000 examinations per year.

Considering both the current scenario of Brazilian healthcare and worldwide efforts for a more patient-centered care, radiologists responsibilities are increasing, in terms of more adequate and accurate diagnosis, speed, security and efficiency, according to the guidelines of the American College of Radiology (1).

By the means of implementing a system for registration of radiological critical findings communication in our facility, it is possible to evaluate that the tool is efficient in promoting patient assistance and secure communication of relevant findings to referring physicians.

Evaluation

Before deployment in January 2015, the only official method of communication of a critical radiological finding was phone calls. As we have no registration or recordings of these calls, it was not possible to measure, manage and monitor service quality indicators. That scenario didn’t comply with international goals for patient safety, in accordance with the requirements by accreditations as the Joint Commission International (4) and recommendations of the American College of Radiology (1).

Since implementation, we have 123 records of critical findings in the system. This corresponds to 0,05% of the total of exams in the period (0,002% radiographies, 0,008% MRI, 0,027% CT and 0,012% sonograms.

All findings were categorized by color and priority level versus the notification time: Red - serious findings (maximum notification time of 30 minutes); Yellow - relevant critical findings (need to be reported within 24 hours); Green - relevant clinical information without predefined time. Among this classification, we observe that 45,45% of reported findings were classified as Yellow, 28,10% as Red and 26,45% as Green (Figure 1).
The values show that there is 81% of success (notifying the referring physician of a critical finding) when sending e-mail and SMS, and an increase of over 1000% in the records if we compare the first month of implementation (2 critical findings) to the current scenario (24 critical findings/month). Importantly, 92% of records are being registered in accordance with the accorded service level agreements for notification time (Figure 2).
In the first month of after implementation, only two radiologists notified a critical finding using the system. Six months later, adherence increased four-fold (37 radiologists using the system for communicating critical findings). This number is higher than the adhesion percentage of the radiologists at Massachusetts Hospital Association (MHA) which was 90% after an awareness campaign findings registration policy that institution that lasted four years.

Our perception is that the number of registrations of communication after a radiological critical finding is increasing. We still face significant underreporting, yet not measurable. We will focus on developing and implementing an effective and efficient tool to provide data for management stakeholders.

Discussion

Before deployment in January 2015, the only official method of communication of a critical radiologic finding was phone calls. As we have no registration or recordings of these calls, it was not possible to measure, manage and monitor service quality indicators. That scenario didn’t comply with international goals for patient safety, in accordance with the requirements by accreditations as the Joint Commission International (4) and recommendations of the American College of Radiology (1).

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Conclusion

We can conclude that we implemented an effective tool to promote communication and patient care. Service level agreements accorded between stakeholders are being accomplished, adherence to the tool by radiologists is increasing and the number of proper registered critical findings communication is augmenting, thus supporting the high standards of quality adopted by our institution.

It’s also underway the development a monitoring tool that allows the quantification of underreporting, as
the official indicators considered by the Quality department of our hospital are both the record times of findings and the number of underreporting.

References


Keywords

Communications, Radiologic Communication, Communication of Diagnostic Imaging, Critical Findings