Background

Recent guidance emphasises the importance of highlighting studies with significant or abnormal findings to requesting clinicians. Electronic critical alert systems are a key responsibility of all trusts or equivalent healthcare organisations.

Pulmonary embolism represents a significant cause of morbidity and mortality in the hospital setting. It has been demonstrated that timely anticoagulation in cases of pulmonary embolism improves outcomes.

Methods & Objectives

- Our objective was to assess whether critical report labelling was appropriately performed and if this process had a clinical impact.
- Retrospective Study between August 2015 and April 2016
  - All positive PE reports were gathered to identify the percentage of positive studies being critically labelled
  - Treatment speed for patients with PE, labelled vs. unlabelled, was collected
- Monthly collection of labelling statistics
  - 1st Intervention: Presentation at Radiology Audit Meeting (March)
  - 2nd Intervention: Internal consultant communication re: labelling
- Junior doctors were asked for their opinion of Critical Report Labelling

Questionnaire

"Is the significant or abnormal text a useful feature in Radiology Reports?"
100% stated it was useful

"Do you pay more attention to reports with the text?"
88.2% stated they paid more attention to these reports

"Do you feel it is vital in CT Pulmonary Angiograms positive for Pulmonary Embolism?"
88.2% stated that they feel it is vital for Pulmonary Embolism

"Do you pay more attention to 'Red Text' EPR entries?"
94% paid more attention to Critical Flowsheet Entries in EPR

Results

CTPA with PE: Critical Labelling Percentage

<table>
<thead>
<tr>
<th>Audit Period</th>
<th>Intervention 1</th>
<th>Intervention 2</th>
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</thead>
<tbody>
<tr>
<td>Aug - April</td>
<td>Unlabelled Pulmonary Embolisms</td>
<td>Critically Labelled Pulmonary Embolisms</td>
</tr>
<tr>
<td>May</td>
<td>Unlabelled Pulmonary Embolisms</td>
<td>Critically Labelled Pulmonary Embolisms</td>
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<tr>
<td>June</td>
<td>Unlabelled Pulmonary Embolisms</td>
<td>Critically Labelled Pulmonary Embolisms</td>
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<tr>
<td>July</td>
<td>Unlabelled Pulmonary Embolisms</td>
<td>Critically Labelled Pulmonary Embolisms</td>
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Does labelling make a difference?

410 patients received a CTPA between August 2015 and May 2016.

We found that those with critical labelling were anticoagulated significantly faster (time from report authorization to anticoagulation administration, p=0.0249).

There was no significant difference in these two groups when comparing:
- Nurse staffing levels
- Out of hours vs. daytime hours
- Patient length of stay
- Request to Scan
- Scan to authorization of report

Conclusion

- Initially report labelling was not being appropriately performed. Compliance with guidelines improved consistently when this was highlighted
- The research identified that labelling appears to have a significant impact on clinical treatment speed
- Significant improvement has been made in critical labelling within the department, which will have led to faster treatment for our patients
- Junior doctors overwhelmingly supported the use of labelling in PACS and EPR

References

1. Royal College of Radiologists. Standards for the communication of critical, urgent and unexpected significant radiological findings. London; 2012.