COXHEALTH PARTNERS WITH VRAD

Community Hospital Significantly Improves Turnaround Times for Trauma Cases with VRad’s Patent-Pending Trauma Protocol for Imaging

Background
CoxHealth is a not-for-profit health system of five hospitals serving a population of 565,000 around Springfield, Missouri. CoxHealth receives approximately 204,000 emergency, urgent care, and trauma visits annually.

Its flagship hospital, Cox Medical Center South, is a 596-bed hospital, full-service care facility and a Level I Trauma Center. It is one of only 10 Level I Stroke Centers in the state, and the only one in southwest Missouri. It has been a VRad client since April 2014.

Department Challenge: Improve Workflow and Turnaround Times for Trauma Cases
CoxHealth must maintain certain response times to treat victims of physical trauma, including the prompt availability of specialty care that includes radiology services, according to the American Trauma Society.1

“Our original response times were appropriate and within guidelines, but there is always room to improve,” said Laura Murney, M.Ed., BS, RT(R), Assistant Administrative Director of Radiology Services at CoxHealth. “This is regular feedback we receive from the ED. The more information you have and the quicker you have it, the better decisions you can make for the patient.”

Solution: New Urgency Level for Trauma Cases with Patent-Pending Study “Unbundling”
In January 2015, Cox South implemented VRad’s complimentary “trauma protocol” urgency level that designated trauma cases with distinct prioritization and turnaround times (TATs).

Now when Cox South assigns “trauma protocol” to a specific case using VRad’s online Order Management System, VRad’s patent-pending technology automatically “unbundles” studies from that case; assigning each body region to the appropriate radiologist to be read concurrently:

• Neuro: head, face, orbits, cervical spine, and neck (i.e., anything above the clavicle)
• Body: chest, abdomen, pelvis and thoracic/lumbar spine
• Upper and lower extremities

“The average time from when our imaging department receives the order to when the ED receives the final reports from VRad dropped by 10 minutes since implementing VRad’s Trauma Protocol. That’s a big improvement and our emergency physicians have definitely noticed.”

Laura Murney, M.Ed., BS, RT(R)
Assistant Administrative Director, Radiology Services
CoxHealth

For information on VRad’s Trauma Protocol, call 800.737.0610 or go to www.vrad.com.
The cases are prioritized at the top of the worklists of the assigned VRad radiologists who are notified which colleagues are reading the other body regions for the same patient, enabling real-time collaboration at the point of care. The radiology reports for each body region are sent to the facility as soon as they are completed allowing treatment to begin as quickly as possible. This improves the overall quality of the diagnostic process and care by providing faster results for the ED than if such studies were routed to just one radiologist. Finally, VRad calls the ED with critical findings, with priority being placed on head/cervical spine studies.

“The average time from when our imaging department receives the order to when the ED receives the final reports from VRad dropped by 10 minutes since implementing VRad’s Trauma Protocol. That’s a big improvement and our emergency physicians have definitely noticed,” said Murney. “We also receive fewer calls from the ED checking on the status of imaging reports. We didn’t change anything in the Emergency Department, yet they gained the benefits of automating Class 1 and Class 2 trauma cases. We improved our workflow by removing the manual part of the process, which expedited the process of getting the right images to the right radiologists.”

Murney found the new protocol unique yet logical in its approach. “CoxHealth has ED trauma teams with specific expertise who work together to assess and treat severely injured patients. It follows that VRad would bring a similar multidisciplinary approach to collaborate on a trauma case. Having radiologists with the right expertise available to read specific images only serves to improve the quality of care and response times – the data we have bears this out.”

Benefits: Turnaround Times Improve Significantly to 52 Minutes
CoxHealth experienced significant improvements in TATs for Class 1 and 2 trauma cases.

- In the period from October – December 2014 (just prior to implementing the new VRad Trauma Protocol), the average TAT for Class 1 and 2 trauma cases averaged 62 minutes.
- In January 2015, after implementing VRad Trauma Protocol, the average TAT for Class 1 and 2 trauma cases averaged 52 minutes (a 16% improvement when compared to the period prior to when the protocol was introduced).

<table>
<thead>
<tr>
<th>Average TAT for Class 1 and 2 Trauma Cases</th>
<th>Average TAT (minutes)*</th>
<th>Improvement</th>
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</thead>
<tbody>
<tr>
<td>Using VRad Stat Emergent urgency level</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Using VRad Trauma Protocol urgency level</td>
<td>52</td>
<td>16%</td>
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</tbody>
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*Timeframe: From when imaging department receives order to when ED receives final report from VRad

“The ED appreciates the faster response times and swift phone calls when there is a critical finding,” said Murney. “They also expect Radiology Services to be there at all times and work as fast and at the same level as they do. All of us want to do the best we can to care for the patients who need immediate care the most.”

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1 http://www.amtrauma.org/?page=traumalevels