The Impact of Pre-Transfer CT Scans on Pediatric Trauma Outcomes

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CT Prior to Transfer

  - 9% repeat CT
  - Increased field time (5:21h vs. 4:14h)
- Cook et al (2010)
  - 18% repeat ABD CT
  - 5 mSV in additional radiation
  - $3055
  - 66% of CT met criteria for immediate transfer
Patients

• 2009-2013
• 246 patients
• Mean age 12.4 ± 5.4 years
• 64% male
• 128 C/A/P CT prior to transfer
  • 60% met criteria for immediate transfer
  • 14% of CTs were repeated at PTC
• 118 C/A/P CT upon arrival
<table>
<thead>
<tr>
<th></th>
<th>Pre-transfer CT</th>
<th>Post-transfer CT</th>
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</thead>
<tbody>
<tr>
<td>ISS</td>
<td>14.5 ± 9.5</td>
<td>12.4 ± 8.9</td>
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<tr>
<td>Time to arrival (h)</td>
<td>5.3 ± 3.6</td>
<td>3.5 ± 2.5</td>
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<tr>
<td>Surgery</td>
<td>7%</td>
<td>1%</td>
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<tr>
<td>ICU LOS (d)</td>
<td>1.9</td>
<td>1.9</td>
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<tr>
<td>Total LOS (d)</td>
<td>5.3</td>
<td>6.5</td>
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<tr>
<td>Mortality (%)</td>
<td>3%</td>
<td>3%</td>
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</tbody>
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Bold indicates p<0.05
Future work

• CT use at our regional referral hospitals
  • Who is getting pre-transfer CTs?
  • Who isn’t transferred b/c of scan results
Conclusions

- Large number of blunt trauma patients undergo CT prior to transfer

- CT prior to transfer delays definitive care and results in an increase of scans

- This delay does not appear to impact outcomes
Acknowledgments

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Questions

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