How should we measure ambulance service quality and performance?

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Why is it difficult?

Lack of consensus about what to measure

Lack of data

Difficult to measure ambulance quality and performance
• PhOEBE is a 5 year research programme designed to addresses these issues
• Linked ambulance, hospital and national mortality routine dataset
• Evidence review and consensus methods with a range of patients, public and professional stakeholders to develop potential pre-hospital ambulance performance indicators
What should we measure?

- Delphi study (Dec 2013 – Feb 2014) – 2 rounds
- Ambulance clinical, operational and management staff, national ambulance research and clinical audit groups, NHS service commissioners, emergency medicine physicians, academic research groups
- 67 measures generated from 2 systematic reviews and a consensus event:
  - categorised into 3 groups
  - patient outcomes (n=25); whole service measures (n=32); clinical management measures (n=10)
- Is this measure a good reflection of the quality of care/service provided by the ambulance service and is likely to be a good indicator of the quality of the 999 ambulance service care pathway – 9 point Likert scale
### Results

**Measures reaching consensus as good measures of quality of care**

<table>
<thead>
<tr>
<th>Measure description</th>
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<tbody>
<tr>
<td>Proportion of patients who report pain who are given pain relief</td>
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<td>Proportion of all 999 calls referred for telephone advice only re-contacting the ambulance service within 24 hours</td>
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<td>Time of call to time of definitive care</td>
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<td>Proportion of category A calls correctly identified as category A</td>
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<td>Number of patient safety incidents reported as a proportion of all requests for 999 ambulance care</td>
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<td>Proportion of all cases with a specific condition who meet the established criteria for transfer, who are transported to an appropriate specialist facility, for example a heart attack, stroke or major trauma centre</td>
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<td>Proportion of cases that comply with end of life care plans where these are available</td>
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<tr>
<td>Proportion of all cases with a specific condition who are treated in accordance with established protocols and guidelines, for example stroke, heart attack, diabetes, falls</td>
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• Our expert panel reached consensus on a set of measures that better reflect the whole ambulance population

• Can be measured beyond the pre-hospital component of care using routine data with appropriate permissions

• Provide more useful data to ambulance services and highlight where changes can be made to improve both performance and patient experience

• For example, if timely definitive care is provided, accuracy of triage decisions and effectiveness of patients reported pain management

• The next step in our project is to build a risk adjusted predictive model for these potential measures using the linked dataset
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