Background
Ambulatory lung biopsy, pioneered by the ‘Barnet model’ is being encouraged by NHS England in a bid to expedite lung cancer diagnosis and improve care and cost efficacy. As part of this model, patients with a pneumothorax requiring chest drain are discharged home negating the requirement for an inpatient stay.

Trusts of the Thames Valley aimed to evaluate current practice against national standards and the Barnet ambulatory model to evaluate the value of introducing a new ambulatory pathway.

Methods
As per standards

Results

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Median age 72 yrs (SD 10.5 yrs)</th>
<th>Median lesion size 3.0cm (SD 2.25cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complication rates</td>
<td>Pneumothorax occurred in 19.8% cases (69/349)</td>
<td>Chest drain was required in 4% (14/349)</td>
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<td></td>
<td>Pneumothorax prolonged hospital admission in 4% (14/349)</td>
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</table>

Conclusions

Findings in line with national standards but lower rates of chest drain insertion when compared with Barnet model; infrequent chest drain insertion resulted in infrequent admission, therefore potentially only a modest benefit of ambulatory pathway introduction.

Concern that with the more rural nature of the Thames Valley there are fewer patients suitable for discharge with drain (home not within a safe catchment area).

Nevertheless, lower threshold for chest drain insertion may encourage further sampling and thus improved diagnostic rates.

Overall diagnostic rates Adequate sample achieved in 90.5% cases

Comparisons against standards

<table>
<thead>
<tr>
<th>National standards</th>
<th>Barnet model</th>
<th>Thames Valley</th>
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</thead>
<tbody>
<tr>
<td>PTX (drain)</td>
<td>26-54%</td>
<td>17.8%</td>
</tr>
<tr>
<td>PTX (admission)</td>
<td>4%</td>
<td>10.6%</td>
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</tbody>
</table>

Comparison with Barnet model:
↓ PTX rates
↓ rates of PTX requiring drain
↑ rates of PTX requiring admission
↓ rates of histological diagnosis

References

1st action plan
Trial ambulatory pathway at Oxford site