Background:
Small bowel NETs are the most common gastrointestinal NETs. SEER data analysis has demonstrated an increasing incidence (460%) of small bowel NET over the last 30 years (1). They commonly arise in the ileum often presenting late with metastatic spread. However, can also present acutely with small bowel obstruction or be identified co-incidentally. Over recent years formalized staging systems to help accurate staging of these tumours have been developed. Consequently studies have looked to identify whether stage of disease correlates with survival.

Furthermore, studies have looked to determine whether tumour grade using the criteria suggested by ENETS is predictive of survival.

Aims:
To retrospectively stage patients with known small bowel primary NETs from a single institution and determine whether survival is correlated with stage and grade of disease.

Methods:
One hundred and thirty-eight patients were identified as having a small bowel NETs from the Kings NET database.

Of these patients a complete dataset was available for 118.

The radiological, surgical and histopathology notes were reviewed to extract the relevant parameters. Due to the low number of patients with stage 2a and 2b disease these groups were combined together.

Also stage 3a and 3b were combined.

Statistical analysis was performed using Microsoft Excel and GraphPad Prism 5.1. Kaplan-Meier plots were constructed to determine survival.

Results:
Of the 138 patients analysed the median age was 61 years (range 24-84).

<table>
<thead>
<tr>
<th>Stage</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0</td>
</tr>
<tr>
<td>II</td>
<td>4</td>
</tr>
<tr>
<td>III</td>
<td>23</td>
</tr>
<tr>
<td>IV</td>
<td>91</td>
</tr>
</tbody>
</table>

Kaplan-Meier plots were constructed these demonstrated a significant difference in survival between patients with different stage of disease ($p=0.03$). There was no significant difference in survival between stage 2 and stage 3 tumours.

Grade of tumours
There were 46 patients with G1 tumours (Ki67 ≤2%) and 18 patients with G2 tumours (Ki67 3-20%).

There was a significant survival difference between G1 vs. G2 grade of tumours ($p=0.049$).

Conclusion
This study demonstrated a significant survival difference between tumour stage and survival. There was no difference in survival between stage IV and stage III and stage II disease. No difference between stage 2 and stage 3 disease, this in part could be due to the small study numbers for stage 2 disease.

There were no patients with G3 tumours (Ki67>20) for analysis. There was significant survival difference between G1 and G2 tumours.

References: