Small bowel neuroendocrine tumors (NETs) are rare and often indolent neoplasms. Chromogranin A is the most commonly used biomarker for NETs but has a high false positive rate due to the use of proton pump inhibitors (PPIs). Our group, the New Orleans Louisiana Neuroendocrine Tumor Specialists (NOLANETS), currently uses serial monitoring of Neurokinin A (NKA) as part of our tumor management protocol. We have previously shown that Neurokinin A levels predict survival in patients with Stage IV well-differentiated small bowel NETs.

### Hypothesis
We hypothesized that patients who underwent surgical cytoreduction and whose NKA levels remain elevated despite therapeutic intervention have a poor prognosis.

### Methods
Data were analyzed from patients with NETs of the small bowel, ileum, or jejunum who underwent surgical cytoreduction and who had serial plasma NKA values (Normal <40 pg/ml, InterScience Institute, Inglewood, CA).

Survival was measured from date of the patient’s first NKA level to either the date of death or end of study (June 1, 2017).

### Results
Serial plasma NKA values were collected in 267 patients. All patients underwent surgical cytoreduction and received other therapies as part of standard of care. Patients were sorted into 3 groups to evaluate survival based on their NKA level.

- **Group 1**: 157 patients had NKA levels that were continuously ≤40 pg/ml.
- **Group 2**: 78 patients had NKA values that increased transiently to >40 pg/ml but returned to ≤40 pg/ml prior to their most recent visit or date of death in response to treatment.
- **Group 3**: 32 patients had elevated NKA levels that remained >40 pg/ml until their most recent visit or date of death despite therapeutic intervention.

### Conclusions
Patients with small bowel NETs who have undergone surgical cytoreduction have high 2-year, 5-year, and 10-year survival rates.

Serial monitoring of plasma NKA is useful in identifying patients who have a worse prognosis and can indicate to physicians that immediate therapeutic intervention is warranted.