AIM

(1) To pilot extraction of clinical data from the Neuroendocrine Tumour Registry
(2) A retrospective analysis of responses to systemic chemotherapy (CT) and somatostatin analogue (SSA) in NET patients in the Auckland Region.

METHODS

There is currently no centralised record of NETs in New Zealand since many are not recorded in the National Cancer Registry. The NETwork! Project aims to address this by compiling a national database of patients with NETs.

Data was collected from the New Zealand Cancer Registry and ADHB pathology as part of a nationwide project on Neuroendocrine cancer. Clinical records of NET patients seen in the Auckland region from 1995-2013 were retrospectively analysed.

Classification of neuroendocrine tumours was defined as per WHO 2010 nomenclature; low grade (Ki-67 0-2%, mitotic count <2 per 10 HPF), intermediate grade (Ki-67 3-20%, mitotic count 2-20 per 10 HPF) and high grade (Ki-67 >20%, mitotic count >20 per 10 HPF).

Neuroendocrine tumours in the analysis included gastroenteropancreatic neuroendocrine tumours, extrapulmonary small cell carcinoma, large cell carcinoma, medullary thyroid carcinoma, Merkel cell carcinoma, paraganglioma and pheochromocytoma.

Treatment outcomes included best symptomatic, radiological and biochemical response.

Radiological response was defined as a reduction in size of ≥25% in the sum of 3 representative lesions (to attempt to identify any signals of molecular response).

Symptom response included improvement in performance status or cancer associated symptoms (e.g.carcinoid syndrome).

Biochemical response required a reduction of ≥30% in two consecutive measurements, at least 1 month apart (e.g.Cromogranin A).

RESULTS

169 patients were included in the analysis. Histological grade was unavailable in 21 patients (12.4%). Median time of follow-up was 83 weeks.

DISCUSSION

Despite NETs being relatively uncommon, the use of a registry enables collection of a large volume of information which can be used to evaluate clinically meaningful outcomes.

The radiological response to first line chemotherapy in our analysis of 43% is consistent with that of literature. There is lower radiological response to first line platinum- etoposide chemotherapy in intermediate grade NETs compared to high grade NETs (21% versus 53%), respectively.

When treated with SSA alone, partial or stable disease was seen in 10% and 67% respectively, comparable to that seen in the PROMID trial (2% partial and 66% stable disease at 6 months).

Limitations of the study include its retrospective analysis with a proportion of patients with unavailable histology or treatment response.

CONCLUSION

1. This study will serve as a pilot for future clinical data extraction from the NETwork Registry as the Registry expands to cover patients throughout New Zealand.
2. Combining this data, with similar data from across New Zealand, will create a large and clinically meaningful series that will help guide international best clinical practice.