# UKINETs Bitesize Guidance

**Management of Patients with Gastric Neuroendocrine Neoplasm**

## Diagnosis & Treatment Algorithm

### Type I (70%)
- **Clinical Features**
  - asymptomatic
  - small
  - multiple
  - found in fundus and body
  - mostly grade 1
  - malignant behaviour/metastasis rare
  - caused by achlorhydric hypergastrinaemia associated with pernicious anaemia and chronic atrophic gastritis

- **Diagnosis**
  - vitamin B12 (usually low)
  - Hb and iron studies (IDA common)
  - anti-parietal cell antibodies (usually positive)
  - fasting serum gastrin off PPI therapy (high)
  - +/- gastric pH measurement during endoscopic assessment (pH>4)

- **Management**
  - biopsy several of largest polyps and background stomach
  - consider removal of polyps > 10 mm in size (ESD or EMR), consider EUS and CT assessment prior to removal
  - surveillance OGD and screening for adenocarcinoma – biopsy background mucosa for dysplasia - every 1-2 years
  - Preferably stop PPIs– will further increase gastrin and little rationale for ongoing treatment

### Type II (10%)
- **Clinical Features**
  - rare
  - often small and multiple
  - grade 1 or 2
  - caused by hypergastrinaemia due to a gastrinoma (ZES) often as part of MEN-1
  - peptic ulcers
  - +/- diarrhoea

- **Diagnosis**
  - vitamin B12 (usually normal)
  - Hb and iron studies (IDA common)
  - anti-parietal cell antibodies (negative)
  - fasting serum gastrin off PPI therapy (high): substitute H2RA for 7 days, or do not stop PPI if felt high risk of peptic ulceration
  - +/- gastric pH measurement during endoscopic assessment (pH<2)

- **Management**
  - PPI +/- somatostatin analogues
  - identify and remove gastrinoma where possible
  - manage gastric polyps>1cm as per type 1 GNENs

### Type III (20%)
- **Clinical Features**
  - single
  - often > 2 cms,
  - may be ulcerated
  - usually grade 3 but some may be lower grade
  - not associated with hypergastrinaemia
  - malignant behaviour/metastatic disease common

- **Diagnosis**
  - biopsy
  - full staging with CT (+- somatostatin receptor scintigraphy)
  - FDG-PET

- **Management**
  - operable disease: surgical resection following principles of managing adenocarcinoma
  - lower grade tumours with no loco-regional spread (EUS): endoscopic removal by ESD (possibly EMR) may be considered
  - systemic therapies are required for inoperable disease, choice is dictated by grade e.g. platinum-based chemo for G3, SSRA +/- PRRT
References

1. ENETs consensus management of patients with gastroduodenal neoplasms. Delle Fave et al. Neuroendocrinology 2012;95:74-87
2. The investigation and management of gastric neuroendocrine tumours. Basuroy R et al. AP&T 2014;39(10)1071-84

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