

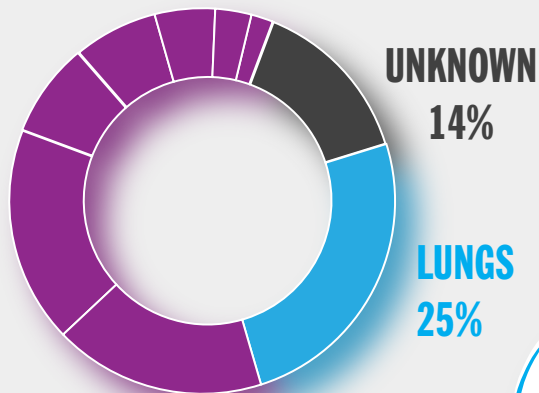
NEUROENDOCRINE NEOPLASMS (NENs)

NENs: A SPECTRUM OF HETEROGENEOUS TUMORS AFFECTING THE NEUROENDOCRINE CELLS (THE CELLS THAT RELEASE HORMONES INTO THE BLOODSTREAM).
NENs ARE CLASSIFIED AS :

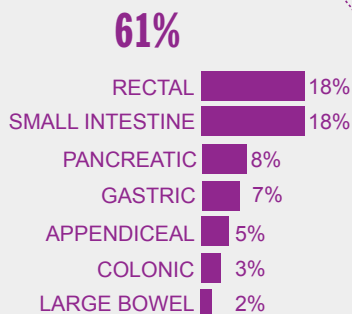
► **NECs:**
POORLY DIFFERENTIATED NEUROENDOCRINE CARCINOMA, DISPLAYING HIGH-GRADE MALIGNANCY.
E.G. LARGE CELL AND SMALL CELL CARCINOMAS.

► **NETS:**
WELL-DIFFERENTIATED NEUROENDOCRINE TUMOURS SHOWING EITHER BENIGN OR UNCERTAIN BEHAVIOR.
E.G. TYPICAL AND ATYPICAL CARCINOID.

INCIDENCE of NENs



GASTROINTESTINAL



DIAGNOSTIC & THERAPEUTIC CHALLENGES

- VARIETY IN:
 - CLINICAL PRESENTATIONS
 - TERMINOLOGY AND CLASSIFICATIONS
 - THERAPEUTIC OPTIONS/APPROACHES
- 60% ARE ADVANCED AT THE TIME OF DIAGNOSIS
- LIMITED PHASE III EVIDENCE FOR CHEMOTHERAPY
- 33 MONTHS MEDIAN PATIENT SURVIVAL WITH ADVANCED NET

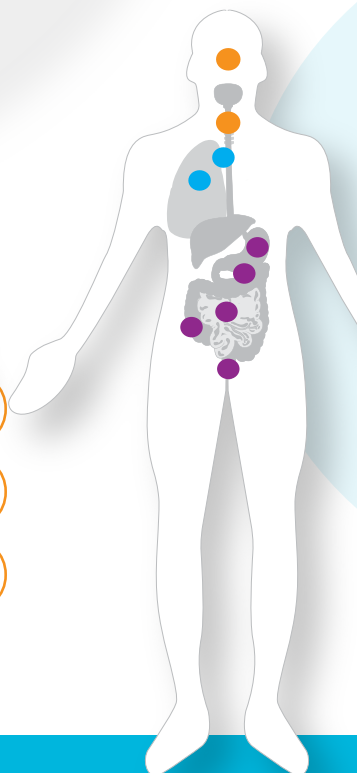
4 TYPES of LUNG NENs



- | | | |
|------------|--|--|
| NET | ► TYPICAL CARCINOID
ATYPICAL CARCINOID | ► . Less likely to metastasize
. Not associated with smoking
. Less aggressive |
| NEC | ► LARGE CELL CARCINOMA
SMALL CELL CARCINOMA | ► . More likely to metastasize
. Often associated with smoking
. More aggressive |

IHC MARKERS FOR SITE OF ORIGIN

-
- PITUITARY:** PIT-1, T-PIT, SF-1
 - PARANGLIOMA:** TH, GATA-3
 - PARATHYROID:** PTH, GATA-3
 - THYROID:** TTF-1, CALCA
 - THORACIC:** INSM1, CD56
 - PULMONARY:** TTF-1, POU2F3, SYP, INSM1, OTP
 - DUODENAL:** ISL-1, PDX-1, CDX-2
 - PANCREATIC & SMALL INTESTINE:** ISL-1, PDX-1, CDX-2
 - MIDGUT:** CDX-2, INA
 - HINDGUT/RECTAL:** SATB2, PEPTIDE YY, CDX-2, ISL-1
 - RECTAL:** PAX6, PAX8, SECC, INSM1



MARKERS FOR NENs DIAGNOSE IN TARGETED BIOPSIES



- CONFIRMATION OF NEUROENDOCRINE NATURE:**
CHGA, SYP, CD56, CD57, UCHL1, NSE
- CONFIRMATION OF EPITHELIAL ORIGIN:**
Cytokeratins AE1/AE3, CAM5.2, CK18, CK8
- GRADING AND STAGING:**
MITOTIC INDEX (MI), KI-67 LABELING INDEX (LI)

Fernandez CJ, et al. World J Gastroint Surg. 2021
Huang J, et al. Gastroent. 2020
Yao JC, et al. J Clin Oncol. 2008



WATCH THIS VIDEO
TO LEARN MORE ABOUT US

DISCOVER MORE
ATLASANTIBODIES.COM

FOR PRODUCT HIGHLIGHTS, LAB TIPS
AND INTERVIEWS READ OUR BLOG

WE ARE SOCIAL! FOLLOW US
@ATLASANTIBODIES

ATLAS ANTIBODIES

