Pancreatic Neuroendocrine Tumors
Islet Cell Tumors

- Pancreatic neuroendocrine tumors, also called islet cell tumors, are rare tumors that form from the hormone-producing cells in the pancreas called islet cells.
- Pancreatic neuroendocrine tumors account for **less than 5%** of all pancreatic tumors. They tend to grow slower than the most common type of pancreatic cancer called adenocarcinoma.
- Pancreatic neuroendocrine tumors are either functional, which means that they cause overproduction of hormones, or nonfunctional (produce no hormones). Most functional neuroendocrine tumors are benign. However, approximately 90% of nonfunctional neuroendocrine tumors are cancerous.
- The overall average five-year survival rate for patients with pancreatic neuroendocrine tumors is 42%, ranging from 24% to 87%.*
- According to a population-based study, the average life expectancy after diagnosis with a metastatic pancreatic neuroendocrine tumor, which means that the cancer has spread, is 23 months. **
- Symptoms vary depending on the type of pancreatic neuroendocrine tumor. Functional pancreatic neuroendocrine tumors may cause the pancreas to overproduce certain hormones, such as insulin or glucagon. High hormone levels in the blood results in symptoms including weight loss, nausea, vomiting, muscle weakness and skin rash. Nonfunctional pancreatic neuroendocrine tumors do not overproduce pancreatic hormones. They are generally detected because of pain or jaundice caused by the large size of the tumor.
- Treatment options for pancreatic neuroendocrine cancer are somewhat limited. Surgical removal of the tumor is a common treatment. Some patients may benefit from chemotherapy, targeted therapy, radiation and/or hormonal therapy. At this time, there isn't a standard of care, or standard treatment,for pancreatic neuroendocrine cancer. Two targeted therapy drugs, Afinitor® (everolimus) and Sutent® (sunitinib), were recently approved by the U.S. FDA to treat advanced pancreatic neuroendocrine tumors and may be beneficial for some patients. Clinical trials are an option for obtaining treatments that are on the leading edge of medicine. Several therapies are currently being tested for the treatment of pancreatic neuroendocrine tumors in clinical trials.

Source for statistics:
**Pancreatic cancer survival by stage. American Cancer Society.*
http://www.cancer.org/Cancer/PancreaticCancer/DetailedGuide/pancreatic-cancer-survival-rates.
** Yao JC, Eisner MP, Leary C, et al. Population-based study of islet cell carcinoma . Annals of Surgical Oncology. 2007; 14: 3492–3500.