# PANCREATIC NEUROENDOCRINE TUMORS

## **About pancreatic NET**

Neuroendocrine tumors (NET) arise from cells that can produce and secrete a variety of hormones that regulate bodily functions.

Pancreatic NET originate in the pancreas and are also sometimes referred to as islet cell tumors.

Pancreatic NET is different from pancreatic exocrine cancer, which is generally referred to as pancreatic cancer.



NET is diagnosed in approximately

# 5 cases per 100,000 people,

with pancreatic NET accounting for about



## Pancreatic NET can occur in these different stages:

- Localized Pancreatic NET: Cancer has not spread beyond where it originally started
- Metastasized (advanced, inoperable) Pancreatic NET: Cancer has spread to other areas of the body making it difficult to treat

#### **Signs & Symptoms**

Signs and symptoms of pancreatic NET can depend on growth of the tumor and if the tumor is functional or nonfunctional.

Symptoms may include, but are not limited to:



Diarrhea



Persistent stomach ulcers



Indigestion



Blood clots in the lung



Skin rashes



Gallbladder

Pancreatic NET can be categorized as either symptomatic (functional) or asymptomatic (nonfunctional). Roughly **90**% of pancreatic NET are nonfunctional<sup>3</sup>.

#### **Functional pancreatic NET**

- Produce symptoms related to the excess hormones released by the tumor cells
  - May release excess gastrin, a hormone that causes the stomach to produce too much acid, leading to stomach ulcers

#### **Nonfunctional pancreatic NET**

- Can present with a broad variety of symptoms due to the tumor growing into adjacent or distant tissue, or may be asymptomatic (show no symptoms)
- Can produce hormones but to a much lesser extent than nonfunctional pancreatic NET. Most nonfunctional pancreatic NET are corrupt



## **Diagnosis**

Diagnosing NET can often take years because pancreatic NET tend to grow slowly or be asymptomatic. At the time of diagnosis, approximately 64% of pancreatic NET patients have advanced disease, meaning the cancer has spread to other parts of the body and has become more difficult to treat<sup>3,4</sup>.

The relative 5-year survival rate for localized pancreatic NET is 79%, whereas the 5-year survival rate for patients with advanced pancreatic NET is 27%<sup>5</sup>.

Delays in diagnosis can also lead to progressive disease, meaning that the cancer is growing, spreading or getting worse.

## **Managing Pancreatic NET**

A multidisciplinary team of medical experts is often involved in pancreatic NET management. This team may include an oncologist, gastroenterologist, endocrinologist, surgeon, nurse, and nutritionist, among others.

Management of pancreatic NET depends on a several factors, including the stage of the disease, size and location, and whether the patient has any other serious medical conditions.



- Surgery, chemotherapy, and targeted therapies are standard treatment options for patients with pancreatic NET<sup>6</sup>
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- 2. Yao, J, Shah, M, Ito, T, et al. Everolimus for Advanced Pancreatic Neuroendocrine Tumors. New Eng J Med 2011; 364:514-523.
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