Pancreatic Cancer - Current Research

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Latest Research

Doctors are working to learn more about pancreatic cancer, ways to prevent it, how to best treat it, and how to provide the best care to people diagnosed with this disease. The following areas of research may include new options for patients through clinical trials [2]. Always talk with your doctor about the diagnostic and treatment options best for you.

Early detection. Because the best chance of successful treatment is when pancreatic cancer is found early, ongoing research is focused on finding and using special blood tests, diagnostic imaging tools, and other approaches to find pancreatic cancer at its earliest stages, even at precancerous stages (known as pancreatic intraepithelial neoplasia, or PanIN lesions), before it spreads. These screening approaches are typically being used for people who have a high risk for pancreatic cancer, such as those with a strong family history or a known genetic condition that increases the risk of pancreatic cancer. It is not yet known if these screening tools could be used effectively for the general population.

Genetic studies. In cancer, damaged or abnormal genes cause uncontrolled cell growth. Many of the new developments are based on fixing or correcting damaged genes and proteins. Genetic studies are being done to find the damaged genes that are involved in pancreatic cancer. Once such genes are found, doctors can begin to screen people who may be at risk for pancreatic cancer. Learn more about the genetics of pancreatic cancer [3].

Immunotherapy. Immunotherapy (also called biologic therapy) is designed to boost the body?s natural defenses to fight cancer. It uses materials either made by the body or in a laboratory to bolster, target, or restore immune system function. One example of immunotherapy is a cancer vaccine [4], which stimulates a person?s immune system to recognize and attack cancer cells. A number of clinical trials have been done or are underway to study vaccines in a variety of types of cancer, including pancreatic cancer. Depending on the circumstances, vaccines may be given either after, during, or instead of chemotherapy. Learn more about immunotherapy [5].

Targeted therapy. As discussed in the Treatment [6] section, erlotinib is the only targeted therapy currently approved for pancreatic cancer, in combination with gemcitabine. Other drugs that may help block tumor growth and spread are being studied for pancreatic cancer, both as single drugs and as part of combination therapy. However, to date no other targeted therapies (including bevacizumab [Avastin] and cetuximab [Erbitux]) have been shown to increase survival for patients with pancreatic cancer. Research is also focused on new drugs that stop a gene called *Ras* from helping pancreatic cancer grow. Researchers are also looking to develop drugs that cause problems with the stroma, which is noncancerous tissue that surrounds cancer cells and maintains the cancer and blocks drugs from reaching the tumor. Learn more about targeted therapy [7].

Gene therapy. Gene therapy is the delivery of specific genes to cancer cells, which are often carried by specially designed viruses. These include normal genes that are delivered into the center of cancer cells; as the cancer cells divide, the working genes that were inserted in the cell replace the abnormal genes that contribute to cancer growth.

Chemotherapy. Several drugs have shown promise for advanced pancreatic cancer. These include TH-302, a drug that works when oxygen is low (called hypoxia) and MM-398, a different form of a drug called irinotecan that is already approved by the FDA. Another drug called tegafur-gimeracil-oteracil potassium (TS-1) works similarly to capecitabine.

Cancer stem cells. Pancreatic cancer stem cells are cells in the tumor that may be particularly resistant to standard therapies. Research is currently focused on identifying treatments that may specifically target those cancer stem cells.

Supportive care. Clinical trials are underway to find better ways of reducing symptoms and side effects of current pancreatic cancer treatments in order to improve patients? comfort and quality of life.

Learn more about common statistical terms used in cancer research [8].

Looking for More about Current Research?

If you would like additional information about the latest areas of research regarding pancreatic cancer, explore these related items:

- To find clinical trials specific to your diagnosis, talk with your doctor or search online clinical trial databases now [9].

- Review research [10] announced at recent scientific meetings or in ASCO?s peer-reviewed journals.
- Visit ASCO?s *CancerProgress.Net* [11] website to learn more about the historical pace of research for pancreatic cancer.

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