

## An Analysis of Pancreatic Cancer

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The pancreas is extremely important in various enzymatic activities, such as the production of numerous enzymes such as insulin. Pancreatic Cancer is an extremely deadly disease, which 40,000 people of the 46,000 diagnosed each year fail to survive. It is the 12th most common type of cancer and the 4th leading cause of cancer related deaths. There are 4 stages to Pancreatic ranging from stage 1 to stage 4, where the cancer has spread to a distant organ. Pancreatic cancer is an extremely difficult to diagnose as early symptoms aren't suggestive as many other illnesses have similar signs and symptoms. Diagnosis can be done through the use of physical examinations, ct scan, ultrasound, endoscopic ultrasound, PET scan, and most effectively a needle biopsy. Currently in development are numerous different therapies. A collective effort is being put forth to further improve current established methods to combat Pancreatic Cancer. A current four-drug chemotherapy, that had results published in May 2011 has shown a 4-month improvement using a regimen called Folfirinox. Compared to treatment with gemcitabine, which is the current therapy mainly utilized, Folfirinox showed improvement on 16 percent more patients in a phase 3 trial. Another trial with a combination of Nab-Paclitaxel and Gemcitabine was conducted against just gemcitabine. Patients with the combination showed a 1.8 months higher average survival rate than without, and showed a significantly higher survival rate through two years of 13% and 5% respectively. Overall these therapies must be reformed to be compatible with a bigger patient population. Subsequently the side effects of the treatments also need to be improved as the side effects include high risk of neutropenia. Both these treatments demonstrate a more efficient therapy and have been implemented into practice but still require improvement.

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