Options for the Treatment of Gemcitabine-Resistant Advanced Pancreatic Cancer

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ABSTRACT

Introduction Pancreatic cancer is noteworthy in that the number of patients dying from the disease is roughly equal to the number diagnosed. For more than a decade, gemcitabine has constituted the standard of care for the palliative treatment of the majority of patients who present with metastatic or relapsed disease, although the survival gains are limited. Despite a median survival of less than 6 months, a significant proportion of advanced pancreatic cancer patients who progress on gemcitabine remain fit and are candidates for second-line treatment.

Methods The OVID Medline database was searched from 1950 to present using the MeSH terms “pancreatic neoplasms”, “drug treatment” and “gemcitabine”. After excluding non-relevant results, 31 published studies were identified. These results were supplemented by searching the last 3 (2007-2009) American Society of Clinical Oncology (ASCO) Proceedings of Annual Meetings for studies published only in abstract form and reviewing reference lists of published articles.

Results and Discussion The evidence for second line treatments of metastatic pancreatic cancer consists mostly of single arm, small phase II studies. Oxaliplatin/fluoropyrimidine combinations appear promising and have shown increased survival compared to best supportive care. As the molecular pathways governing pancreatic cancer are unravelled, novel targeted therapies may offer the greatest promise for this disease either given alone, combined with one another, or with cytotoxic agents. The need for further, collaborative research is emphasised.