# **MINI REVIEW**

# Palliative Care in Metastatic Pancreatic Cancer

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#### ABSTRACT

Patients with metastatic pancreatic cancer have a high mortality rate with 5-year survival of 2.9%. Pancreatic cancer can cause a high symptom burden related to their disease. ASCO and NCCN recommend patients with metastatic disease be referred to palliative care at the time of diagnosis. Palliative care has consistently been shown to benefit patients with metastatic pancreatic cancer, but a large gap between the proportion of patients referred and those would benefit continues to exist. Here, we review the current literature on the benefits of palliative care in metastatic pancreatic cancer, the need for improvement in the current healthcare landscape, and some obstacles to be overcome in order to maximize the number of patients receiving this highly efficacious care model.

Keywords: Palliative care; Metastatic pancreatic cancer; End of life care; Diseases; Patients

#### **INTRODUCTION**

Pancreatic cancer is a very aggressive disease with a high mortality rate, despite advances in treatment options over the last decade with an 5-year survival rate of 12.8%. An estimated 66,440 new cases were diagnosed in 2024 [1]. Approximately 20% of patients have tumors that are surgically resectable at the time of diagnosis, with surgery offering the only possibility of cure [2]. Given this, most patients present to medical care with a diagnosis of advanced or metastatic disease, with an estimated 5-year survival rate in patients with metastatic disease of 2.9% [3].

Palliative Care (PC) offers a philosophy of care centered on patients and their families and caregivers, with focus on effectively managing pain and other symptoms that can be distressing with the goal of maximizing quality of life [4,5]. Patients with mPDAC can experience a heavy disease-related symptom burden including cancer related pain, challenges with nutrition and pancreatic exocrine insufficiency, failure to thrive, gastric outlet obstruction caused by the anatomic location of their tumors, as well as significant fatigue and weakness [6].

Guidelines from the National Comprehensive Cancer Network and the American Society of Clinical Oncology

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recommend that patients with metastatic pancreatic ductal adenocarcinoma (mPDAC) are referred to PC at the time of diagnosis as they are likely to benefit from this care [3,4].

#### LITERATURE REVIEW

### Palliative Care Has Consistently Been Found to Benefit Patients with Advanced Cancers

The WHO estimates that only approximately 14% of patients who would benefit from PC currently receive a referral [7]. Over the past 15 years, multiple trials have been aimed at demonstrating the value of integration of PC into management of advanced stage cancers as well as the benefit of early referral to PC. The ENABLE II trial utilized psychosocial educational sessions in patients with advanced cancers and found improved OOL and mood measures [8]. The follow-up study, ENABLE III, randomized patients to standardized PC consultations and coaching sessions versus as needed PC referral in patients with advanced cancers and found improved survival at 1 year in the intervention group (63% vs 48%), though no improvements in subjective QOL measures or health care utilization were observed [9]. A landmark study by Temel, et al, demonstrated improved median survival after early PC intervention in patients with metastatic non-small cell lung cancer (11.6 months vs 8.9 months) [10]. A subsequent study by the same group in patients with advanced lung or gastrointestinal malignancies found improved QOL measures and mood in patients who received early PC intervention, as well as an increase in frequency of goals of care discussions with their oncologists [11]. Two additional studies demonstrate a decrease in health care utilization in patients with advanced cancer who are referred to PC. Together these studies demonstrate the benefit of integration of PC into the care of patients with advanced malignancies.

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# **Current Landscape of Palliative Care in Pancreatic Cancer**

A study of Medicare claims data of 22,000 patients with pancreatic cancer found that aggressive care including chemotherapy and admission to an ICU increased in the last month of life [12]. Such healthcare utilization represents an inappropriate use of resources at a time when there is likely to be little benefit to patients. These types of interventions have also been associated with worse patient quality of life (QOL), increased mental and physical distress in patients, worse mental health and adjustment in bereaved family members and caregivers, as well as increased health care costs without meaningful benefit to survival [6,12-14]. In a prospective study of patients with any advanced cancer, more aggressive medical care was associated with worse QOL as well as a higher risk of major depressive disorder in caregivers after a patient's death, whereas longer hospice stays were associated with improved patient QOL which correlated with improved caregiver QOL and bereavement adjustment [13]. This same group found that place of death also correlates with outcomes in both patients and caregivers. Patients dying at home on hospice had a better QOL than those who died in the hospital. Death in an ICU increased risk for posttraumatic stress disorder in caregivers while death in the hospital was associated with a greater risk of prolonged grief disorder compared with caregivers of patients who died at home on hospice [14].

In analysis of pancreatic cancer patients enrolled on a clinical trial assessing benefits of PC intervention in patients with advanced cancers, a trend toward benefit in physical, social, and functional QOL measures was noted with the intervention [20]. The IMPERATIVE case-crossover study analyzed outcomes of patients with unresectable pancreatic cancer who underwent intervention with frequent PC visits (every 2 weeks for 1 month followed by every 4 weeks for 4 months) and found statistically significant improvement in QOL measures and symptom burden in those who received this intervention [21]. Our study found mPDAC patients who received PC were more likely to be referred to hospice and less likely to receive aggressive care at the end of life including chemotherapy in the last 2 weeks of life [17]. This data further supports the benefits of PC in patients with mPDAC.

Data regarding PC utilization specific to patients with pancreatic cancer are relatively limited. Analysis of patients with pancreatic cancer at one institution found a rate of referral to PC of 19.8% in patients with mPDAC [15]. Another group reported a referral rate of 29.8% in patients with any stage of pancreatic cancer [16]. In our own study, 39% of patients with mPDAC were seen by PC at any time during treatment [17]. Another group reported that the average time from diagnosis to referral was 6 months [18]. An observational study from Australia found that 45% of referrals to PC occurred when the patient was clinically deteriorating [19]. Given the recommendation by ASCO for universal PC referral at the time of diagnosis, this represents a large care gap.

# DISCUSSION

# Improvement in Palliative Care Referrals in Patients with Pancreatic Cancer is Needed

The disparity between the proportion of mPDAC patients referred to PC and the recommendation for referral in all patients at the time of diagnosis is vast and the reasons are likely multifactorial. While physicians may respond to the growing body of evidence that PC intervention benefits patients, there are a number of other barriers that must be overcome in order for patients to receive PC. Mention of palliative care can cause cultural apprehension in patients who may equate PC with loss of access to cancer directed therapy or other health care services or feel that their doctor may be "giving up" on them. In a survey of 1500 adults regarding public perception of PC, almost 40% of respondents found the term "palliative care" to be depressing, 56% reported fear of a referral, and nearly 30% equated a referral to a doctor giving up on them [22].

A national survey in the United States found that 38% of individuals thought PC was synonymous with hospice. Another obstacle worth is alignment of goals, priorities and preferences between physicians and patients. Younger patients with terminal diagnoses may value aggressive measures at the end of life and/or patients may feel that focusing on symptom management represents giving up on cancer care, which is often described by patients as a battle or a war. Public education as well as patient education at the time of diagnosis are necessary to help change perceptions as well as emphasize the benefit of PC integration into cancer care.

An additional limitation of universal PC for patients with mPDAC is availability of PC providers. The evidence of PC benefits coupled with improvements in treatment options for patients with advanced malignancies has led to increasing need for PC providers. In a 2010 survey of cancer centers, NCI-designated cancer centers were more likely than non-NCI-designated cancer centers to have palliative care available with only 22% of non-NCI-designated cancer centers having outpatient PC available [23]. A model of the growing need for hospice and PC physicians estimated that fellowships would need to almost double in size by 2030 to assure sufficient physician workforce and availability of services [24]. A recent study seeking to address this by evaluating a stepped-care model in which PC visits occurred only at key points during cancer care rather than at fixed spaced intervals demonstrated that fewer total PC visits after referral did diminish patient QOL [25].

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## CONCLUSION

In summary, there is a growing body of literature that supports the value of PC as part of the care of patients with mPDAC. At this time, referrals to PC are far below the 100% rate recommended by ASCO. There are a number of limitations at the physician, healthcare system, and patient level that contribute to this difference that will need to be overcome in order to deliver this efficacious care model to all patients who would derive benefit.

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