

# Surgeon-Patient Communication in the Treatment of Pancreatic Cancer

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**Background:** Effective physician-patient communication has been correlated with patient satisfaction and improved outcome. Pancreatic cancer (PC) is a disease with an overwhelmingly poor prognosis that requires a complex level of communication and emotional support. Since the treatment of PC is often surgical, surgeons play a central role in the care of these patients.

**Objectives:** To assess the quality of long- and short-term surgeon-patient communication. To assess the role of the surgeon in the emotional support of patients with PC.

**Design:** Combined mail and telephone survey of a case series of patients who had undergone a pancreatic resection for PC.

**Setting:** Urban tertiary cancer referral center.

**Patients:** Forty-eight patients who underwent pancreatic resection for PC.

**Intervention:** Pancreatic resection.

**Main Outcome Measure:** Patient satisfaction.

**Results:** Forty-eight patients completed surveys for a response rate of 70%. Patients were extremely satisfied with the information provided by their surgeon before surgery and while in the hospital. However, 21% of patients reported an unexpected outcome of their operation and 27% had questions about their disease at the time of the survey. Patients were largely satisfied with the emotional support they had received while in the hospital and after discharge. The attending surgeon was the most commonly desired source of additional emotional support.

**Conclusions:** While surgeon-patient communication was extremely effective before surgery and during hospitalization, patients developed long-term questions and dissatisfaction after discharge from the hospital. Strategies to improve long-term support and communication would benefit a significant number of patients with operable PC. Surgeons play an important role in the emotional support of patients with operable PC.

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**T**HE SURGEON plays a central role in the diagnosis, treatment, and follow-up of patients with resectable malignant solid tumors. Although professionals from many disciplines will participate in the care of patients with a solid tumor, it is the surgeon who is most intimately familiar with the operative procedures, their sequelae, and the long-term prognosis. Surgeons are therefore placed in a critical position that requires communicating a large amount of crucial information to a patient reacting to the catastrophic news of a cancer diagnosis. It is this position that also allows the

## See Invited Commentary at end of article

surgeon to provide and to coordinate the emotional support of a patient about to undergo a major oncologic operation.

Despite the central role of surgeons, little attention has been paid to the study of communication between surgeons and patients with cancer. While physician-patient communication has been studied in some detail,<sup>1,2</sup> most studies do not focus on interactions that involve surgeons or surgical interventions. An exception to this has been in the study of physician communication in patients with breast cancer that usually involves surgical interventions.<sup>3,4</sup>

The importance of physician-patient communication has been demonstrated in many studies. Aspects of interview style resulting in more effective communication have been shown to positively affect patient satisfaction,<sup>5-9</sup> adherence to medical regimens,<sup>9,10</sup> recall of facts,<sup>8,9,11</sup> and perhaps even outcome. Recent studies<sup>2,12</sup> have shown correlations between effective communication and objective medical outcomes such as blood pressure, blood glucose, and functional status.

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## PATIENTS AND METHODS

All patients alive at the time of this study who had undergone complete resection of PC from January 1994 to September 1996 were identified from the Memorial Sloan-Kettering Cancer Centers PC database, New York, NY. Patients living in foreign countries and those who were currently hospitalized or believed to be too ill were excluded.

A questionnaire was devised and consisted of 4 sections: (1) demographics, pain, and mood assessment, (2) questions regarding preparation for surgery, (3) questions regarding operation, and (4) questions regarding emotional support throughout treatment. Surveys were mailed to patients and followed up via telephone calls from one of us (K.H.). At the time of telephone contact, the survey was reviewed and answers recorded or a convenient time to do so was arranged.

Survey results were entered into a database and analyzed using statistical software (SPSS Inc, Chicago, Ill). Values are reported as mean  $\pm$  SD. To test for univariate associations, the  $\chi^2$  or Fisher exact test was used when appropriate.

For most patients with cancer, especially those awaiting major surgery, the experience of cancer is an extremely stressful event.<sup>13,14</sup> The emotional support of such patients is critical to their overall well-being. Studies have shown that attending physicians are one of the most important and desired sources of emotional support for patients. Moreover, providing information clearly and perhaps repeatedly is considered one of the most important means of emotional support a physician can provide.<sup>15,16</sup>

We chose to study aspects of communication in pancreatic cancer (PC) because it is a disease with an overwhelmingly poor prognosis. It was estimated that there would be 27 600 new cases of PC and 28 100 deaths related to PC in 1997.<sup>17</sup> Median survival is measured in months and, despite surgical resection, long-term survival is uncommon.<sup>18</sup> Additionally, patients with PC tend to have a high prevalence of physical and psychological symptoms.<sup>19-24</sup> Depressive symptoms are particularly associated with PC.<sup>13</sup> Thus, communication and support is a central aspect of the care of these patients.

Despite the discouraging statistics, the only potentially curative therapy for PC is surgical resection that often requires an operation to determine if the tumor is resectable. The surgeon therefore plays a critical role in the treatment, emotional support, and communication of information to patients with this difficult disease. The major objectives of our study were to (1) retrospectively evaluate patients' opinions about the effectiveness of surgeon-patient communication in patients who have undergone a complete resection of a malignant pancreatic tumor and (2) describe patients recollections about the role of the surgeon in providing emotional support.

## PATIENTS AND DEMOGRAPHICS

During the 34-month study period, 134 patients underwent pancreatic resection for adenocarcinoma. Thirty-five of them had died before the survey, 21 were too ill to be surveyed, and 2 were from foreign countries. Therefore, 76 surveys were mailed out. Of these 76, 7 (9%) patients were unexpectedly found to have died or were hospitalized. Of the 69 remaining evaluable surveys, 17 patients (24%) refused to participate in the survey and 4 patients (6%) did not respond, nor could they be contacted. Forty-eight patients completed the interview, yielding a 70% response rate. The mean time from operation to the time of survey was approximately 13 months (range, 3-31 months). Six different attending surgeons were responsible for the care of the 48 patients. Of 48 patients, 22 were women and 26 were men aged 70 years (median range, 39-85 years). The education level was split into 28 having less than college education and 20 with college education or higher. Forty-five patients were white and 3 were classified as others. The **Table** summarizes the pain and mood assessment of the patients at the time of the survey.

## PREPARATION FOR SURGERY

Most patients were informed of the probable diagnosis of PC before meeting with their surgeon. Thirty-five (73%) had the diagnosis first suggested to them by their primary care physician while only 5 patients (10%) had their surgeon first suggest the diagnosis. Approximately half of the patients recalled having the risks and benefits of an operation explained to them before meeting with their surgeon.

Forty-five patients (94%) recalled that they did not want more time with their attending surgeon after their initial meeting. The response to this question was not significantly associated with sex, current mood or pain, or time from operation to survey. Patients recalled the amount of time spent in their initial meeting with their attending surgeon as generally being more than 10 minutes. Only 4 patients (8%) thought that their initial meeting was less than 10 minutes; however, 33 patients (69%) believed that the initial meeting was more than 20 minutes.

When asked to describe the demeanor of the attending surgeon at the initial meeting, 46 (96%) used positive words such as patient, warm, understanding, or supportive. Eighteen (38%) patients were seen by a surgical resident or fellow before meeting with their attending surgeon. Of 18 patients seen by a resident or fellow, 12 (67%) found this meeting beneficial. After this initial meeting with their surgeon 44 patients (92%) recalled having no questions left unanswered. The response to this question was not significantly associated with sex, current mood or pain, or time from operation to survey. Three patients recalled having unanswered questions; 1 was regarding prognosis and 2 patients could not specify the unanswered question.

A series of questions addressed patients' desire to know the likelihood of survival from their disease. When initially told of their disease by their surgeon, 25 patients (52%) recalled wanting to know the chance for cure and 18 patients (38%) directly asked their surgeon how long they were likely

### Pain and Mood Assessment\*

No. of patients	48
In physical pain, yes:no	21:27
Pain scale score, No. (%)†	
1-3	23 (48)
4-6	18 (38)
7-10	7 (14)
Mean ± SD	4.1 ± 2.4
Mood scale score, No. (%)‡	
0-3	3 (6)
4-6	11 (23)
7-10	34 (71)
Mean ± SD	7.5 ± 2.4

\*Patients were asked about their level of pain and overall mood at the time of the survey.

† Patients were first asked if they had any pain at all. Of the 21 patients who reported some level of pain, they were asked to assess their pain on a scale of 1 to 10 with 1 being minimal pain and 10 being the most intense pain imaginable.

‡ To assess overall mood, patients were asked to rank their mood from 0 to 10 with 0 being extremely sad, depressed, and/or angry and 10 being extremely happy and/or content.

to survive. The patients who asked their surgeon about survival generally reported being satisfied with the answer they received (83% approval). Twenty-nine patients (60%) reported that they did not ask their surgeon about the likelihood of survival and of these, 3 patients said they had been told of their survival chances without asking. Finally, 26 patients (54%) thought that in retrospect, it is beneficial to know their prognosis. The responses to these questions were not significantly associated with sex, current mood or pain, or time from operation to survey.

### INFORMATION REGARDING THE OPERATION

Forty-one patients (85%) recalled their surgeon discussing the necessity and explanation of the surgical procedure before operation. Thirty-three patients (69%) stated that they had the risks of the operation explained to them by their surgeon and 12 patients (25%) reported that other options had been discussed. On a scale of 1 to 5 with 1 being no understanding at all and 5 being complete understanding, patients recalled a mean understanding of 4.7 regarding the explanation of their operation by their surgeon. Forty patients (83%) had no unanswered questions regarding their operation before surgery and these responses had no significant association with sex, current mood or pain, or time from operation to survey. Twenty-six patients (54%) reported wanting to know a detailed description of their operation and 34 (71%) recalled having it explained to them. When asked whether a videotape describing the disease and operation to take home would have been helpful, 18 patients (38%) responded affirmatively.

After surgery, while in the hospital, 30 patients (63%) recalled having more than 5 discussions with their attending surgeon and on average, patients recalled having approximately 5 discussions. Forty-two patients (88%) had the results of their surgery discussed with them at least once while family or friends were present and all 42 found this helpful and supportive. On discharge from

the hospital, 45 patients (94%) reported being satisfied that all their questions regarding their disease and operation had been satisfactorily answered. This response was not significantly associated with sex, current mood or pain, or time from operation to survey.

Ten patients (21%) reported an unexpected outcome of their operation not discussed with them before their operation. This response was not significantly associated with sex, current mood or pain, or time from operation to survey. Of these 10 patients, 6 (60%) involved long-term medical problems such as diabetes or gastrointestinal complaints, 3 (30%) involved short-term effects of surgery (<1 month after discharge), and 1 (10%) involved long-term emotional complaints. Thirteen patients (27%) reported still having unanswered questions regarding their diagnosis and treatment at the time of the survey and this response was significantly associated with being in pain ( $P < .05$ ). Of these 13 patients, 9 (69%) had questions about medical follow-up and/or treatment, 3 (23%) had questions about prognosis, and 1 (8%) had an unspecified question.

### PROVISION OF EMOTIONAL SUPPORT

Approximately half of the patients recalled that their surgeon addressed their feelings before and after their operation. Recollection was not associated with sex, current mood or pain, or time from operation to survey. A series of questions addressed the physical means of communication used by surgeons. Forty-six patients (96%) reported the surgeon looking them in the eye and all 46 found this comforting. Thirty-nine patients (81%) reported the surgeon sitting while speaking to them and all 39 found this comforting. Of the 9 patients who did not recall their surgeon sitting while speaking, only 1 reported that he would have preferred this. Thirty-three patients (69%) recall their surgeon using some form of physical contact (eg, hold hands or hug) and all 33 found this comforting. Of the 13 patients whose surgeon did not use any form of physical contact, 2 would have preferred that they had done so. Thirty-six patients (75%) believed that the discussions were not emotionally difficult for their surgeons.

On a scale of 0 to 10 with 0 being the worse and 10 being the best, patients were asked how well emotional issues were addressed during and after their hospitalization. During hospitalization, patients reported a mean ( $\pm$ SD) score of  $8.0 \pm 2.3$  and after hospitalization  $8.2 \pm 3.1$ . Patients were asked from which member of the medical team they would have liked to have received more emotional support. During hospitalization, 24 patients (50%) reported needing no further emotional support and 8 (33%) of the remaining 24 patients picked their surgeon. The others were scattered among many choices such as resident, psychologist, family, nurses, and clergy. After hospitalization, 32 patients (67%) reported needing no further emotional support. Of the remaining 16 patients, 6 (38%) would have preferred more emotional support from their surgeon, 0 from a resident, 2 (13%) from a mental health professional, 4 (25%) from family, 2 (13%) from nurses, 1 (6%) from clergy, and 1 (6%) did not answer.

This study reports on the recollections of a uniform group of patients with operable PC from 1 institution. We chose to study PC because it is a disease with a uniformly poor prognosis where communication and emotional support are both challenging and critical. Additionally, surgeons play a central role in the treatment and follow-up of these patients.

One of the most significant findings of this study is the high rate of patient satisfaction and low level of pain and mood alterations. A number of studies have documented high rates of pain<sup>19,22</sup> and mood alterations<sup>20,21,23</sup> in patients with PC; however, these were performed on groups of patients at a variety of stages of disease. Depression has been found in approximately 50% of patients and moderate to severe pain in 60% to 80% of patients. A recent study by Kelsen et al<sup>24</sup> on patients with PC before operation or awaiting chemotherapy found lower rates of depression (38%) and pain (29% moderate to severe) than previously reported. Our study reports on patients after complete resection of PC, and this group of patients appears to have even lower rates of depression and pain.

Despite the extremely high level of overall satisfaction with the information provided by the surgeons throughout the initial operative course, 21% of patients had an unexpected outcome of their operation and 27% of patients had questions about their diagnosis and treatment at the time of this survey. The implication seems to be that while patients are satisfied with their information before surgery and during hospitalization, we are clearly not providing enough information to help in the long-term and do not continue to provide information after operation for a significant number of patients. The long-term medical and psychological sequelae of a large oncologic operation must be adequately explained to patients and reinforced after surgery at follow-up visits. If long-term follow-up is not feasible for the surgeon, appropriate referrals for such follow-up must be secured for these patients.

The majority of studies on physician-patient communication focus on how to improve a single interaction such as an office meeting or morning rounds. A variety of physician behaviors such as involving patients in decision making and providing emotional support have been correlated with more effective communication in these instances.<sup>6-9</sup> Our study indicates that the major problem in operable PC is long-term communication after surgery. A study identifying methods of improving this long-term communication would be worthwhile and may potentially benefit the quality of life for many patients with cancer.

An important issue in patients with cancer is communicating the long-term prognosis after treatment. We attempted to define how much patients with resectable PC wanted to know about their chances of survival. Our results suggest that half of the patients wanted to know about their prognosis and half did not. This even split occurs at the time of initial contact with the surgeon and in retrospect after treatment. The ethical issue of whether to communicate prognosis to patients with cancer is beyond the scope of this article, but it is clear that not all patients want to know their prognosis and of those who do, not all will ask their surgeon directly. Thus, skillful communication

is required to anticipate patients attitudes toward these issues before disclosing prognostic information.

Patients appeared to be generally satisfied with the emotional support they received throughout their treatment. Most patients thought that no further emotional support was necessary during or after hospitalization. However, the patients who wanted more support most commonly named the surgeon as the desired source of further emotional support. This finding is similar to the study by Slevin et al<sup>15</sup> who found that the senior physician, along with the family, is the most important source of emotional support for patients with cancer. Oncologic surgeons must bear in mind that they are an important source of emotional support to their patients throughout the course of their disease.

There are sources of bias in this study that require these findings to be interpreted with caution. First, the survey was conducted by medical personnel from the treating institution, and patients will have some level of response bias in this setting. Patients are more likely to respond in a manner that places the treating hospital in a positive light for reasons of social desirability and perhaps for fear of insulting the source of their life-prolonging medical care. Second, it is important to realize that the patients surveyed are a select group of patients who are elderly, white, middle- to upper-class individuals being treated in a tertiary care specialized cancer center. Third, our patients were alive on average 12 months after their operation for PC. The gratitude and positive recollection of treatment that stems from such a situation is obvious. Yet, the prognosis of the patients in this study is still guarded and this might have tempered this bias to some extent. Of the original cohort (N = 134), 58 (43%) had died by the time of the survey and 21 (16%) refused to participate or could not be contacted. This may suggest that we have only surveyed the satisfied patients. Although this bias is possible, it seems unlikely, since the dissatisfied often find such surveys an opportunity to express their discontent. However, those with a fatal outcome may well have had different feelings.

Despite the sources of bias in this study, there are a number of important conclusions that can be reached. Surgeons play an important role in the provision of information and emotional support of patients with operable PC. Patients are generally satisfied with the communication with their surgeons before surgery and in the hospital, but appear to be less than optimally prepared for long-term problems. Surgeons need to develop effective long-term support systems for their patients after surgery. Last, surgeons must be aware that they are a desired source of emotional support for their patients and should bear this in mind when communicating with patients at any time.

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### Invited Commentary

**I**n a challenging disease setting at a major cancer center, Dr D'Angelica and colleagues in psychiatry and surgery present data from a survey tool indicating that patients chiefly identify the senior surgeon as their essential source of information and emotional support. I am unable to resist 2 untestable observations: (1) a good psychiatrist is worth his or her weight in gold; (2) despite my self-perception (undoubtedly inflated) that I am a sensitive physician, I am continually surprised by in-depth insights good psychiatrists elicit from patients.

Did we know a priori what D'Angelica et al have told us? Probably, or at least we should have. Good literature has informed us, if not our own experience. Tennessee Williams in *Cat on a Hot Tin Roof* presents the painful image of a physician abdicating this support role, a poignant message not to be missed. An affirmation by objective testing of this critical role, the surgeon (and we can probably safely generalize to senior treating physician) does and must play for the well-being of his/her patient is illuminating in its consistency and necessity. Although the authors acknowledge the potential bias of their sample, their findings are reassuring in this time of dissection and redefinition of roles in health care. The need that the majority of patients expressed for a physical sign of caring on the part of the surgeon is at once instructive, imperative, and heartwarming. That there is a degree of desirable acquired skill in this relationship is evidenced by the necessity of judging which half of the patients want to be told their prognosis and when.

The authors (or perhaps more correctly the patients speaking through the survey) challenge us to extend this emotional support well beyond the surgical encounter and do more. Indeed, Dr Blake Cady, a professor of surgery, reminds us that a major product in the traffic of surgical oncology is reassurance. This need is not casual. Warmth of personality without surgical skill is not helpful, but the reverse is incomplete. Dr D'Angelica and colleagues' study is, in effect, a straightforward statement that in the stewardship of caring for one's fellowman, the surgeon/physician must step up to the plate with a full heart. The effort the authors put forth to provide good data that this action affects the well-being of the patient is needed and appreciated.

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