Delta DT decreased for a majority of patients (60%). 84% of those with high scores (7 or more) showed a decrease of 1.66 (SD 2.55) points in their distress score if an intervening therapy was initiated. The Delta DT decrease was not significant if the patient population was separated by age, gender, or the presence of an intervening therapy. These findings were statistically significant for a sample size of 140 patients. The modest sample size limits the generalizability of the findings. Multidisciplinary consultation and evaluation is recommended for patients with high distress scores. Table 1 illustrates the interval between DT-1 and DT-2.

**RESULTS**

### DISTRESS THERMOMETER

#### Table 1: Interval between DT-1 and DT-2

- 63% of the patients had DT-2 within 4 weeks of initial DT measurement.
- For 59 patients (42.1%), their earliest second distress measurement was after the initiation of an intervening therapy.

#### Distress Thermometer: First Score (DT-1)

The mean DT-1 was not significantly associated with gender. Given the modest sample size, the mean DT-1 can be considered marginally significant. When age is considered as a continuous variable, p = 0.010; on average decreasing by 0.5 points for every year older.

#### Distress Thermometer Change (Delta DT)

On average, the distress score is 1.09 points lower if an intervening therapy is initiated. The Delta DT decrease of 1.66 for these patients was larger than 0.30 in patients who did not initiate therapy (but was not statistically significant).

### MODIFIED DISTRESS THERMOMETER

#### Top Sources of Distress: N %

- Worry (62.6)
- Nervousness (52.9)
- Disruptive Sleep (41.4)
- Fear (37.7)
- Frustration (23.6)
- Sadness (25.0)
- Difficulty Concentrating (31.2)

#### Distress Thermometer Change - DT-2 Score

- Given a median sample size, the DT-2 can be considered marginally significant.

### CONCLUSION

1. The modified Distress Thermometer is a simple tool to use in a busy clinic to identify patients with high distress. Majority of patients have an initial DT score ≥5 (mean = 5.5 ± 3.3) which is considered significant by the Oncology Nursing Society guidelines and recommends psychosocial assessment. Young age is associated with higher distress than those at or above 65.
2. Delta DT decreased for a majority of patients (60%), 84% of those with high scores (7 or more) showed a decrease of 1.66 (SD 2.55) points in their distress score if an intervening therapy was initiated. The Delta DT decrease was not significant if the patient population was separated by age, gender, or the presence of an intervening therapy. These findings were statistically significant for a sample size of 140 patients. The modest sample size limits the generalizability of the findings. Multidisciplinary consultation and evaluation is recommended for patients with high distress scores. Table 1 illustrates the interval between DT-1 and DT-2.

#### Delta DT by Subgroups at Baseline:

As one would expect, the higher the baseline distress, the more the distress score can decrease over time. Likewise, the lower the baseline distress, the more opportunity there is for the distress to increase over time. This is a simple function of the limits of the test, and not necessarily driven by disease or therapy.

#### Delta DT by Subgroups N Mean Std. Dev.

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
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<tr>
<td>Overall</td>
<td>140</td>
<td>5.10</td>
<td>2.70</td>
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#### Current initiatives include:

- Identification of potential measurable interventions to permit further study of opportunities to provide psychosocial relief to patients.
- Determination of optimal intervals for distress measurement for possible greater efficiency and increased compliance in participation.

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**SIGNIFICANCE AND BACKGROUND**

Pancreas cancer carries a poor prognosis and is associated with high levels of anxiety and distress. Increasing access to patients to these bleak statistics adds to rapid onset of distress which can be significant at initial diagnosis. Since 2005, we have collected a Distress Thermometer score (DT) at the time of a clinic visit to quantify patient distress. 140 paired measurements of DT scores have been analyzed to better understand the distress and related concerns that contribute to distress in patients with a pancreatic cancer diagnosis.

**OBJECTIVES**

1. To determine if a timely multidisciplinary consultation and the development of a medical treatment plan serves to decrease distress in patients by evaluating the DT scores.
2. To determine if any correlation exists between the distress score and demographic variables of age, gender, ethnicity, stage of disease and intent of therapy (curative or palliative).
3. To identify those concerns that are most frequent in this patient population.

**INTERVENTIONS**

The Multidisciplinary Pancreas Cancer Clinic (MDC) is a team of specialists with an interest in the care and treatment of pancreatic cancer patients including oncologists, surgeons, nursing, and social work. Initial visits focus on the staging, diagnosis and formulation of a treatment plan which can include multiple consultations and lengthy discussions. To help identify patients and families with high distress we collected a Distress Thermometer at the time of the clinic appointment. A DT score of 5 or more prompted a social work evaluation and triggered increased participation of the interdisciplinary team in the psychosocial care of patients as treatment was planned.

**METHODS**

A retrospective review of patients with a diagnosis of pancreatic cancer who were seen in the MDP found 140 cases with at least one follow-up distress measurement, completed between 1 week and 8 weeks after the initial MDP visit. Differences between the first visit measurement (DT-1) and the first follow-up measurement (DT-2) were calculated as Delta DT. Negative (-) values indicate a decrease in distress and positive (+) values indicate an increase in distress.

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**REFERENCES**

- Hampton RN, OCN, Jan., Henrickson C, MSW, BCN, Griffith K, MPH, Zalupski M, MD. Multidisciplinary Pancreas Tumor Clinic, University of Michigan. 1500 E. Medical Center Dr., Ann Arbor, MI 48109

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**INTEGRATION OF 66**

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- When age is considered as a continuous variable, p = 0.010; on average decreasing by 0.5 points for every year older.

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