Pancreatic Cancer Screening

This practice algorithm has been specifically developed for MD Anderson using a multidisciplinary approach and taking into consideration circumstances particular to MD Anderson, including the following: MD Anderson’s specific patient population; MD Anderson’s services and structure; and MD Anderson’s clinical information. Moreover, this algorithm is not intended to replace the independent medical or professional judgment of physicians or other health care providers. This algorithm should not be used to treat pregnant women.

Note: Screening is only intended for asymptomatic individuals and should be performed 10 years before age of diagnosis in closest relative affected with pancreatic cancer. Individuals undergoing pancreatic cancer screening should have a 10-year life expectancy and no co-morbidities that would limit the diagnostic evaluation or surgical treatment. The screening technique should be performed with a consistent technique and process.

<table>
<thead>
<tr>
<th>PRESENTATION</th>
<th>RISK</th>
<th>SCREENING</th>
</tr>
</thead>
</table>
| Presence of pancreatic cancer symptoms? | No | Mildly Elevated Risk² (Relative Risk) | • Baseline physical examination  
• Baseline blood markers (Ca19.9, fasting glucose, amylase, lipase and HgbA1c) |
| | Yes | Moderately Elevated Risk² (Relative Risk) | • Physical examination annually  
• Blood markers (Ca19.9, fasting glucose, amylase, lipase and HgbA1c) annually  
• Imaging studies (MRI/MRCP) annually or biannually |
| | | High Risk² (Relative Risk) | • Physical examination annually  
• Blood markers (Ca19.9, fasting glucose, amylase, lipase and HgbA1c) annually  
• Imaging studies (MRI/MRCP) annually  
• Baseline endoscopic ultrasound (EUS)³ |

¹Pancreatic cancer symptoms include:  
• Weight loss  
• Jaundice  
• Abdominal/back pain  
• Nausea/vomiting

²See Appendix A - Pancreatic Cancer High Risk Cohort (PCHRC)

³EUS will be repeated if patient developed other symptoms or if physical exam, blood markers or imaging tests show any abnormality
### APPENDIX A: Pancreatic Cancer High Risk Cohort (PCHRC)

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Patients not eligible for PCHRC</th>
<th>Patients eligible for the PCHRC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mildly Elevated Risk</td>
<td>Moderately Elevated Risk</td>
</tr>
<tr>
<td>Family History</td>
<td>1 FDR</td>
<td>2 or more relatives with Pancreatic Cancer</td>
</tr>
<tr>
<td>BRCA1 mutation</td>
<td>No Pancreatic Cancer Family History</td>
<td>With Pancreatic Cancer Family History</td>
</tr>
<tr>
<td>PALB2</td>
<td>No Pancreatic Cancer Family History</td>
<td>With Pancreatic Cancer Family History</td>
</tr>
<tr>
<td>BRCA2</td>
<td>No Pancreatic Cancer Family History</td>
<td>With Pancreatic Cancer Family History</td>
</tr>
<tr>
<td>MMR mutation (Lynch syndrome)</td>
<td>No Pancreatic Cancer Family History</td>
<td>With Pancreatic Cancer Family History</td>
</tr>
<tr>
<td>Li-Fraumeni Syndrome</td>
<td>No Pancreatic Cancer Family History</td>
<td>With Pancreatic Cancer Family History</td>
</tr>
<tr>
<td>CDKN2A/p16 mutation</td>
<td>No Pancreatic Cancer Family History</td>
<td>With or Without Pancreatic Cancer Family History</td>
</tr>
<tr>
<td>STK11 mutation (Peutz Jeghers Syndrome)</td>
<td>No Pancreatic Cancer Family History</td>
<td>With or Without Pancreatic Cancer Family History</td>
</tr>
<tr>
<td>PRSS1 mutation (Hereditary Pancreatitis)</td>
<td>No Pancreatic Cancer Family History</td>
<td>With or Without Pancreatic Cancer Family History</td>
</tr>
</tbody>
</table>

Note: Some patients may not fit the criteria perfectly and risk assessment will be done by discussion with genetic counselor and expert physician given that this is an evolving field.

FDR=first degree relative
SUGGESTED READINGS


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DEVELOPMENT CREDITS

This screening algorithm is based on majority expert opinion of the Pancreatic Cancer Screening work group at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

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