Quality improvement, outreach and advocacy in pancreaticobiliary cancer

Knight Cancer Network Symposium 3/12/2021

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Hedinger Chair and Division Head of Surgical Oncology
Physician-in-Chief, Knight Cancer Institute
Important Elements of Treating PDAC

1) Timely referral and appointments
   - Median time from referral to consultation 5 days (range 0-28)

2) Multidisciplinary management (ie tumor board)
   - Held weekly on Tue evening
   - Surgery, Med/Rad Onc, Pathology, Radiology, Trainees, Nurses

3) Check lists/templates
   - Pancreas-protocol CT staging template (not older than 6 wks)
   - Selective EUS with stent/biopsy (within 48-72 hrs)
   - Re-review of outside path reports

4) Genetic counseling, nutrition support for all patients
**Important Elements of Treating PDAC**

4) Consider neoadjuvant therapy for:
   - High risk resectable (high CA 19-9, large tumor, concurrent illness)
   - Borderline
   - Locally advanced disease

5) Aggressive pancreatectomy with vascular resection (if warranted)

6) Minimize morbidity and enhance recovery

7) Novel therapeutics evaluated thru clinical trials

8) Palliative care and psychosocial support
• **Location of Tumor (where majority of tumor is located).**
  - Uncinate – parenchyma posterior to SMV/ PV
  - Head – parenchyma between uncinate and neck
  - Neck – parenchyma anterior to the SMV
  - Body – closest 50% of the parenchyma to left (upstream) of neck
  - Tail – furthest 50% of parenchyma to the left (upstream) of the neck

• **Tumor Size (maximum length in transverse, coronal, or sagittal plane)**
  - Vascular Involvement:
    - Vessels evaluated: SMV, Splenic V & A, Portal, Celiac, SMA, Hepatic Artery
    - Tumor involvement is graded by highest degree of involvement
      - **None** – no evidence of tumor contact.
      - **Abutment** – Tumor contact 1–180° with vessel circumference
      - **Encasement** – Tumor contact 181–360° with vessel circumference
      - **Occlusion** – No contrast enhancement (regardless of degree of tumor contact)

• **Liver Assessment**
  - **Normal**
  - **Benign** – Presence of hepatic lesions that are benign (cysts, hemangiomas, etc) based on their imaging features. High degree of confidence that observation is benign
  - **Indeterminate** – Lesion(s) of uncertain etiology that are of indeterminate probability for metastasis
  - **Suspicious** – Finding that is probable (>50% likelihood) but not definitely metastasis.
  - **Consistent with Metastasis** – radiologist is virtually 100% certain that lesion represents a metastasis. If there is doubt then lesion should be classified as suspicious.

• **Ascites.** Presence or absence of ascites should be noted. If there are any findings suspect for peritoneal disease these should be noted.

• **Lymphadenopathy:** (peri-pancreatic, para-aortic, celiac, distant)

• **Short axis length of 8A lymph node (pre-hepatic artery)**

• **Bowel involvement** (duodenum, stomach, jejunum, colon)
EUS by local experts

1) Obtain tissue biopsy with in room path evaluation of specimen (core bx)

2) Examine local mesenteric vasculature
   1) Portal vein, SMV, Splenic V, IVC
   2) Celiac axis, SMA, Aorta

3) Staging
   1) Liver metastases
   2) Peritoneal disease (ascites, carcinomatosis)
   3) Celiac, Hepatic artery and aortocaval lymph nodes

4) Palliation
   1) CBD- Plastic vs metal stent, choledochoduodenostomy
   2) GI-duodenal stent vs endoscopic GJ
   3) Plexus block
Does mesenteric venous imaging assessment accurately predict pathologic invasion in localized pancreatic ductal adenocarcinoma?

Jesse Clanton1, Stephen Oh2, Stephen J. Kaplan3, Emily Johnson3, Andrew Ross4, Richard Kozarek4, Adnan Alseidi1, Thomas Biehl1, Vincent J. Picozzi2, William S. Helton1, David Coy3, Russell Dorer5 & Flavio G. Rocha1

![Image showing a pie chart and a bar graph.]

1/3 of upfront “resectable” PDAC required mesenteric venous resection
Endoscopic diagnosis, staging and palliation
Quality Improvement
The History of TPS and VMPS

• Measure observations

• Mistake proofing

• Automation

• Reduced downtime

• Walk the factory floor (genba)

• Reduced waste (muda)

• Incremental improvement (Kaizen)
Value Stream Map
Orders required tests

Referral Received

Navigator

Reviewed
by MD &
Navigator

Orders Tests

Schedules Pt

Forwards schedule to the referring physician

Each specialist (virtually) meets with one new patient

Each specialist (virtually) meets with the other patients they haven’t met so far

Last specialist to see the patient provides treatment plan to the patient

Specialists get together (virtually / in-person) to discuss the patient’s plan of care

The next day the Navigator follows-up with the patient to answer questions and schedule appointments

Telehealth Visioning session

- Intuitive and Reliable platform
- HIPPA and Privacy
- Flexible provider schedules
- Access to multidisciplinary care
- Payment / Insurance Coverage
- Tech support and training for patients
- Platform leader
- Warm handoffs/ MA to setup

Telehealth Multidisciplinary Pathway – PDSA Model 1

• Intuitive and Reliable platform
• HIPPA and Privacy
• Flexible provider schedules
• Access to multidisciplinary care
• Payment / Insurance Coverage
• Tech support and training for patients
• Platform leader
• Warm handoffs/ MA to setup

Determine
(a) Multidisciplinary eligibility
(b) Pre-visit testing

Orders Tests

Schedules Pt

Forwards schedule to the referring physician

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### Experience-Based Design for Patients With Pancreatic Cancer

#### Key Experience Points

- **First experienced symptoms**
- **Undergoing diagnostic testing**
- **Given diagnosis of pancreatic cancer**
- **Informed others of the diagnosis**
- **Received treatment**
- **Received support services**
- **Discharged from the hospital**
- **Hospice care**
- **Seeing provider**

#### Negative Experience (%)

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Learned</th>
<th>Redesign</th>
</tr>
</thead>
<tbody>
<tr>
<td>With often-fatal disease like pancreatic cancer, outcomes are more important than experience.</td>
<td>The care journey is all important because patient survival may not be long.</td>
<td>Pancreatic care process redesigned around patient and caregiver needs.</td>
</tr>
<tr>
<td>Long-term outcomes matter most.</td>
<td>Aspects of treatment (e.g., need for postsurgical drain, inability to get out of bed, pain, intolerance of normal diet) profoundly affect the experience of care.</td>
<td>Improved educational resources for patients and caregivers around expectations for the treatment journey enable emotional and physical preparation.</td>
</tr>
<tr>
<td>Hope is only about achieving cure.</td>
<td>Hope is critical but has different meanings between individuals, and is often based on meaningful life events rather than survival.</td>
<td>Know Me form to make patients goals and values visible to care team.</td>
</tr>
</tbody>
</table>

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Hagelson et al, JOP 2016
Patient/Caregiver Education

Understanding Your Pancreas
A Patient’s Guide to Pancreatic Surgery

Tumors in the head of the pancreas require removal of the entire head of the pancreas, along with the duodenum, the gallbladder, and part of the bile duct. A complex reconstruction is then undertaken, where your stomach, pancreas, and bile duct are all reconnected to your small intestine.

About Your Pancreas
The pancreas is an organ located in the back of your abdomen, behind your stomach and underneath your liver. It has three parts: the head, the body and the tail. The head of the pancreas is closest to your right side. The tail is closest to your left side. Important functions of the pancreas include:

- Making enzymes that mix with your food and aid in digestion of proteins, fats, and sugars.
- Making hormones, such as insulin, that enter the bloodstream and regulate your body’s metabolism.
**“Know Me” Intake Form**

**Dear Patient,**

Pancreatic cancer is a difficult disease. Each person deals with their diagnosis differently. Some people desire very detailed information all at once, while others want a little bit of information at a time. No one can ever be fully prepared.

The attached tool was developed by patients, their families, and team members. It is a way to help us understand you as a unique person, and it is meant to help you work through needed conversations with yourself, your caregivers, family, friends, providers, and care team.

The tool strives to empower you as you deal with this difficult disease. You can decide how to use it: you can complete and share it right now, or you can take it home, talk about it with loved ones, and bring it back next time. Please don’t feel like you need to have all the answers figured out; what you are feeling right now is what is important. The idea is to start the conversation so that we can be realistic with your goals as you know them today.

We want to know you, your values, symptoms, beliefs, and preferences. We want to hear about you and what you are feeling, even if you don’t think it’s important. During the course of your treatment, your goals may change. With your input, we will aim to give you the right information, in the right amount, at the right time.

We understand that this conversation is ongoing, and look forward to updating this information together with you. The information you complete on this form will guide your care and your decision making, and help us honor you and your personal life goals.

Your Virginia Mason Pancreatic Cancer Care Team

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**What I want you to know about me...**

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who matters most to me:</td>
<td>Email, Cell Phone, Other</td>
</tr>
<tr>
<td>My story of support includes:</td>
<td></td>
</tr>
<tr>
<td>My goals of care are:</td>
<td></td>
</tr>
<tr>
<td>My greatest hope is:</td>
<td></td>
</tr>
<tr>
<td>My greatest fear is:</td>
<td></td>
</tr>
<tr>
<td>Information I will need includes:</td>
<td></td>
</tr>
<tr>
<td>My strengths at this time include:</td>
<td></td>
</tr>
<tr>
<td>My obstacles to care of Virginia Mason include:</td>
<td></td>
</tr>
<tr>
<td>At this time I plan to be given:</td>
<td></td>
</tr>
<tr>
<td>If I feel I understand my diagnosis:</td>
<td>Complete, Very Well, Not Sure, A Little, Not at All</td>
</tr>
<tr>
<td>If I feel I understand my prognosis:</td>
<td>Complete, Very Well, Not Sure, A Little, Not at All</td>
</tr>
<tr>
<td>If I feel I understand my treatment plan:</td>
<td>Complete, Very Well, Not Sure, A Little, Not at All</td>
</tr>
<tr>
<td>In the event you feel unable to make decisions, do you have someone who will speak for you?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Do you have someone designated with Power of Attorney for Medical Decisions?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>If possible, please record your care preferences and provide me with a CD/digital format recording:</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Do you have any events coming up in your treatment coming year?</td>
<td></td>
</tr>
<tr>
<td>How do you spend your days?</td>
<td></td>
</tr>
<tr>
<td>Would like to be contacted by a member of the Pancreatic Cancer community:</td>
<td>Yes, No</td>
</tr>
<tr>
<td>My faith preferences:</td>
<td></td>
</tr>
<tr>
<td>Would I like a visit from Spiritual Care?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Please provide me with information about these support services:</td>
<td></td>
</tr>
<tr>
<td>O Nutritional Support</td>
<td></td>
</tr>
<tr>
<td>O Transportation/Logistics</td>
<td></td>
</tr>
<tr>
<td>O Internal Resource Materials</td>
<td></td>
</tr>
<tr>
<td>O Social Work</td>
<td></td>
</tr>
<tr>
<td>O Alternative/Complementary Services</td>
<td></td>
</tr>
<tr>
<td>O Other</td>
<td></td>
</tr>
</tbody>
</table>

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If you need room to write in additional information, feel free to use the back of this form.
Plan of Care:

Initial Visit to Day of Surgery

PATH OF THE PATIENT

1. Intake
   - “Know Me”
   - My VM
   - Record Gathering

2. Contact with Surgical Team
   - Meet the team
   - Overview of Diagnosis
   - Review Plan of Care
   - Review Tool Kit
   - Schedule Surgery

3. Follow up Phone Calls
   - Pre-Anesthesia Nurse Call
   - Care Manager - Education Follow-Up

4. Boarding Pass Call
   - Check In Time
   - Location
   - Review surgery prep instructions

5. Day of Surgery

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Virginia Mason
Each Person. 
Every Moment. 
Better Never Stops.
Plan of Care:
Day of Surgery

Check-In
(Hospital Surgery Center, Central Pavilion Level 6)
Family directed to waiting room

Patient and family or designated caregiver is escorted to the Surgical Prep Area

Approximately 30 – 90 minutes of preparation

Change to gown

Talk with medical team

Receive medications

Surgery begins (procedure length varies)

Patient is transported to the Operating Room

Patient is transported to the Recovery Room

Family is notified when patient is in recovery

Physician speaks with family

Patient transported to hospital room or discharged to go home

Virginia Mason
Normal Glucose within 24 hours post-op

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Pre-ERAS</th>
<th>Post-ERAS</th>
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<tbody>
<tr>
<td>Whipple</td>
<td></td>
<td>90%</td>
</tr>
<tr>
<td>Distal Pancreatectomy</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Liver Resection</td>
<td>20%</td>
<td>80%</td>
</tr>
</tbody>
</table>
Pancreatic Cancer Care
at Virginia Mason

Meet our team
Biographies and video interviews of our physicians are available at VirginiaMason.org.

Gastroenterology
- Shann Hart, MD
- Richard Kocanev, MD
- Rajesh Kolhe, MD
- Michael Larson, MD
- Joanna Leu, MD
- Andrew Ross, MD

Medical Oncology
- Hagen Earle, MD
- Bruce Lin, MD
- Vincent Ploetz, MD
- Robert Crane, MD
- Elehana Fochtan, MD
- Patrick March, MD
- Alvin Ancr, ARNP

Interventional Radiology

Pancreatic Cancer Surgery
- Thomas Behr, MD
- Scott Helfen, MD
- Frank Roza, MD
- Jodi Benjamin, RD
- Son Loe, RN

Radiation Oncology

Pancreatic Cancer Nutrition

Radiology
- Daniel Czer, MD, PhD
- Paul Sicuro, MD
- Russell Donor, MD
- Christopher Gault, MD

Pathology

Oncology Social Workers
- Kelly Christiansen, MSW, LICSW
- Stacy Martin, MSW, LICSW
- Kathryn Swagele, MSW
- Mark Bowers, MD
- Ted Dracopoulos, MD
Outreach
USA Referral Map
<table>
<thead>
<tr>
<th>2019</th>
<th>#Patients</th>
<th>#Operations (%)</th>
<th>Liver</th>
<th>Pancreas</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>June</td>
<td>8</td>
<td>6 (75)</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>July</td>
<td>4</td>
<td>3 (75)</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>August</td>
<td>7</td>
<td>3 (43)</td>
<td>4</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>September</td>
<td>8</td>
<td>5 (63)</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>October</td>
<td>5</td>
<td>2 (40)</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>November</td>
<td>8</td>
<td>4 (50)</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>December</td>
<td>6</td>
<td>3 (50)</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
Alaska Outreach
Advocacy
Advocacy Groups
Many Asia prevalent tumours are orphan in West

Tumor types that are prevalent in Asia but orphan diseases in the West

- Studies run in Asia where the majority of patients live
- Data is leveraged for approvals in US, EU and other global markets where often these are orphan diseases
- Few – if any – approved therapies for these indications

Slide Courtesy: Bertil Landmark, Aslan Pharmaceuticals
Khon Khaen University, Thailand
2018 2\textsuperscript{nd} AP Conference, Bangkok, Thailand
Satellite meetings in Busan, Korea and Shanghai, China
3rd Asia-Pacific Cholangiocarcinoma Conference

Mar. 15-16, 2019
Taipei, Taiwan
Liver Cancer Institute, Fudan University

Department of Hepatic Surgery
Department of Hepatic Oncology

100,600 outpatients, 4,200 operations in 2016
5-year survival rate of 52% (surgical treatment)
Over 1000 cases of 10-year plus survival
THE PATIENT PERSPECTIVE TO CANCER CARE: BETTER ALIGNING PHYSICIAN EXPECTATIONS WITH PATIENTS’ WISHES

MELINDA BACHINI
CCF ADVOCACY COORDINATOR

Cassadie Moravek, Stacie C. Lindsey, Julie Fleshman, Flavio G. Rocha, Shishir K. Maithel

46 question survey

1,011 patients completed
Q13 Does your support network affect your decision-making in treatment options?
Q22 Would you have surgery even if there was no chance for cure?
Q27 If yes, how long would you be willing to endure the severe side-effects to increase your survival time?
Q46 Would you be willing to participate in a clinical trial even if you receive a placebo ("sugar pill")?
Goals for treatment

1) Identify earlier stage disease
   Screen at risk and underserved populations
   timely diagnosis and multidisciplinary evaluation

2) Provide highest quality surgical and medical care
   Expand candidate pool for curative therapy
   Reduce operative morbidity, enhance recovery and deliver chemotherapy/XRT with minimal toxicity

3) Novel therapeutics
   Develop more effective locoregional/systemic regimens
   Test thru clinical trials for all stages of disease
Goals for the system

• Evaluate processes regularly
  – Always look to improve and innovate
  – Seek feedback from stakeholders
  – Adapt to changing conditions and environment

• Engage advocacy groups
  – Help design trials
  – Reach out to target audience
  – Provide content for discussion boards/support groups

• Expand outreach
  – Offer consultative/CME services
  – Virtual tumor boards
  – Smooth referral/navigation process