Development of a Clinical and research program in Pancreatic Cancer

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BC Cancer Agency

The Problem

- By 2020 Pancreatic Cancer (PDAC) will be the second leading cause of cancer death.
- 5-year survival is worst of any cancer
  - (Canada: 8% vs 5% 20 years ago)
- Patients with advanced PDAC often sick
  - Biliary obstruction; Gastric obstruction
  - Pain, fatigue, VTE…
**Pancreatic Cancer – Survival by KPS Score**

<table>
<thead>
<tr>
<th>KPS Subgroup</th>
<th>ABRAXANE/Gemcitabine</th>
<th>Gemcitabine</th>
<th>Hazard Ratio</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Death/n (%)</td>
<td>Median OS 95% CI (months)</td>
<td>Death/n (%)</td>
<td>Median OS 95% CI (months)</td>
</tr>
<tr>
<td>100</td>
<td>49/69 (71)</td>
<td>12.6 (9.6, 14.9)</td>
<td>43/69 (62)</td>
<td>10.9 (7.5, 13.5)</td>
</tr>
<tr>
<td>90</td>
<td>138/179 (77)</td>
<td>8.9 (7.9, 10.1)</td>
<td>169/199 (85)</td>
<td>7.1 (6.5, 8.7)</td>
</tr>
<tr>
<td>80</td>
<td>114/149 (77)</td>
<td>8.1 (7.4, 9.6)</td>
<td>115/128 (90)</td>
<td>5.6 (4.2, 6.6)</td>
</tr>
<tr>
<td>70</td>
<td>28/30 (93)</td>
<td>3.9 (2.3, 5.5)</td>
<td>31/33 (94)</td>
<td>2.8 (1.8, 4.0)</td>
</tr>
</tbody>
</table>

*Patients with impaired performance status don’t do well*

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**Delays in diagnosis and treatment.**

- **Virginia Mason Data**
  - Median time from first provider to tissue diagnosis: 35 days,
  - Median time from diagnosis to treatment was 21 days.
  - Median time from symptom to treatment: 112 days
  - 19% experienced a delay of 6 months or longer.

- **PMH Data**
  - Onset of symptoms → Diagnostic tests (CT/US)
    - **Average: 31 days.** Ranged from 2 days to 5 months
  - Onset of symptoms → Appointment at cancer centre
    - **Average: 70 days.** Ranged from 7 days to 7 months
Survival in Advanced Pancreatic Cancer

First line chemotherapy – ECOG 0/1

<table>
<thead>
<tr>
<th>1990: Pre- Gemcitabine</th>
<th>1995 Gemcitabine</th>
<th>Gemcitabine + Abraxane</th>
<th>FOLFIRINOX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median (mos)</td>
<td>4.5</td>
<td>6.5</td>
<td>8.7</td>
</tr>
<tr>
<td>1-year</td>
<td>2%</td>
<td>20%</td>
<td>35%</td>
</tr>
<tr>
<td>2-year</td>
<td>&lt;1%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>3-year</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Progress has been slow.

Randomised phase III trials in pancreatic cancer (median overall survival in months)

<table>
<thead>
<tr>
<th>Gem ±</th>
<th>Gem + X</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gem ± Marimastat (2002)</td>
<td>5.5</td>
<td>5.5</td>
</tr>
<tr>
<td>Gem ± 5-FU bolus (2002)</td>
<td>5.4</td>
<td>6.7</td>
</tr>
<tr>
<td>Gem ± Tipifarnib (2004)</td>
<td>6.0</td>
<td>6.4</td>
</tr>
<tr>
<td>Gem ± 5-FULV (2005)</td>
<td>6.2</td>
<td>5.9</td>
</tr>
<tr>
<td>Gem ± Oxaliplatin (2005)</td>
<td>7.1</td>
<td>9.0</td>
</tr>
<tr>
<td>Gem ± Cisplatin (2006)</td>
<td>6.0</td>
<td>7.5</td>
</tr>
<tr>
<td>Gem ± Exatecan (2006)</td>
<td>6.2</td>
<td>6.7</td>
</tr>
<tr>
<td>Gem ± CPT-11 (2006)</td>
<td>6.6</td>
<td>6.3</td>
</tr>
<tr>
<td>Gem ± Pemetrexed (2006)</td>
<td>6.3</td>
<td>6.2</td>
</tr>
<tr>
<td>Gem ± Capecitabine (2007)</td>
<td>7.3</td>
<td>8.4</td>
</tr>
<tr>
<td>Gem ± Erlotinib (2007)</td>
<td>5.9</td>
<td>6.4</td>
</tr>
<tr>
<td>Gem ± Oxaliplatin (2008)</td>
<td>7.1</td>
<td>9.0</td>
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<td>Gem ± Oxaliplatin (2009)</td>
<td>4.9</td>
<td>5.9</td>
</tr>
<tr>
<td>Gem ± Bevacizumab (2009)</td>
<td>6.1</td>
<td>5.8</td>
</tr>
<tr>
<td>Gem ± Capecitabine (2009)</td>
<td>6.0</td>
<td>7.4</td>
</tr>
<tr>
<td>Gem ± Cetuximab (2010)</td>
<td>5.9</td>
<td>6.4</td>
</tr>
</tbody>
</table>

We have done lots of large (mainly negative) trials
What can we do today?

- Improve the Patient Experience
- Have an effective research strategy
It all starts with a sense of urgency

Patient Centred Care

- "Providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions."
- Shared decision making.
- Listening to what patients are saying…
The McCain Centre for Pancreatic Cancer
Princess Margaret Cancer Centre

- Wallace McCain was diagnosed with pancreatic cancer in 2010 and treated at The Princess Margaret
- Donated $5 million to The Princess Margaret to establish The Wallace McCain Centre for Pancreatic Cancer
- Goal: improve diagnostic and total experience for pancreatic cancer patients and their families
Setting up the McCain Program

- Hire dedicated nurse, admin, research coordinator
- Organize work around the patient.
- Team approach.
- Develop standards
  - Referral
  - Standardized Triage
  - Integrate multimodalities
  - Realigned clinics.
  - MDs seeing only PC
  - Diagnostic workup (Medical Imaging, IR, ERCP/EUS)
  - Links w/ various teams for all supportive care needs

McCain Program

- Contact within 48 hours of referral
- Standardized flow for all patients
- Improve wait times for diagnostic workup
- Reduce clinic visits and number of professionals
- Information and support for patient and family.
- Supportive care services discussed upfront and ongoing connections (SW, Dietician, Supportive Care)
- ‘One stop’ Clinic – Surg/Med/Rad Onc consults
- All new patients taken to MCC same day
- Research Coordination
The Team

Oncologists
Nurses
Social Work
Dietician
Psychosocial
Palliative Care
Admin Assistant
Gastroenterologist
Patient/Family
Specialists based on need

Pancreas Cancer Portfolio

FAZA
PANCRIT
GVAX
IMMUNOCARDIOLOGIST
MM-141
OPCS/Gene Panel
Phase I

M018
CALM
Rapid Autopsy
ICGC
POLO
Xeno-Met Panc

McCain Research Program
## Advanced Practice Nurse

### Clinical Practice
- Triage referrals, connect with patients/family pre consultation
- Participation in New patient clinic, follow up clinics
- Inter-professional Clinic (RN, SW Dietitian, Pall Care)
- Case Manage complex patients
- Navigation, plan of care

### Education
- Patient/family and staff

### Leadership
- Clinic structure, function, MCC rounds, Pain and symptom management, Advanced Care Planning

### Consultation and Collaboration
- Internal, external (Regional Centres, Pall Care, Primary Care, Home care)

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## McCain Centre - Metrics (2014)

- Patients seen in consultation: 361.
- MedianTime: Referral to Consult (days): 5
- Median Time to Biopsy (days): 6
- Median Time to imaging (days): 4
- Patients treated on a clinical trial: 42%.
- Patient consent to “tissue/blood” studies: 90%.
- Patient & Family satisfaction high.
- 39% of patients with *advanced* disease had no tissue diagnosis at time of referral.
Metrics 2015

Total Referrals Received
In 2015 = 402

- Medical Oncology: 151
- Surgical Oncology: 120
- Combined Assessment: 78

73 Surgeries for Suspected PDAC (16 open/closes – 12%)

Referrals declined/pt not seen: 53

Conclusions

- The needs of the patient with pancreatic cancer require a specialized team.
- We need to focus on the patient experience as well as treatment.
- If we want to accelerate progress
  - Overall research strategy should be coordinated.
  - We need to learn from every patient we treat.
Interdisciplinary Care at Pancreas Centre BC

Carolyn Hoeschen, BCCA Nurse Practitioner
Pancreas Centre BC

- Pancreas Centre BC began in 2012, and has since grown into a multi-disciplinary team across several centres in Vancouver
- Team includes medical specialists, medical and radiation oncology, hepatobiliary surgeons, allied health clinicians and researchers
- Developed partnerships with donors, foundation leaders, various levels of government and other oncology centres

Strengthening our Service

- 100 new patient referrals / year
- Time from referral to GI NP = 18 days
- Triage to Med Oncologist (2-4/10)
  - Consideration for trials
  - Arrive with the information we need (scans, labs)
  - Pre-book: ports, chemo
- Weekly interdisciplinary rounds
- Direct communication and streamlining referrals
Day in the Life

- Clinics
- Collaboration with Allied Health
- Team member
- Autonomous
- Full Scope
- Primary Care
- Disease or treatment related
- Education & anticipatory guidance
- Psycho-social Support

Case Study

- 71 yo woman, PMHx HTN, Diverticulosis, H pylori
- End of April 2016 - Presented with 1-day history obstructive jaundice, Bilirubin 200
- CT scan - Mass head of pancreas
- PET scan - regional lymphadenopathy, extending into D2, right and left hepatic lobes, pulm nodes
- Percutaneous transhepatic biliary drain/stented
- Med Onc consult June 15, 2016 – Started Gem/Abraxane
- Anxious, very involved family
Case Study

- Multiple failed ERCP due to duodenal stricture
- Treated for esophageal thrush
- Admitted to hospital - neutropenia (afebrile)
- Admitted to hospital - pain and fatigue
- Delayed chemo d/t stent occlusion, chemo-induced hepatitis, neutropenia, thrombocytopenia
- Transfusion 2 units PRBC
- Dietitian, Pain & Symptom Mgmt team
- Hereditary Cancer Program - sister PDAC

Beyond the Clinic

Pancreatic Cancer Education Day

- “A Day for Hope”
- Both clinicians and patients/care givers
- Watch our website for more information and past presentations (pancreascentrebc.ca)

Hereditary Cancer Program

- Indication of hereditary component (BRCA1/2, PALB2)
- Pancreatic arm with a dedicated genetic counsellor
- Expanded genetic testing
The patient experience

- Early direct contact
- Improve access and maintain continuity of care
- Holistic, patient-centred care
- Support the transition for patients/families from active treatment to best supportive and end-of-life care.

Thank you!

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