# 4th Annual Patient and Family Centered Care For Pancreatic Disease

Saturday, October 17, 2020

10:00 am – 1:00 pm • Virtual Meeting *(due to Covid-19)*

| | |
|---|---|
| 10:00 am | **Welcome**<br>*Matthew DiMagno, MD - Course Director* |
| 10:10 | **MM Comprehensive Pancreas Program Updates**<br>*Richard Kwon, MD* |
| 10:20 | **NPF Michigan Chapter Updates**<br>*Robin Winke, LMSW* |
| 10:30 | **Clinical Problem - Diabetes**<br>*Erik-Jan Wamsteker, MD* |
| 10:35 | **Patient Testimony** |
| 10:45 | **Keynote Presentation: Diabetes Treatment**<br>*Jen Wyckoff, MD* |
| 11:00 | **Panel Discussion** |
| 11:30 | **Break** |
| 1145 | **Clinical Problem - Pain**<br>*Matthew DiMagno, MD* |
| 11:50 | **Patient Testimony** |
| 12:00 pm | **Research: Cannabis for pain**<br>*John Wiley, MD* |
| 12:10 | **Keynote Presentation: Behavioral Therapy**<br>*Megan Riehl, PsyD* |
| 12:25 | **Panel Discussion** |
| 12:55 | **Questions/Answers** |
| 1:00 | **Adjourn** |

**Pre-registration required by October 1st, 2020**

To Register: **http://michmed.org/9ap2x**

To Donate: **https://michmed.org/xo12W**

To Register

To Donate

The National Pancreas Foundation
Michigan Chapter

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4TH ANNUAL
**Patient and Family Centered Care for**
# PANCREATIC DISEASES
OCTOBER 17, 2020

## *Syllabus Table of Contents*



### *Part I. Diabetes*



### *Part II. Pain*

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## *About this Event*

On *October 17, 2020* **Michigan Medicine and the National Pancreas Foundation Michigan Chapter** will host the 4th Annual Patient and Family Centered Care for Pancreatic Diseases educational event. Due to the ongoing Covid-19 pandemic, we will host a virtual rather than an in person program.

Our patient and family education events serve as an opportunity to bring healthcare professionals and experts in pancreas disease in contact with patients and caregivers in an informal setting to enable the sharing of information on new developments in the treatment and care of pancreas disease.

The main goals are to increase understanding of the relationship between diabetes and both pancreatitis and pancreatic surgery; ways to improve/maintain control blood sugars; causes of abdominal pain in pancreatic disorders; and the role of cannabis and behavioral therapy in personalized management of pain. We will also discuss updates and resources available at the Michigan Medicine Comprehensive Pancreas Program and the National Pancreas Foundation (NPF) Michigan Chapter.

Jennifer Wyckoff, M.D., Associate Professor of Medicine, Division of Endocrinology, Michigan Medicine, will deliver the first keynote address, entitled, Diabetes Treatment (in those with pancreatic disorders).

John Wiley, MD, Professor of Medicine, Division of Gastroenterology, Michigan Medicine, will discuss new research data on Cannabis for Pain.

Megan Riehl, PsyD, Assistant Professor of Medicine, Division of Gastroenterology, Michigan Medicine, will deliver the second keynote address, entitled, Behavioral Therapy for Pain.

The event is free and open to all physicians, patients and caregivers. Please register by October 1, 2020.

**Consider Donating to the 5th Annual Educational Event (Fall, 2021)**

https://leadersandbest.umich.edu/find/#!/give/basket/fund/331933

**Event Partners**

Michigan Medicine Comprehensive Pancreas Program

National Pancreas Foundation - Michigan Chapter

AbbVie

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## *Speaker Biographies*

***Matthew J. DiMagno, MD** is Associate Professor of Internal Medicine, Division of Gastroenterology, Michigan Medicine, University of Michigan, where he has been faculty since 2001. He is a Pancreatologist with a clinical focus and research in pancreatitis, exocrine pancreatic insufficiency, cystic fibrosis related GI disorders, and other pancreatic disorders. He is author/co-author of over 65 peer-reviewed publications and book chapters. His research of acute and chronic pancreatitis has been funded by the National Institute of Health. He recently served as Chair of the American Gastroenterological Association Institute Council Pancreatic Disorders Section Committee. Currently he serves Director of the Michigan Medicine Comprehensive Pancreas Program in Gastroenterology, Gastroenterology Director of the Michigan Medicine Cystic Fibrosis Center and Course Director of the 4th Annual Patient and Family Centered Care for Pancreatic Diseases.
**Medical Director, The National Pancreas Foundation Michigan Chapter*

***Richard Kwon, MD** is Associate Professor of Internal Medicine, Division of Gastroenterology, Michigan Medicine, University of Michigan, where he has been faculty since 2005. He is a pancreatologist and interventional endoscopist with clinical expertise in pancreatic cystic neoplasms, pancreatic cancer, as well as, acute and chronic pancreatitis. He has authored/coauthored over 20 papers on the role of endoscopy and technology in the management of cystic neoplasms, pancreatic cancer, as well as, complications of both acute and chronic pancreatitis. He has received grant funding for studies related to pancreatic cystic neoplasms. He is an active member of multiple major pancreatic and GI associations.
**Board Member, The National Pancreas Foundation Michigan Chapter*

**Robin Winke, LMSW** attended Michigan State University where she was awarded her Master's Degree in Social Work and certificate in Family Counseling. She completed her undergrad at Oakland University and has a Business degree. She is a therapist at Wink Counseling, P.C., located in Troy. Her focus is on older adults, chronic illnesses, and family dynamics. Her volunteer experience includes crisis counseling, transitional housing advocate and other local service programs for older adults.
**Chair, The National Pancreas Foundation Michigan Chapter. She is personally responsible for launching the chapter and establishing a monthly support group meeting. She is married to Derrick Winke, a survivor of pancreatitis.*

***Erik Jan Wamsteker, MD** is Associate Professor of Internal Medicine, Division of Gastroenterology, Michigan Medicine, University of Michigan, where he has been faculty since 2002. His clinical focus is in the diagnosis and treatment of patients with benign and malignant pancreatic diseases and performs therapeutic endoscopic procedures on patients with pancreatic disorders and their complications. He serves on national committees where he specifically focuses on the dissemination of new knowledge and education through the creation and updating of guidelines in pancreatic diseases through the American Gastroenterological Association (AGA) and the American College of Gastroenterology (ACG) and as a counselor for the pancreatic disorders section of the AGA for Digestive Disease Week.
**Board Member, The National Pancreas Foundation Michigan Chapter*



***Georgiann Z.** We are fortunate to have the opportunity to hear about the remarkable experiences of Georgiann Z, a patient who receives care at Michigan Medicine from Dr. Anderson. Until she began her journey with pancreatic disease she was employed by United Auto Workers. Currently she serves as a patient advisor on numerous committees and boards at Michigan Medicine, all aimed at improving the lives and experiences of patients. These include the Patient and Family Centered Care Committee; Emergency Department and Hospital 6B Unit Committees; Doctoring Program (mentoring 1st year Medical students), Cardiovascular Center Executive Board Committee, Michigan Institute for Clinical and Health Research review committee, Medicare Beneficiary Chair, and Ambassador to the Patient-Centered Outcomes Research Institute (PCORI)
**Board Member, The National Pancreas Foundation Michigan Chapter*

**Jennifer Ann Wyckoff, MD** is Associate Professor of Internal Medicine and the Associate Clinical Chief of the Division of Metabolism, Endocrinology and Diabetes (MEND), Michigan Medicine, University of Michigan. Dr. Wyckoff also serves as the Medical Director for the Adult Diabetes Education Program and the Director of the Endocrine Disorders in Pregnancy program in MEND. Her clinical and research interests include various aspects of diabetes, including insulin pumps, patient education, diabetes and pregnancy, cystic fibrosis related diabetes and transplant related diabetes.

**John Wiley, MD** is Professor of Internal Medicine, Division of Gastroenterology, Michigan Medicine, where he has been faculty since 1987. His clinical focus is the gut-brain axis, gastrointestinal motility disorders with particular interest in the Irritable Bowel Syndrome, diabetes mellitus and the effects of aging on the GI tract. His research is funded by the National Institute of Health and focuses on pain mechanisms, including endocannabinoids and cannabis on neurotransmitter regulation of ion channels in health and disease. He has served in numerous leadership roles within Michigan Medicine and Nationally including President, American Neurogastroenterology & Motility Society and Chair, American Gastroenterological Association Institute Council, Neurogastroenterology & Motility Section.

**Megan Riehl, PsyD** is Assistant Professor of Internal Medicine, Division of Gastroenterology, Michigan Medicine, University of Michigan. As a GI psychologist she specializes in the treatment of GI problems and anxiety-related disorders. She is the Clinical Director of the GI Behavioral Health Program at the University of Michigan. At Michigan Medicine, Dr. Riehl has a robust clinical practice, conducts research in the area of psychogastroenterology and offers a state of the art GI psychology training program in the form of a formal post-doctoral fellowship or brief trainings for mental health providers. She is the Director of Behavioral Health Services and Support for Gastro Girl, INC and GI OnDemand. Dr. Riehl is the co-chair for the ROME Foundation Psychogastroenterology Education and Training committee, participates on two national committees pertaining to the psychosocial aspects of IBD with the Crohn's and Colitis Foundation and sits on the Membership and Mentorship committee with the American Neurogastroenterology and Motility Society.



## *Abbreviations*

**ACT,** acceptance and commitment therapy

**AGAF,** American Gastroenterological Association Fellow

**ATA,** accredited tax advisor

**ATP,** accredited tax preparer

**CAP,** certified administrative profession

**CBD,** cannabidiol

**CBT,** cognitive behavioral therapy

**CDE,** certified diabetes educator

**CF,** cystic fibrosis

**CGM,** continuous glucose monitor

**CME,** continuing medical education

**COE,** center of excellence

**CP,** chronic pancreatitis

**CT,** computed tomography (CAT scan)

**DM,** diabetes mellitus

**EPI,** exocrine pancreatic insufficiency

**ERCP,** endoscopic retrograde cholangiopancreatography

**EUS,** endoscopic ultrasonography

**FACS,** Fellow, American College of Surgeons

**FASGE,** Fellow American Society Gastrointestinal Endoscopy

**GE,** gastroenterologist

**GI,** gastrointestinal

**GP,** general practitioner

**HFE gene,** high FE2+ gene (hemochromatosis gene)

**IBD,** inflammatory bowel disease

**LMSW,** Licensed Master Social Worker

**MBA,** Master of Business Administration

**MCT,** medium chain triglycerides



**MD,** Doctor of Medicine

**MM,** Michigan Medicine

**MPH,** Master of Public Health

**MRI**, magnetic resonance imaging

**MSc,** Master of Science

**NIH,** National Institutes for Health

**NPF,** National Pancreas Foundation

**PA,** physician assistant

**PD,** pancreatic duct

**PhD,** Doctor of Philosophy

**PERT,** pancreatic enzyme replacement therapy

**PsyD,** Doctor of Psychology

**QOL,** quality of life

**RD,** registered dietician

**REE,** resting energy expenditure

**SIBO,** small intestinal bacterial overgrowth

**THC,** tetrahydrocannabinol



## *Weblinks*

**Michigan Medicine, *Comprehensive Pancreas Program – Gastroenterology***

- https://medicine.umich.edu/dept/intmed/divisions/gastroenterology-hepatology/programs/comprehensive-pancreas-program
- Appointments: 888-229-7408 (www.UofMHealth.org/gi)

*To donate*

- https://michmed.org/xo12W

**Michigan Medicine, *Pancreatic Cancer Clinic – Cancer Center***

- https://www.rogelcancercenter.org/pancreatic-cancer/clinic
- https://pancreas.med.umich.edu/

**National Pancreas Foundation, Michigan Chapter**

*Home page – board, educational events, support group meeting*

- https://pancreasfoundation.org/state-chapters/michigan/

*To donate*

- http://bit.ly/MichDonation

**National Pancreas Foundation (NPF)**

*Home page*

- https://pancreasfoundation.org/

*NPF Centers of Excellence*

- https://pancreasfoundation.org/npf-centers-info/

*State chapters*

- https://pancreasfoundation.org/state-chapters/

*About the pancreas*

- https://pancreasfoundation.org/patient-information/about-the-pancreas/

*Animated pancreas patient*

- https://pancreasfoundation.org/patient-information/animated-pancreas-patient/

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## *Attendee Action Items: Pre- and Post-Event Surveys*

### Complete 5 days before program

- Complete all true/false question to be entered into a random drawing for prizes.

**Please circle true or false for each question**

| | | | |
|---|---|---|---|
| 1. **Kwon** | Michigan Medicine is the only National Pancreas Foundation Center in Michigan | **True** | **False** |
| 2. **Winke** | The NPF Michigan chapter has support group meetings once per month | **True** | **False** |
| 3. **Wamsteker** | Diabetes mellitus is rare in patients with chronic pancreatitis or cancer | **True** | **False** |
| 4. **Wyckoff** | Patients with diabetes and chronic pancreatitis always require insulin | **True** | **False** |
| 5. **DiMagno** | Abdominal pain is present in all patients with chronic pancreatitis | **True** | **False** |
| 6. **Wiley** | Cannabis relieves pain in the majority of patients with chronic pancreatitis | **True** | **False** |
| 7. **Riehl** | Behavioral therapy for pain is under-utilized in patient with chronic pancreatitis | **True** | **False** |

**Please submit questions you have for above presenters to answer during the panel discussions**

Questions about diabetes: _____

_____

Questions about pain: _____

_____

Questions about Cannabis: _____

_____

Questions about behavioral therapy: _____

_____

Other questions: _____

_____

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## Complete within 5 days after program

- Complete all true/false question to be entered into a random drawing for prizes.

### Please circle true or false for each question

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| 7. **Riehl** | Behavioral therapy for pain is under-utilized in patient with chronic pancreatitis | **True** | **False** |

### Please evaluate the overall quality of program below

| | | | | | |
|---|---|---|---|---|---|
| This event increased my knowledge | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree |
| This event was valuable to me | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree |
| I will attend next year's event? | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree |

What topics are interesting to you? Please rank from 1 (preferred) to 9 (least preferred)

a. Abdominal pain: _____ (1-9)
b. Pancreatic enzymes: _____ (1-9)
c. Nutrition: _____ (1-9)
d. Diabetes: _____ (1-9)
e. Pancreatic cancer: _____ (1-9)
f. Pancreatic cysts: _____ (1-9)
g. Pancreatic surgery: _____ (1-9)
h. Endoscopic procedures: _____ (1-9)
i. Other: _____ (1-9)
*If "other" please list here*: _____

**Mark Your Calendar Oct 9, 2021**


5TH ANNUAL

**Patient and Family Centered Care for**

# PANCREATIC DISEASES

Saturday, OCTOBER 9, 2021
10:00 am – 1:00 pm
The Inn at St John's, Plymouth, Michigan

The National Pancreas Foundation

***Future Events Planned After Covid-19***

THE DR. RAMESH KUMAR FOUNDATION & THE BELEN FENKELL FAMILY PRESENTS

# DINE IN & TAKE CANCER OUT

Proceeds: Portion of revenue goes to the Dr. Ramesh Kumar Foundation and the National Pancreas Foundation of Michigan

Pancreatic Cancer has been underfunded for decades and receives less than 2% of overall cancer research funding.

Pancreatic Cancer has the lowest survival rate of all major cancers.

Pancreatic Cancer affects men and women equally.

**Free Entrance**
**Feburary 15, 2020**
**10 AM till CLOSE | The MORRIE**
The program will start at 7:30 pm
Brunch: 10 am to 4 pm
Dinner: 4 pm till 12 am

THE MORRIE
FOOD + DRINK + MUSIC
511 S. Main Street
Royal Oak, MI 48067

For more information or to RSVP:
Please email info@drrkfoundation.org
kschofield@afbhospitalitygroup.com

AFB HOSPITALITY GROUP

4TH ANNUAL

# Patient and Family Centered Care for PANCREATIC DISEASES

OCTOBER 17, 2020

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| 10:00 am | **Welcome**<br>*Matthew DiMagno, MD - Course Director* |
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## *Part I. Diabetes*

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|---|---|
| 10:30 | ***Clinical Problem - Diabetes***<br>*Erik-Jan Wamsteker, MD* |
| 10:35 | **Patient Testimony** |
| 10:45 | **Keynote Presentation: Diabetes Treatment**<br>*Jen Wyckoff, MD* |
| | **Panel Discussion** |

## *Part II. Pain*

| | |
|---|---|
| 11:45 | ***Clinical Problem - Pain***<br>*Matthew DiMagno, MD* |
| 11:50 | **Patient Testimony** |
| 12:00 pm | ***Research*: Cannabis for pain**<br>*John Wiley, MD* |
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The National Pancreas Foundation

## Live Webinar Broadcast
## University of Michigan Medical Campus

# Welcome

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**Matthew J. DiMagno, MD**
Associate Professor of Medicine
Division of Gastroenterology and Hepatology

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PANCREATIC DISEASES
OCTOBER 17, 2020

## BRIEF ANNOUNCEMENTS

- **Welcome !**
- **Great News! Registrations increased >3-fold compared to 2019**
- **Potential reasons for increased interest**
  - ❑ **News of the event is spreading**
  - ❑ **Program topics developed from suggestions of attendees 2019**
  - ❑ **Exceptional panel of speakers**
  - ❑ **Webinar easier for some to attend than in person meetings**

HOPE

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# BRIEF ANNOUNCEMENTS

**Webinar format required changes to the program**

- **Attendee questions submitted online**
  - ❑ **Panelists will answer selected questions submitted online before meeting**
  - ❑ **Unable to accept live questions, a strength of past programs**

- **Pre- and post-event surveys moved online**
  - ❑ **Thank you to all who completed the 7 true/false questions !**

HOPE

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# BRIEF ANNOUNCEMENTS

- **Please respond to a post-event communication**
  - ❑ **Complete 7 true/false questions a second time**
    **-> provides a measure of learning and effectiveness of speakers**
    **-> eligible for a drawing for prizes, if completed both pre- *and* post-event**
  - ❑ **Suggest topics for next years program to meet your needs**

- **Course materials**
  - ❑ **Attendees will receive access to electronic syllabus and link to Michigan Medicine YouTube video of the event**

HOPE

**Mark Your Calendar Oct 9, 2021**


5TH ANNUAL
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The National Pancreas Foundation

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# TODAY'S PROGRAM GOALS

**Updates:** Michigan Medicine Comprehensive Pancreas Program
National Pancreas Foundation Michigan Chapter

1. **Increase understanding** of the relationship between diabetes and both pancreatitis and pancreatic surgery; ways to maintain control of blood sugars

***15 min break***

2. **Highlight** causes of abdominal pain in pancreatic disorders; and the role of cannabis and behavioral therapy in personalized management of pain.

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# THANK YOU

**Partners** The National Pancreas Foundation Michigan Chapter abbvie

**Planning** Michigan Medicine Comprehensive Pancreas Program Board, NPF Michigan Chapter

*Special Thanks*: Vicky Vincent, Board Secretary

**In Memory** Mr. William Vincent

**Attendees** **Thank you for attending! Enjoy the event!**

HOPE

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# MM Comprehensive Pancreas Program Updates

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**Richard Kwon, MD**

Clinical Associate Professor

Division of Gastroenterology

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# Industry Relationship Disclosures

## *Industry Supported Research and Outside Disclosures*

- Abbvie (research)

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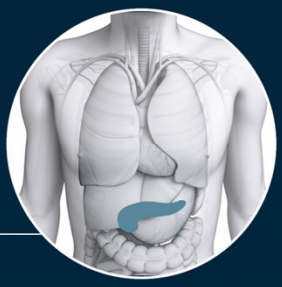
THE COMPREHENSIVE
PANCREAS PROGRAM



**ESTABLISHED 2018**

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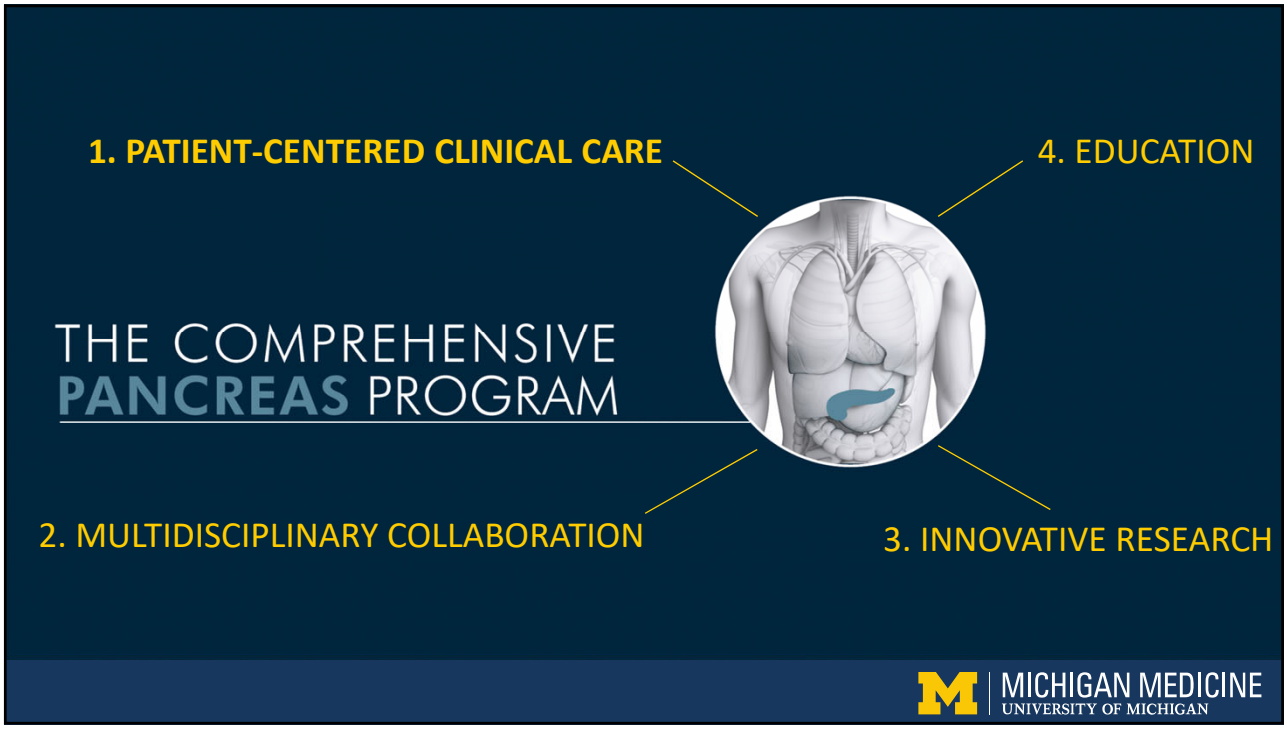
1. PATIENT-CENTERED CLINICAL CARE
4. EDUCATION
THE COMPREHENSIVE
PANCREAS PROGRAM
2. MULTIDISCIPLINARY COLLABORATION
3. INNOVATIVE RESEARCH
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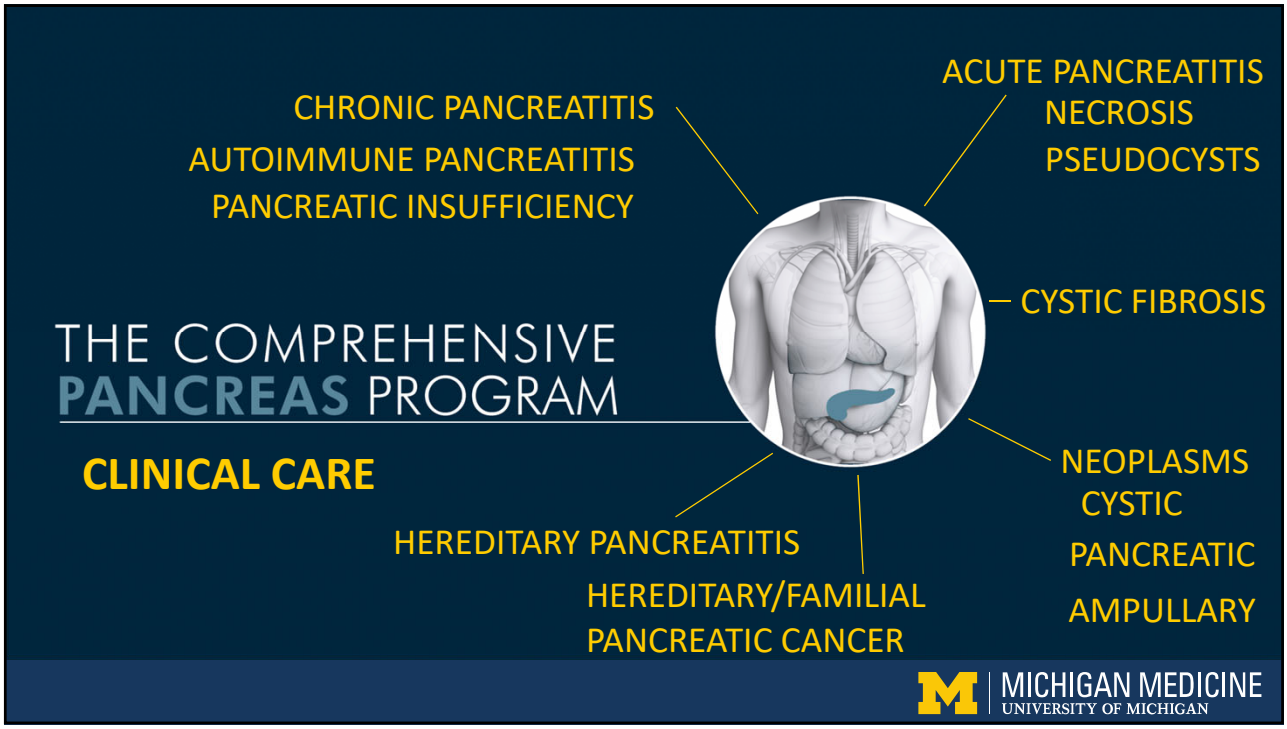
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AUTOIMMUNE PANCREATITIS
PANCREATIC INSUFFICIENCY
ACUTE PANCREATITIS
NECROSIS
PSEUDOCYSTS
CYSTIC FIBROSIS
THE COMPREHENSIVE
PANCREAS PROGRAM
CLINICAL CARE
NEOPLASMS
CYSTIC
PANCREATIC
AMPULLARY
HEREDITARY PANCREATITIS
HEREDITARY/FAMILIAL
PANCREATIC CANCER
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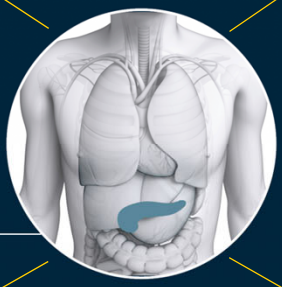
TAUBMAN CENTER

CANCER CENTER



THE COMPREHENSIVE
PANCREAS PROGRAM

**CLINICAL CARE**

WEST ANN ARBOR

GENETICS CLINIC

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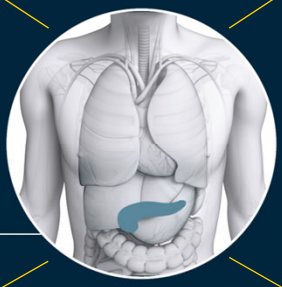
1. PATIENT-CENTERED CLINICAL CARE

4. EDUCATION



THE COMPREHENSIVE
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**2. MULTIDISCIPLINARY COLLABORATION**

3. INNOVATIVE RESEARCH

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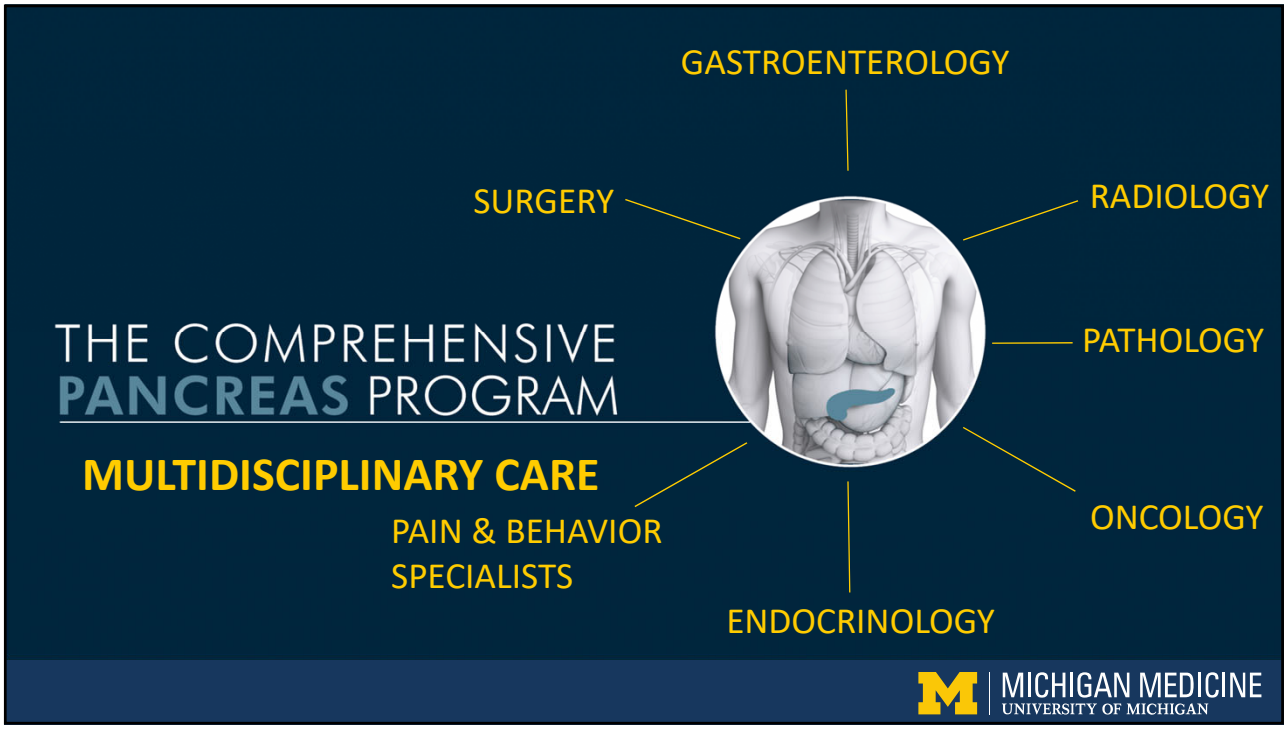
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RADIOLOGY
PATHOLOGY
ONCOLOGY
ENDOCRINOLOGY
PAIN & BEHAVIOR SPECIALISTS
THE COMPREHENSIVE PANCREAS PROGRAM
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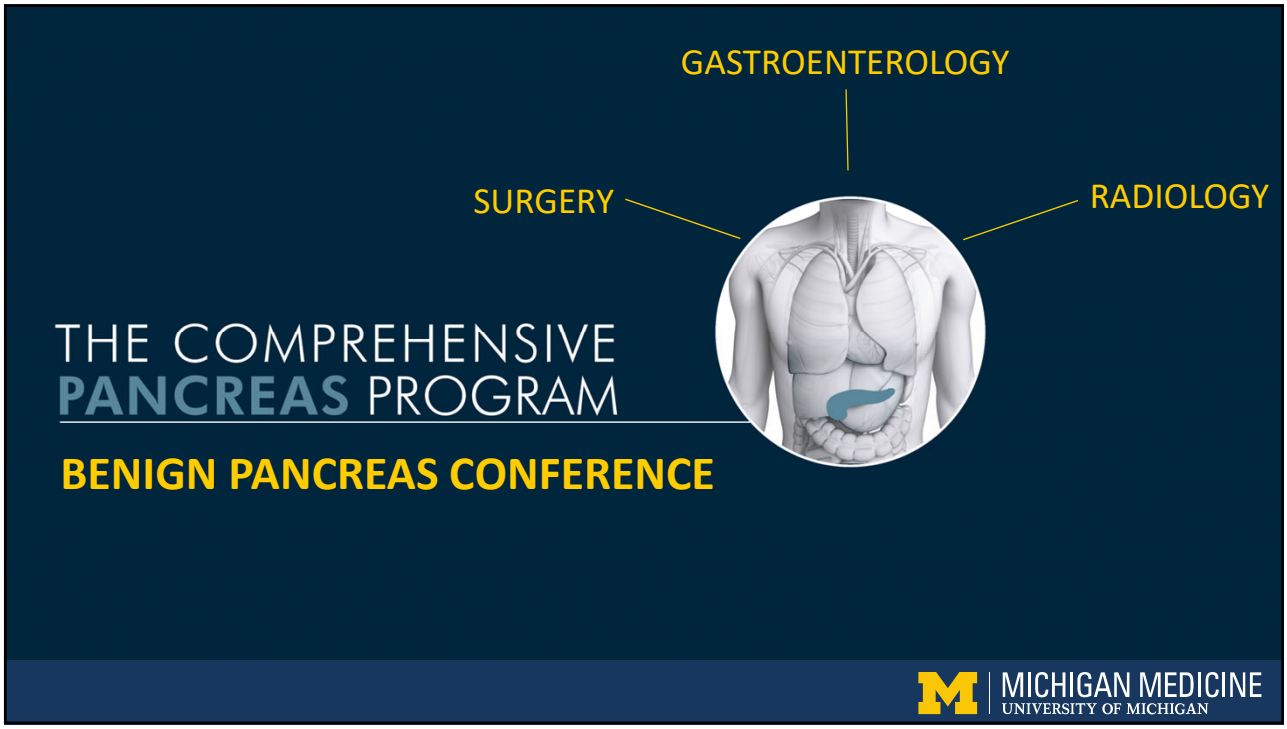
GASTROENTEROLOGY
SURGERY
RADIOLOGY
THE COMPREHENSIVE PANCREAS PROGRAM
BENIGN PANCREAS CONFERENCE
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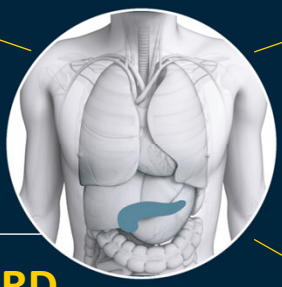
UNIVERSITY OF MICHIGAN

GASTROENTEROLOGY

SURGERY

RADIOLOGY



PATHOLOGY

THE COMPREHENSIVE
PANCREAS PROGRAM

**MULTIDISCIPLINARY TUMOR BOARD**

ONCOLOGY

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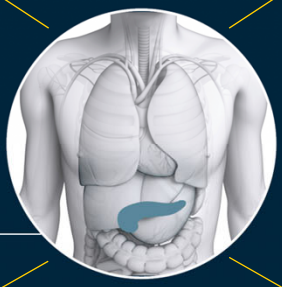
1. PATIENT-CENTERED CLINICAL CARE

4. EDUCATION



THE COMPREHENSIVE
PANCREAS PROGRAM

2. MULTIDISCIPLINARY COLLABORATION

**3. INNOVATIVE RESEARCH**

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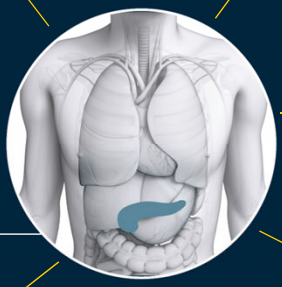
CHRONIC PANCREATITIS
PANCREATIC INSUFFICIENCY

ACUTE PANCREATITIS
NECROSIS
PSEUDOCYSTS



CYSTIC FIBROSIS

THE COMPREHENSIVE
PANCREAS PROGRAM

**INNOVATIVE RESEARCH**

NEOPLASMS
CYSTIC
PANCREATIC

HEREDITARY/FAMILIAL
PANCREATIC CANCER

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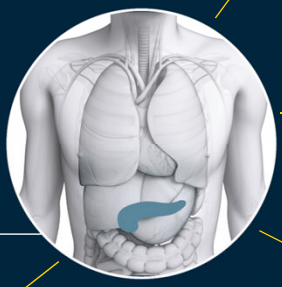
*** Study coordinator: Sarah Volk**
**phone: 734-936-5704**
**email: stomanic@med.umich.edu**

****Cancer AnswerLine: 800-865-1125**

ACUTE PANCREATITIS



CYSTIC FIBROSIS

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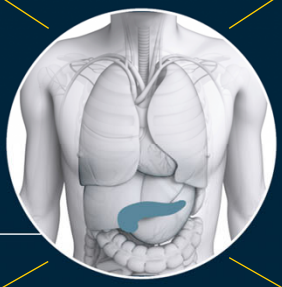

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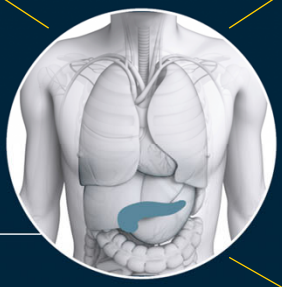
PATIENT-CENTERED EVENTS

CME



THE COMPREHENSIVE
PANCREAS PROGRAM

**EDUCATION**

MEDICAL STUDENTS
MEDICAL RESIDENTS

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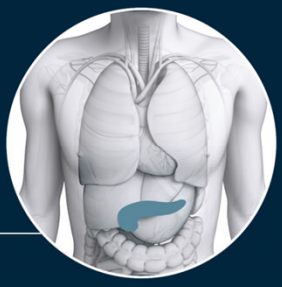
THE COMPREHENSIVE
PANCREAS PROGRAM



NATIONAL PANCREAS FOUNDATION CENTER

ONLY ONE IN MICHIGAN

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1. PATIENT-CENTERED CLINICAL CARE

4. EDUCATION

THE COMPREHENSIVE
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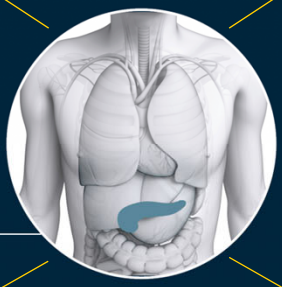

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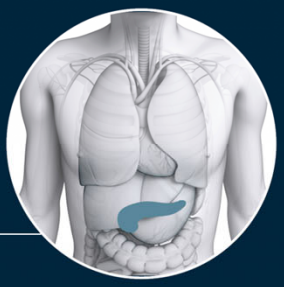

**THANK YOU**

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4TH ANNUAL

**Patient and Family Centered Care for**

# PANCREATIC DISEASES

OCTOBER 17, 2020

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The National Pancreas Foundation

# NATIONAL PANCREAS FOUNDATION MICHIGAN CHAPTER

4TH ANNUAL

**Patient and Family Centered Care for**

# PANCREATIC DISEASES

OCTOBER 17, 2020

**Robin Winke, LMSW**

Chair, National Pancreas Foundation Michigan Chapter

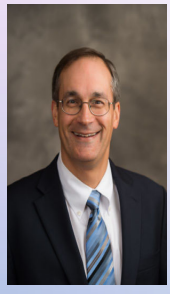
# NATIONAL PANCREAS FOUNDATION MISSION

The National Pancreas Foundation provides **hope** for those suffering from pancreatitis and pancreatic cancer through funding cutting edge **research**, **advocating** for new and better therapies, and providing **support** and **education** for patients, caregivers, and health care professionals

## FEATURED PROGRAMS

- ANIMATED PANCREAS PATIENT
- NPF CENTERS
- PATIENT SUPPORT COMMUNITY
- PATIENT EDUCATION EVENTS
- STATE CHAPTERS

# OUR STATE CHAPTERS



Dr. Matthew J. DiMagno,
MD, AGAF
NPF Medical Director


Robin Winke, LMSW
Michigan Chair

## NPF Michigan Board Members

Michelle A. Anderson, MD, MSc, FASGE
Clifford S. Cho, FACS
Richard Kwon, MD
Lance Judd
Megan Morsi, PAC
Vicky L. Vincent, CAP
Erik-Jan Wamsteker, MD
Derrick Winke, ATA, ATP, MBA
Georgiann Ziegler


## NPF CENTERS

The NPF has identified treatment centers for patient referrals based upon specific criteria. At an approved NPF Center, patients can expect excellent **multidisciplinary care** that **focuses on the whole patient** to include: experienced oncologists, gastroenterologists, surgeons, dietitians, pain specialists, psychosocial support and more.

# Support Groups

***GROUPS HELP THROUGH:***

***I. INSTILLATION OF HOPE***

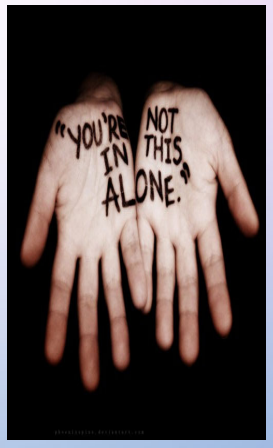
***II. UNIVERSITY***

***III. ALTRUISM***

***IV. INTERPERSONAL LEARNING***

***V. SOCIALIZING TECHNIQUES***

***VI. EDUCATION***




# *Fund Raising*

COLOR IT PURPLE CHALLENGE!

## ICE CREAM SOCIALS

PARTNERING WITH OTHER FOUNDATIONS


Yes
Volunteer
Opportunity
Host Support
Groups
Fundraising
Board members
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**Panel Discussion**

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# Clinical Problem - Diabetes

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# PANCREATIC DISEASES

OCTOBER 17, 2020


**Erik-Jan Wamsteker, MD**

Associate Professor of Medicine

Division of Gastroenterology and Hepatology

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# Industry Relationship Disclosures

## *Industry Supported Research and Outside Disclosures*

No disclosures relevant to this discussion

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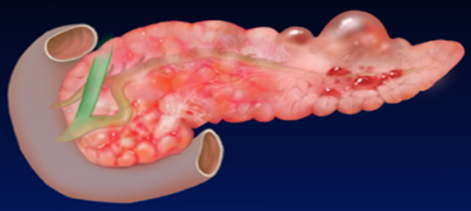
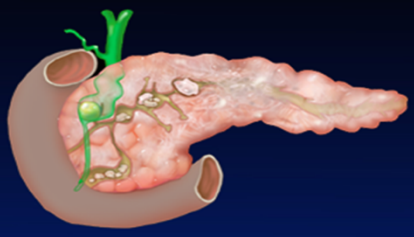
# GENERAL PRESENTATIONS OF PANCREATITIS





## Acute

- Acute inflammation
- Acute abdominal pain
- Elevated pancreatic enzymes in serum
- Self-limiting

## Chronic

- Chronic inflammation
- Recurrent or chronic abd pain
- Progressive loss of pancreatic
  - endocrine function and
  - exocrine function

*AGA Institute teaching slides*

# Pancreatic Diabetes (3c) - Definition

**Definitions**

- Diabetes is a group of disorders leading to high blood glucose (hyperglycemia)
- Type 3c diabetes is due to pancreatic disease
  - ~4-8% of all forms of diabetes, but likely underestimated

**Type 3c diagnostic criteria** (expert opinion) - **all 3 should be present**

- Fulfill diagnosis of diabetes
- A disease of the exocrine pancreas
- Diabetes is likely due to exocrine pancreatic disease

HOPE

Lancet Gastroenterol Hepatol 1(3):226-237

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# Pancreatic Diabetes (3c) - Symptoms

**Initial Presentation**

- Commonly present with symptoms from their pancreatic disease
- Less commonly present with diabetes as their initial presentation

**Key Point**: most have an established diagnosis of exocrine pancreatic disease (part of diagnostic criteria)

  - Weight loss
  - Malnutrition
  - Nausea and vomiting

HOPE

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# Pancreatic Diabetes (3c) - Frequency

**Common in exocrine pancreatic diseases such as chronic pancreatitis (particularly with long duration of disease), pancreatic cancer and others**

HOPE

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# Pancreatic Diabetes (3c) - Causes

**Reduction in insulin production resulting from**

- 79% due to chronic pancreatitis
  - Diabetes present in 20% at onset of symptoms
  - Diabetes present in >80% at 25 years
  - Diabetes risk factors in chronic pancreatitis
    - ✓ Smoking
    - ✓ Previous pancreatic surgery
    - ✓ Presence of pancreatic calcifications on imaging
- 4% due to cystic fibrosis
- 2% due to previous pancreatic resection surgery

**Insulin resistance**

- 8% due to pancreatic cancer
- 7% due to Hemochromatosis

HOPE

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# Diabetes (3c) and Pancreatic Cancer

## Increased pancreatic cancer risk

- With long standing diabetes: 1.5-2 fold increase
- With new onset diabetes in those at least 50 years old: 1% frequency

## Pancreatic cancer screening

- Recognize increased cancer risk with new onset diabetes
- An effective population screen would need a combination of diabetes and other risk factors



# Pancreatic Diabetes (3c) Complications

Discussed by Dr. Wyckoff

## Data on complications are scarce

- Similar as other forms of diabetes of similar duration
- Those treated with insulin have a high risk of low blood sugars and erratic glucose fluctuations - "brittle" diabetes

## Prevention of complications

- Multidisciplinary team
  - Registered dietician (RDN) & Certified diabetes educator (CDE)
  - Diabetes specialist
  - Gastroenterologist
- Essential role of risk factor modification
- Goal: Prevent end organ damage: eye, kidney, arterial diseases

HOPE

# Pancreatic Diabetes (3c) Treatment

Discussed by Dr. Wyckoff

**Treatment directed at**

- correcting insulin deficiency
- or treating insulin resistance

HOPE

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# Diabetes – Patient Testimony

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PANCREATIC DISEASES

OCTOBER 17, 2020

**Georgiann Ziegler**

Board Member, National Pancreas Foundation Michigan

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**Georgiann Ziegler**
***Pain & Diabetes – Patient Testimony***

**DIAGNOSIS:** Idiopathic chronic pancreatitis

**FUN FACT:** I am a brand new grandmother

**DIAGNOSIS:** In 2004 I was diagnosed with Idiopathic Chronic Pancreatitis. Never knew where or what the pancreas did but I sure realized how painful and angry the pancreas can be. After a 65-day hospital stay in 2004, I continue to have multiple hospital stays per year. Fortunately, when not in a pancreas flare my days are good.

**CHALLENGES**
*Diabetes due to pancreatitis*. Hearing the words "you have diabetes" was very difficult. There was so much to learn and understand about how to navigate life with diabetes. From nutrition to medications and how they help to maintain good blood sugar levels. For me, working/partnering with my endocrinologist has helped to control my diabetes.

*Pain management* and awareness has come with time during my pancreas journey. Being aware that there are many options and determining which option is best for me has been key. Here is an example of what I do at the onset of a pancreas flare. At the first sign of a pancreas flare I begin by reducing intake of food and beverage, using a heating pad and over the counter pain medications. If pain persists I advance to medications prescribed by my physician. If after a few days this does not help and pain radiates to my back, I know it is time to head to the hospital.

**SUPPORT SYSTEM:** Faith, family and friends are my greatest support team, along with my medical team. For me, I could not do this journey alone. The challenging part of all this is that most of my family and friends knew very little about the pancreas so we all learned together. I can say we are all still learning.

**LIFESTYLE CHANGES YOU'VE MADE:** I had to disability retire from a great job with the UAW in 2010. This was not only hard emotionally but financially as well. I always thought I would work to "retirement age", have the going away lunch and walk away fulfilled. I felt cheated that my illness determined by timeline for retirement.

**WHAT THE DISEASE TAUGHT YOU ABOUT YOURSELF:**
I feel that my attitude and strength is greater than I ever could have imagine. I run with my good days and try not to worry if a flare is around the corner. If asked to go somewhere or participate in something I generally say yes with the hope that I will be well enough to go. I take my diagnosis seriously but I do not let it steal my joy!

**WHERE ARE YOU NOW:** I continue to have pancreas flares and hospital stays. Happy to say that the admits are getting farther apart. For me, my cup will always be half full and never half empty. Because of my pancreatitis I am a patient advisor at Michigan Medicine which allows me to be a voice for not only myself but many patients and families.

**WHERE ARE YOU NOW:** I continue to have pancreas flares and hospital stays. Happy to say that the admits are getting farther apart. For me, my cup will always be half full and never half empty. Because of my pancreatitis I

am a patient advisor at Michigan Medicine which allows me to be a voice for not only myself but many patients and families.

**HOW ARE YOU INVOLVED WITH NPF MICHIGAN:** I was approached 3 years ago by an NPF Michigan board member. I was honored to be asked to join a very important group. In addition to serving the board I am building relationships with others who are on the same pancreas journey.

**ADVICE FOR SOMEONE FACING A DIAGNOSIS:** The greatest advice I would give to family and friends when dealing with someone with a chronic condition would be to love us, listen to us, and just be there. I understand how hard it is to watch me struggle but many times all I need to know is that you're there. As for the new patient I would say it's okay to be mad, angry and upset. You to you!

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# "Pancreatic" Diabetes

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# PANCREATIC DISEASES

OCTOBER 17, 2020


**Jennifer Wyckoff, MD**

Associate Professor of Medicine

Division of Metabolism, Endocrinology and Diabetes

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# Industry Relationship Disclosures

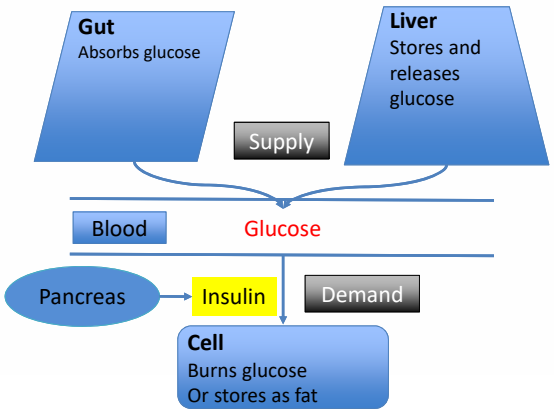
## *Industry Supported Research and Outside Disclosures*



# What is diabetes?

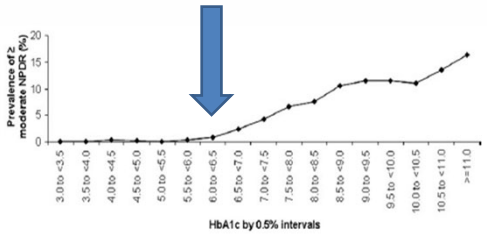
**Elevation of blood glucose to harmful levels, due to insufficient insulin to process the supply of glucose.**

**Glucose Supply > Demand**




A1C ≥ 6.5%

Average glucose of ≥ 140 mg/dl




THE INTERNATIONAL EXPERT COMMITTEE. Diabetes Care 2009;32:1327

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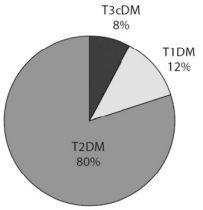
# What type of diabetes do I have?

## Pancreatic, ~~Pancreaticogenic~~, ~~Pancreoprivic~~, Type 3c, ~~Type 1.5~~

- **Type 1 diabetes-**
  - **Autoimmune destruction of β cells**
  - No insulin
  - Presentation: Young, thin, weight loss
  - Causes: genes, drugs
- **Type 2 diabetes-**
  - **"Everyone with diabetes who wasn't Type 1"**
  - Increased insulin resistance, Variable insulin deficiency
  - Presentation: Older, overweight or weight gain
  - Causes: genes, drugs and environmental factors

- **Unique Forms – two examples**
  - Maturity Onset Diabetes of the Young (MODY)
    - Often congenital pancreatic defect
  - Pancreatic diabetes (Type 3c)
    - Pancreatic damage
    - Common but under-recognized



Distribution of T1DM, T2DM and T3cDM

Diabetes 2017;66:1103–1110 | DOI: 10.2337/db16-1477

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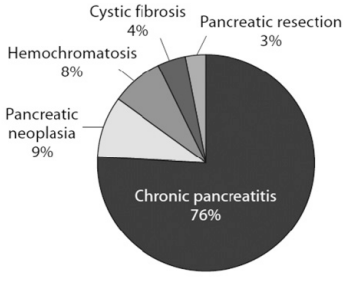
# Selected Causes of Pancreatic Diabetes

Discussed by Dr. Wamsteker

**Many different pancreatic disorders can lead to diabetes ***

- **Pancreatitis**
  - Acute pancreatitis
  - Chronic pancreatitis
  - Interestingly, diabetes (diabetic ketoacidosis) can also cause pancreatitis
- **Pancreatic cancer ****
  - Diabetes doubles the risk of pancreatic cancer.
  - New diagnosis of diabetes in one-third, the year of cancer diagnosis
- **Cystic Fibrosis related diabetes**
  - Mutations in the CFTR gene cause thick secretions and blockage of ducts
  - Pancreatic insufficiency, Pulmonary disease, Sinusitis, Liver, etc.
- **Hemochromatosis *****
  - Mutations in HFE gene cause increased iron deposition in tissue
  - "Bronze diabetes"- Diabetes, cirrhosis, hypogonadism, etc.



Distribution of causes of T3cDM

* Diabetes 2017;66:1103–1110 | DOI: 10.2337/db16-1477
** (http://www.cancer.org/cancer/pancreaticcancer/detailedguide/pancreatic-cancer-key-statistics)
*** Diabetes Care 31:1795–1801, 2008:

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# How does treatment for diabetes help me?

- Lowering glucose can
  - **Improve energy/ sleep**
  - Reduce the risk of infections
  - Reduce hunger/ **nausea***
  - Promote weight loss or weight gain*
  - Reduce risk of hyperglycemic emergencies
  - Reduce risk of mortality
  - Prevent blindness
  - **Prevent kidney failure**
  - Reduce the risk of neuropathic complications
  - Reduce the risk of amputations
  - Reduce the risk of heart disease*
  - Lower cholesterol
  - Improve sexual function and fertility
  - Etc.
    - *(depending on treatment choice)

- **Talk to your doctor about**
  - **Your symptoms and**
  - **Your specific risk for various complications**



# How is pancreatic diabetes treated?

| Diabetes - The Checklist (Part A) |
|---|
| Treatment |
| Nutrition |
| Exercise |
| Sleep |
| Pain, Stress, Coping |
| No Smoking |
| Education |
| Immunizations-Hepatitis B, Pneumococcal, Influenza, etc. |
| Monitoring |
| Medication… |

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# What is the role of nutrition and diabetes education?

**Registered Dietitian (RDN)** -with experience in malabsorption syndromes!

- Provide basic nutrition education
- Help you design a eating plan with the right amount of calories and nutrients
- Help you avoid high and low glucose readings
- Teach you how to count the amount of carbohydrate in your food to allow you to dose insulin more accurately.
- Reduce bloating, diarrhea and other GI symptoms
- Reduce your risk of kidney stones
- Address vitamin deficiencies
- Recognize the emotional context of eating

**Certified Diabetes Educator (CDE)**

- Provide education about exercise, diabetes medications, diabetes complications, coping skills, diabetes technology, etc.
- Case Management/ Coaching to achieve weight and blood glucose goals
- Insulin adjustments
- Diabetes Education has been shown to:
  - Reduces hospital admissions/ ED visits
  - Reduces A1C by 1% for ~ year

**Ask for a referral to an RD/CDE with experience with malabsorption syndromes!**



# How do I monitor my blood glucose?

- Blood Glucose Targets
  (may need to be individualized)
  - Fasting 80-130 mg/dl
  - Peak Postprandial < 180 mg/dl
- How Often?
  - Fasting ± Bedtime
  - Or Before each meal and at Bedtime
  - or Continuously
  - Ask your doctor.
  - Increase testing if ill!
- With what device?
  - Glucose Meter
    - For patients on 4 shots of insulin a day or less
  - Continuous Glucose Monitor
    - For patients on 4 shots of insulin a day or a pump

- Blood Glucose Management Goals
  (may need to be individualized)
  - A1c ≤ 7.0%
  - Average glucose of 154 mg/dl
  - Time In Range >70% (70mg/dl-180mg/dl)
- How Often?
  - A1C 2-4 times a year
- Caveats
  - A1c accuracy is impacted by many factors.
  - CGM accuracy is impacted by fewer factors.

**Monitoring is important.**

# What medication is right for me?

- **Medications**
  - **Biguanides** (Metformin)
  - **SGLT-2 inhibitors** (Canagliflozin, Empagliflozin, Dapagliflozin, etc.)
  - **GLP-1s** (Exenatide, Liraglutide, Dulaglutide, Semaglutide, etc.)
  - **Sulfonylureas** (Glipizide, Glyburide, etc.)
  - **DPP-4 inhibitors** (Sitagliptin, Linagliptin, etc.)
  - **Insulins**
  - **Others…**

Insulin injections rarely hurt.
They are just inconvenient.


- **Considerations**
  - Insulin Production (C peptide)
  - Weight
  - Heart disease
  - Kidney disease
  - Liver disease
  - Risk of hypoglycemia
  - Gastrointestinal Side Effects
  - Level of Glycemia/ Efficacy of Drug
  - Route of administration
  - Pregnancy plans
  - Cost
  - Others

**Not all people with diabetes need insulin, but…insulin is required if a person does not make insulin at all**



# What medication is right for me?

- **Biguanides (Metformin)**
  - Mild Weight loss,
  - Diarrhea common
- **SGLT-2 inhibitors (Canagliflozin, Empagliflozin, Dapagliflozin, etc.)**
  - Mild-moderate weight loss,
  - Increased risk of diabetic ketoacidosis in insulin deficient patients,
  - Reduced risk of congestive heart failure by diuretic effect
- **GLP-1s (Exenatide, Liraglutide, Dulaglutide, Semaglutide, etc.)**
  - Moderate weight loss,
  - Nausea and vomiting, Pancreatitis?, Gallstones
- **Sulfonylureas (Glipizide, Glyburide, etc.)**
  - Mild weight gain,
- **DPP-4 inhibitors (Sitagliptin, Linagliptin, etc.)**
  - Weight neutral
  - Pancreatitis?
- **Insulins**
  - Mild weight gain
  - Injectable

- Overweight man with mild hyperglycemia and mild cirrhosis due to hemochromatosis? (plus Heart disease)??
- Normal weight man with CF and mild hyperglycemia?
- Underweight woman moderate-severe hyperglycemia due to CF and a history of bowel obstructions?
- Normal weight man with history of total pancreatectomy following car accident?
- Overweight woman with a history of acute pancreatitis due to high triglycerides planning a pregnancy?

**Ask your doctor which treatment is right for you!**

# If I need insulin, do I ~~need~~ want an insulin pump?

An insulin pump is a lifestyle choice.
No one has to have one.
But if you need 4 times a day insulin injections, you may want one!


**If you do require insulin, consider an insulin pump!**

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| Diabetes Treatment- The Checklist |
|---|
| Treatment |
| Nutrition |
| Exercise |
| Sleep |
| No Smoking |
| Education |
| Immunizations |
| Monitoring |
| Medication |
| **Targets** |
| **Glucose** (A1C< 7.0%, Average glucose < 154 mg/dl, Time in Range >70%) |
| **Blood Pressure** (BP <135/85) |
| **Cholesterol** (On statin medication, LDL cholesterol < 100 mg/dl, < 70 mg/dl) |
| **Screenings** |
| **Eye exams** (Annually) |
| **Kidney Labs** (Creatinine < 1.2 mg/dl, Urine Microalbumin to Creatinine Ratio) < 30 |
| **Foot exams** (Annually) |

# What else should I know about diabetes?

- **Alcohol**
  - If you are on Sulfonylureas or Insulin, alcohol can cause serious low blood sugars.
- **Pregnancy**
  - High glucose around the time of conception causes birth defects. Women should use contraception until the A1c is at goal for pregnancy (A1c < 6.5%) and work to plan a pregnancy with a multidisciplinary team that includes an endocrinologist.
- **Insurance**
  - Diabetes is expensive and confusing! Get help navigating this if you need it!
  - Michigan Law (Section 550.1416b) mandates coverage for diabetes testing supplies (and diabetes education.)
  - Where can I get supplies? Durable Medical Equipment vs. Pharmacy benefit
  - Understanding your policy- Co-pays Vs Co-insurance Vs Deductible
    - Co-pay- You pay a fixed amount for a 1 month supply of a medication every time. "My co-pay is always $10."
    - Co-insurance- You pay the same % of the cost of a medication. "I pay 10% of the cost of any medication I buy."
    - Deductible- I pay 100% of the cost of my medications, until I have paid X amount in the year, and then they are covered.



# Summary

- Diabetes is an elevation of blood glucose to harmful levels, due to insufficient insulin to process the supply of glucose.
- Pancreatic diabetes is unique, common but often not recognized.
- Many different pancreatic disorders cause diabetes.
- Talk to your doctor about
  - Any symptoms you might be having.
  - Your specific risk for complications and how to reduce the risks
- Ask for a referral to an RD/CDE with experience treating patients with malabsorption syndromes.
- Monitoring is important.

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# Summary

- **Do all patients with pancreatic diabetes need insulin? Not all people with diabetes need insulin, but…insulin is required if a person does not make insulin at all.** Even if they make some insulin, the best treatment choice may still be insulin.
- **Ask your doctor which treatment is right for you!**
- If you do require frequent insulin injections, consider an insulin pump!
- Understand your risks of alcohol.
- Make sure to plan your pregnancies with your doctor.
- Ask for help with navigating insurance and costs!
- Have diabetes checklist!

**Thank you!**

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4TH ANNUAL

**Patient and Family Centered Care for**

# PANCREATIC DISEASES

OCTOBER 17, 2020

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**Panel Discussion**

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**Panel Discussion**

The National Pancreas Foundation

# Questions About Diabetes – Type and Diagnosis

1. I have chronic pancreatitis. My endocrinologist diagnosed me with type 2 diabetes. How do I know if I have type 2 rather than type 3C?
2. Is it normal for blood sugar to fluctuate with chronic pancreatitis?
3. Is annual A1C level recommended to diagnose diabetes, and to monitor control of blood sugar?
4. What are common symptoms of diabetes?

## Questions About Diabetes – Treatment

1. Is it true that blood sugar becomes harder to control when the pancreas becomes more damaged?
2. Are there diets that can prevent diabetes and get the pancreas working again?
3. Does insulin cause blood sugar levels to vary a lot?
4. Please explain islet transplantation and its benefits to patients?



## Questions About non 3c Diabetes and Other Disorders

1. What can one do to decrease the likelihood of getting adult-onset diabetes?
2. Is my type 1.5 diabetes (result of immunotherapy) the potential cause of further pancreatic problems? Are you aware of others whose diabetes is the result of cancer treatment?
3. I do not have diabetes; I have had hypoglycemia since a young age; what might this be due to?

## Questions About Diabetes – Type and Natural History

1. What type of diabetes is caused by having a pancreatic surgery called the Whipple procedure *[surgical removal of the head of the pancreas]*?
2. What is the average age of onset of diabetes in people with chronic pancreatitis?
3. Do my chances of becoming diabetic increase with the number of attacks of pancreatitis?
4. What is the typical progression from diagnosis of chronic pancreatitis until diabetes appears?



## Questions About Exocrine Pancreatic Insufficiency

1. Does pancreatic insufficiency mean you have chronic pancreatitis, or can you have pancreatic insufficiency without having pancreatitis?
2. How helpful are pancreatic digestive enzymes?
3. How do you know if pancreatic digestive enzymes are working for you?
4. What is the consequence of not taking pancreatic enzymes?

## Questions About Pancreatic Cysts

1. How likely are pancreatic cysts called "IPMNs" *[intraductal papillary mucinous neoplasms]* to be cancerous? How aggressive should treatment be?

2. Why can't a pancreatic cyst be removed without doing a Whipple procedure *[surgical removal of the head of the pancreas]*?

3. Are there other surgeries or methods to fix or remove a pancreatic cyst other than the Whipple procedure *[surgical removal of the head of the pancreas]*?

*Erik-Jan Wamsteker, MD*
*Division of Gastroenterology*

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# Clinical Problem - Pain

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# PANCREATIC DISEASES

OCTOBER 17, 2020


**Matthew J. DiMagno, MD**

Associate Professor of Medicine

Division of Gastroenterology and Hepatology


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# Industry Relationship Disclosures

## *Industry Supported Research and Outside Disclosures*

- AbbVie, consultant
  - Campaign to raise awareness of exocrine pancreatic insufficiency (EPI)



# Learning Objectives

## *At the End of the Activity Attendees Will be Able to*

- **Recognize general causes of abdominal pain and pain associated with pancreatic disease**
- **Understand how organs and nervous system cause pain**
- **Review how nerve pain responds poorly to interventions**
- **Highlight non-interventional therapies for pain**

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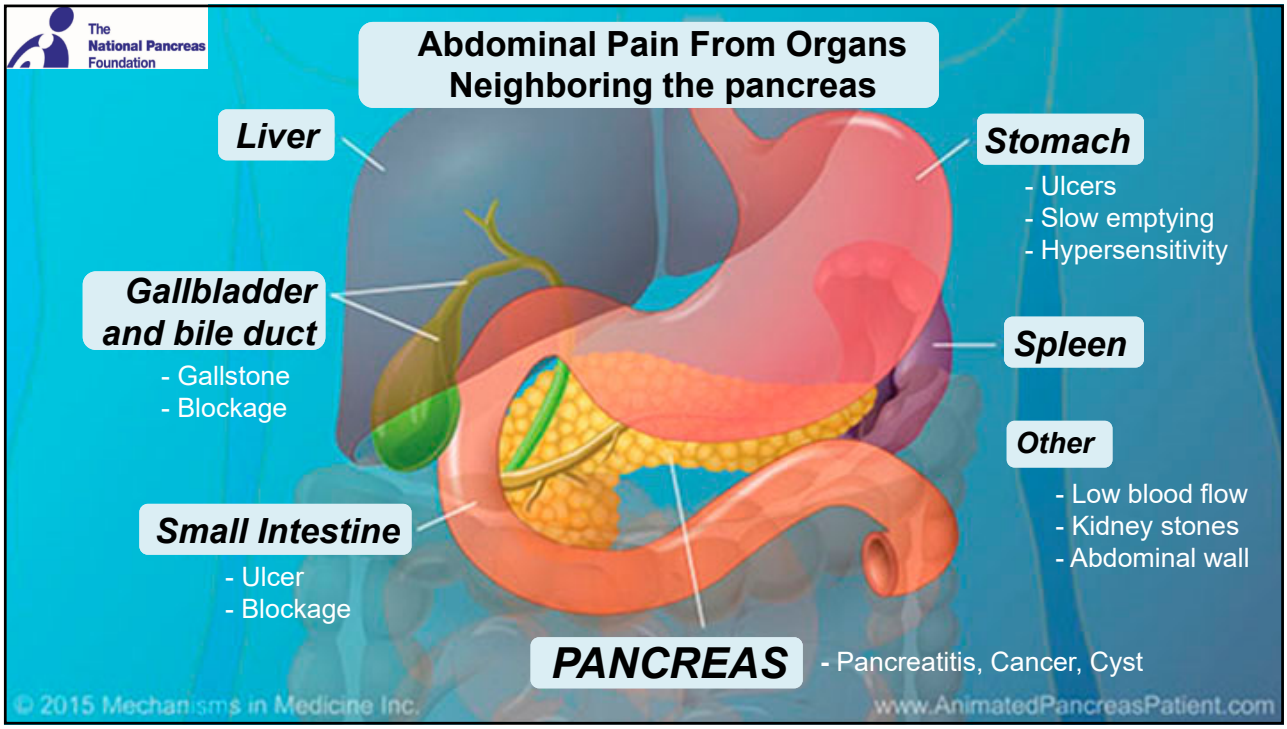
The National Pancreas Foundation
Abdominal Pain From Organs Neighboring the pancreas
Liver
Stomach
- Ulcers
- Slow emptying
- Hypersensitivity
Gallbladder and bile duct
- Gallstone
- Blockage
Spleen
Other
- Low blood flow
- Kidney stones
- Abdominal wall
Small Intestine
- Ulcer
- Blockage
PANCREAS
- Pancreatitis, Cancer, Cyst
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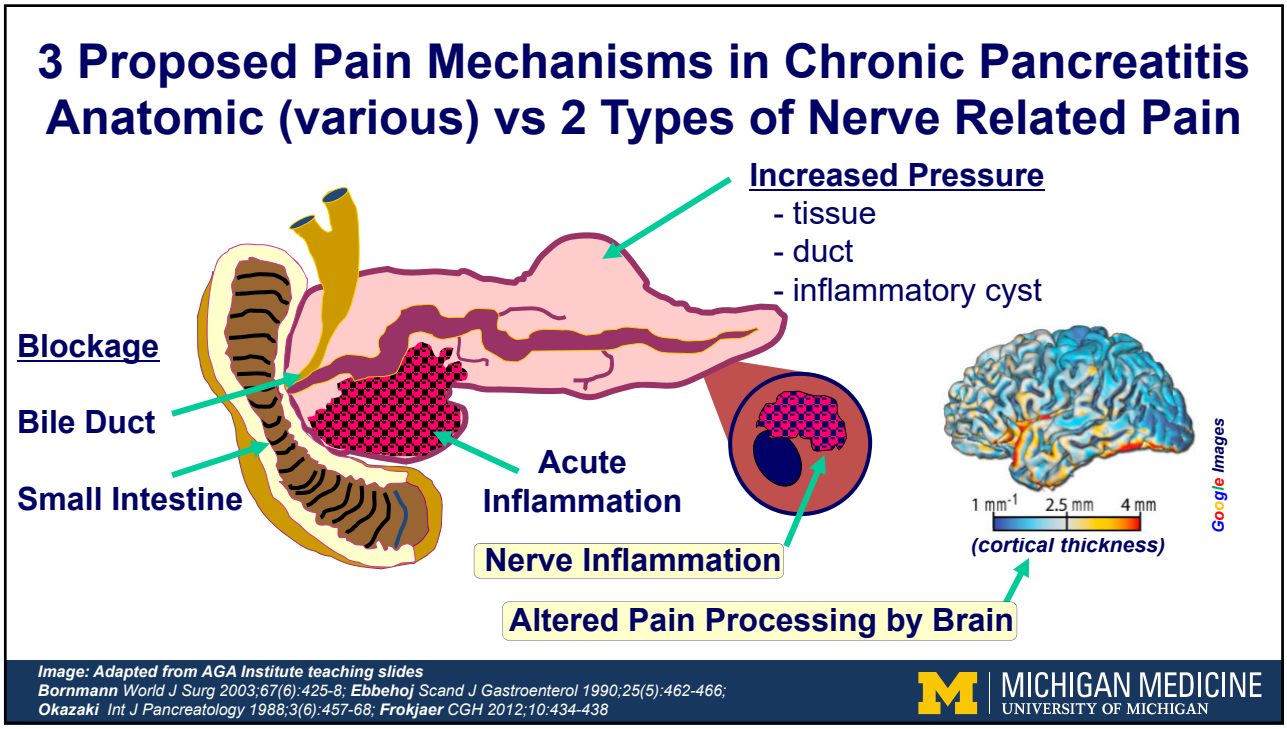
www.AnimatedPancreasPatient.com


3 Proposed Pain Mechanisms in Chronic Pancreatitis
Anatomic (various) vs 2 Types of Nerve Related Pain
Increased Pressure
- tissue
- duct
- inflammatory cyst
Blockage
Bile Duct
Small Intestine
Acute Inflammation
Nerve Inflammation
Altered Pain Processing by Brain
1 mm-1
2.5 mm
4 mm
(cortical thickness)
Google Images
Image: Adapted from AGA Institute teaching slides
Bornmann World J Surg 2003;67(6):425-8; Ebbehoj Scand J Gastroenterol 1990;25(5):462-466;
Okazaki Int J Pancreatology 1988;3(6):457-68; Frokjaer CGH 2012;10:434-438
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# Pattern of Abdominal (Pancreatic) Pain

**Pain is a hallmark symptom….*but can be absent**

**Upper abdominal pain that often radiates to the back**


**Typically SHORT intermittent attacks**

**CONSTANT pain, when present may be due to**

- **Local anatomic causes – in Last Slide**
- **Non-anatomic causes – Nerve Pain**
  - **Visceral hyperalgesia**
    - **Adaptation to chronic pain & chronic opioid use**
  - **Centralization of pain (phantom limb pain)**

*Explains why pain persists in up to 40% after total pancreatectomy*

*Poor response to interventions when pain > 3 years or narcotic use*

***Rattner et al***. *Pitfalls of distal pancreatectomy for relief of pain in chronic pancreatitis. Am J Surg, 1996;171(1):142-5*
***Garcea et al.*** *Total pancreatectomy with and without islet cell transplantation for chronic pancreatitis. Pancreas 2009;38:1-7*
***John et al.*** *Chronic gastrointestinal dysmotility & pain following TPIAT for chronic panc. J Gastrointest Surg 2017;21:622-7*

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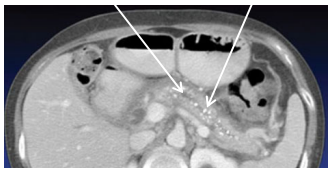
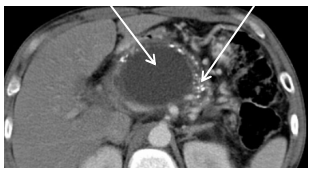
# Abnormal Pancreas Imaging ≠ Pain

Confusing, but true, the presence of pancreatic abdominal pain cannot be reliably predicted based on severe or mild pancreas imaging abnormalities

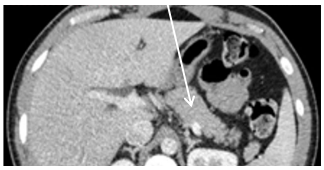
Dilated Duct & Calcifications



Pseudocyst & Calcifications



"Small Duct Disease"



***Wilcox et al.*** *Clin Gastroenterol Hepatol. 2015; 13(3):552-60*

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# Current Clinical Practice of Treating Abdominal Pain Associated with Chronic Pancreatitis

## Overuse of treatments aimed at acute tissue pain

- opioids, injections, surgery

## Infrequent treatment aimed at pain signaling through nerves

- Neural (pain) modulation
  - Anti-depressants (Tricyclics, "SNRIs")
  - Gabapentinoids (Pregabalin) ← ***Clinical Trial*** Reduces pain frequency
  - Cannabinoids ← Research Focus of Dr. Wiley

**Demir et al.** *Pain mechanisms in chronic pancreatitis: of a master and his fire. Langenbecks Arch Surg, 2011;396(2):151-60*
**Pasricha PJ.** *Unraveling the mystery of pain in chronic pancreatitis. Nat Rev Gastroenterol Hepatol. 2012;9:140-151*



# Non-Pharmacological Therapies
## *Similar to Other Chronic Pain Disorders*

## Trials of acupuncture

- Short term relief < 1week

## Potentially effective - understudied in chronic pancreatitis

- Cognitive behavioral therapy
- Relaxation therapy (hypnotherapy, biofeedback)
- *Other: Sleep, exercise, diet*

} Focus of Dr. Riehl

**Ballegaard et al.** *Acupuncture and transcutaneous electric nerve stimulation in the treatment of pain associated with chronic pancreatitis. A randomized study. Scand J Gastroenterol 1985;20:1249-54.*
**Juel et al.** *Acupuncture for Pain in Chronic Pancreatitis: A Single-Blinded Randomized Crossover Trial. Pancreas 2017;46:170-6.*

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# Pain – Patient Testimony

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OCTOBER 17, 2020

**Georgiann Ziegler**

Board Member, National Pancreas Foundation Michigan

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**Georgiann Ziegler**
***Pain & Diabetes – Patient Testimony***

**DIAGNOSIS:** Idiopathic chronic pancreatitis

**FUN FACT:** I am a brand new grandmother

**DIAGNOSIS:** In 2004 I was diagnosed with Idiopathic Chronic Pancreatitis. Never knew where or what the pancreas did but I sure realized how painful and angry the pancreas can be. After a 65-day hospital stay in 2004, I continue to have multiple hospital stays per year. Fortunately, when not in a pancreas flare my days are good.

**CHALLENGES**
*Diabetes due to pancreatitis*. Hearing the words "you have diabetes" was very difficult. There was so much to learn and understand about how to navigate life with diabetes. From nutrition to medications and how they help to maintain good blood sugar levels. For me, working/partnering with my endocrinologist has helped to control my diabetes.

*Pain management* and awareness has come with time during my pancreas journey. Being aware that there are many options and determining which option is best for me has been key. Here is an example of what I do at the onset of a pancreas flare. At the first sign of a pancreas flare I begin by reducing intake of food and beverage, using a heating pad and over the counter pain medications. If pain persists I advance to medications prescribed by my physician. If after a few days this does not help and pain radiates to my back, I know it is time to head to the hospital.

**SUPPORT SYSTEM:** Faith, family and friends are my greatest support team, along with my medical team. For me, I could not do this journey alone. The challenging part of all this is that most of my family and friends knew very little about the pancreas so we all learned together. I can say we are all still learning.

**LIFESTYLE CHANGES YOU'VE MADE:** I had to disability retire from a great job with the UAW in 2010. This was not only hard emotionally but financially as well. I always thought I would work to "retirement age", have the going away lunch and walk away fulfilled. I felt cheated that my illness determined by timeline for retirement.

**WHAT THE DISEASE TAUGHT YOU ABOUT YOURSELF:**
I feel that my attitude and strength is greater than I ever could have imagine. I run with my good days and try not to worry if a flare is around the corner. If asked to go somewhere or participate in something I generally say yes with the hope that I will be well enough to go. I take my diagnosis seriously but I do not let it steal my joy!

**WHERE ARE YOU NOW:** I continue to have pancreas flares and hospital stays. Happy to say that the admits are getting farther apart. For me, my cup will always be half full and never half empty. Because of my pancreatitis I am a patient advisor at Michigan Medicine which allows me to be a voice for not only myself but many patients and families.

**WHERE ARE YOU NOW:** I continue to have pancreas flares and hospital stays. Happy to say that the admits are getting farther apart. For me, my cup will always be half full and never half empty. Because of my pancreatitis I

am a patient advisor at Michigan Medicine which allows me to be a voice for not only myself but many patients and families.

**HOW ARE YOU INVOLVED WITH NPF MICHIGAN:** I was approached 3 years ago by an NPF Michigan board member. I was honored to be asked to join a very important group. In addition to serving the board I am building relationships with others who are on the same pancreas journey.

**ADVICE FOR SOMEONE FACING A DIAGNOSIS:** The greatest advice I would give to family and friends when dealing with someone with a chronic condition would be to love us, listen to us, and just be there. I understand how hard it is to watch me struggle but many times all I need to know is that you're there. As for the new patient I would say it's okay to be mad, angry and upset. You to you!

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# PANCREATIC DISORDERS: IS THERE A ROLE FOR CANNABIS PRODUCTS?

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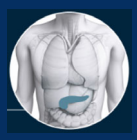


**John W Wiley, MD**
Professor, Internal Medicine
Division of Gastroenterology


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## INDUSTRY RELATIONSHIP DISCLOSURES
### *INDUSTRY SUPPORTED RESEARCH AND OUTSIDE DISCLOSURES*

- None

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# INTRODUCTION

Endocannabinoid receptors (CB1 and CB2), endocannabinoids (AEA and 2-AG) and their synthesis and degradation enzymatic pathways are robustly expressed throughout the body, and generally anti-inflammatory. Broadly speaking, CB1 receptors are predominant in neural tissue and CB2 in non-neural tissues, particularly immune cells.

## ARE THC AND CANNABIS USEFUL TO TREAT PAIN IN PANCREATITIS?

**NO**

- Tetrahydrocannabinol (THC) Does Not Reduce Pain in Patients With Chronic Abdominal Pain in a Phase 2 Placebo-controlled Study (de Vries M et al. CG&H, 2017)
  - Caveat: Only 8 patients with chronic pancreatitis in treatment arm
- Single dose delta-9-tetrahydrocannabinol in chronic pancreatitis patients (CP): analgesic efficacy, pharmacokinetics and tolerability (de Vreis et al. Br. J. Clin Pharmacol., 2016)
  - A single dose of Δ9-THC was not effective in reducing chronic pain resulting from CP
- Cannabinoid receptor agonist namisol (THC) does not affect cytokine levels in chronic pancreatitis patients (Utomo WK et al. AJG, 2015)

**Maybe**

- Effects of Medical Cannabis on Use of Opioids and Hospital Visits by Patients With Painful Chronic Pancreatitis (Barlowe, TS et al. CG&H, 2019)
  - Medical cannabis may be an effective adjunctive therapy in treating the pain associated with chronic pancreatitis and either replace or minimize the need for chronic opioid therapy
  - Given the limitations and small sample size, this study should serve as a platform for future investigations on this topic

## CANNABINOIDS INEFFECTIVE FOR CANCER PAIN

(BOLAND EG, ET AL. BMJ SUPPORT PALLIAT CARE. 2020)

Meta-analysis of five studies of 1,442 adults that compared cannabinoids to placebo and other active agents for the treatment of cancer-associated pain

- No significant impact on cancer associated pain
- Cannabinoids had higher rates of side effects: somnolence and dizziness

Limitations-

- Did not include all relevant studies
- Studies had different patients, interventions, comparators and outcomes

## THE THERAPEUTIC EFFECTS OF CANNABIS AND CANNABINOIDS: AN UPDATE FROM THE NATIONAL ACADEMIES OF SCIENCES, ENGINEERING AND MEDICINE REPORT

(ABRAMS, DI. EURO. J. OF INTERNAL MEDICINE, 2018)

16-member committee conducted extensive database search and considered 10,000 abstracts to determine their relevance

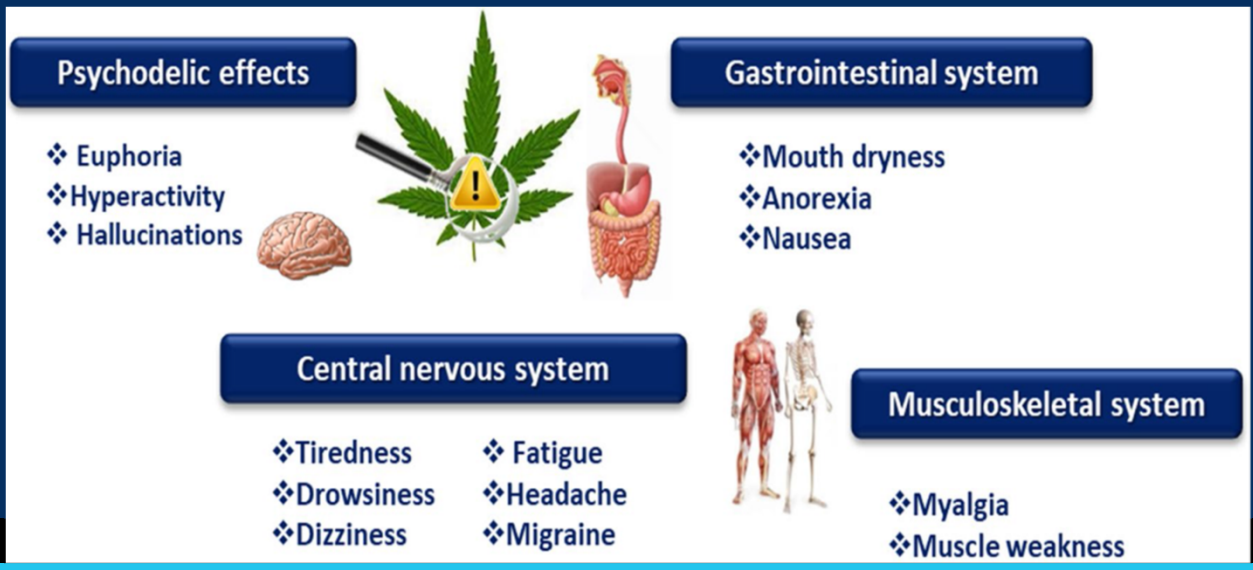
- Summary:
  - Conclusive or substantial evidence for effective treatment of pain (neuropathic) in adults; chemotherapy-induced nausea and vomiting; and spasticity associated with multiple sclerosis
  - Moderate evidence was found for secondary sleep disturbances
  - Limited, insufficient or absent evidence supporting improvement in appetite, Tourette syndrome, anxiety, posttraumatic stress disorder, cancer, irritable bowel syndrome, epilepsy and a variety of neurodegenerative disorders

## A REVIEW OF HUMAN STUDIES ASSESSING CANNABIDIOL'S (CBD) THERAPEUTIC ACTIONS AND POTENTIAL

(WHITE CM, CLINICAL PHARMACOL., 2019)

- One FDA approved CBD product (Epidiolex).
- Consistency and quality of the non–FDA-approved products vary markedly.
- CBD has been touted for many ailments for which it has not been studied, and in those diseases with evaluable human data, it generally has weak or very weak evidence.
- **The control of refractory seizures (Dravet syndrome or Lennox-Gastaut syndrome) is a clear exception, with strong evidence of CBD's benefit.**
- Acute CBD dosing before anxiety-provoking events like public speaking and the chronic use of CBD in schizophrenia are promising but not proven.
- CBD is not risk free, with adverse events (primarily somnolence and gastrointestinal in nature) and drug interactions. CBD has been shown to increase liver function tests and needs further study to assess its impact on suicidal ideation.

## CANNABIS SIDE-EFFECTS

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## SUMMARY & FUTURE DIRECTIONS

- Development of specific receptor agonists and antagonists and modulators of synthesis and degradation enzymatic pathways that work in a region-specific manner is a rapidly growing area of research
- **Role in chronic pancreatitis pain is equivocal and needs further study.**
- There is an urgent need for discovery research involving endocannabinoids and phytocannabinoids at the basic and clinical levels because of the growing use of cannabis products and the need for non-opioid options to help manage pain, nausea and a variety of medical disorders. Example- NIH HEAL initiative.
- Some Prospective Alternatives for Treating Pain: The Endocannabinoid System and Its Putative Receptors GPR18 and GPR55 (Guerrero-Alba R et al. Front. Pharm., 2019)

4TH ANNUAL

**Patient and Family Centered Care for**

# PANCREATIC DISEASES

OCTOBER 17, 2020

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# Behavioral therapy in the management of your health: An integrative approach

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**Patient and Family Centered Care for**

# PANCREATIC DISEASES

OCTOBER 17, 2020


**Megan E. Riehl, PsyD**

Assistant Professor of Medicine

Clinical Program Director of the GI Behavioral Health Program

Division of Gastroenterology and Hepatology

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# Industry Relationship Disclosures

## *Industry Supported Research and Outside Disclosures*

- Gastro Girl, Inc., a co-parent owner of GI OnDemand (advisory fees)
- Health Union, LLC (consultant fees)

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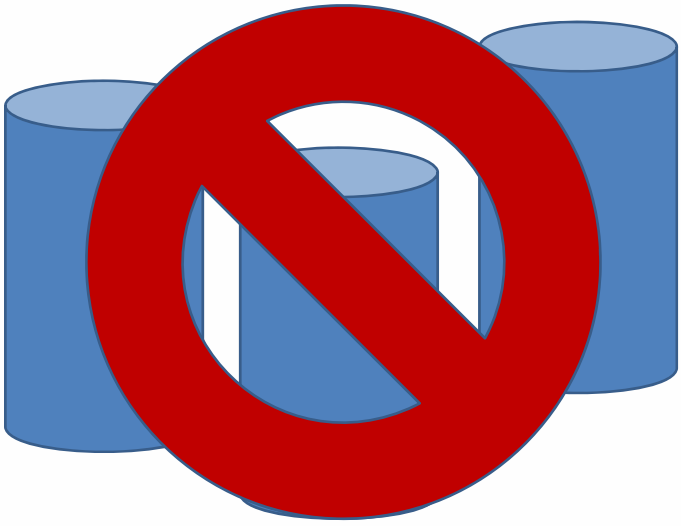
The age of medical silos must crumble



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# Chronic Pancreatitis Associated With Abdominal Pain

Chronic Pancreatitis (CP)

- Prevalence of ~50/100,000
- Traditional classifications:
  - Alcoholic, idiopathic, hereditary, obstructive, hyperlipidemia

Abdominal pain in chronic pancreatitis

- Common, 75% with pain at initial presentation
- Description of pain
  - Dull, sharp or nagging sensation in upper abdomen
  - Can radiate to the back
  - Exacerbated by food

Discussed by Dr. DiMagno

Conwell DL, et al. *Pancreas*. 2014 43(8):1143-62; Drewes AM, et al. *Pancreatology.* 2017 (17):720-731.

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# MANTRA study: Moving the field forward

**Comparison of two care models**

- Solo Gastroenterologist (GE) provider
- Multidisciplinary clinics with GEs, GI psychologists, dietitians, behavioral physiotherapists and psychiatrists

**Multidisciplinary Clinics have**

- Greater symptom improvement
- Greater psychological well-being
- Lower cost for successful outcome
- Likely lower long term hospital costs

| | Standard-care group (n=46) | Multidisciplinary-care group (n=98) | p value |
|---|---|---|---|
| Health-care use in hospital (AU$) | | | |
| Median hospital cost per patient (IQR) | $2421 (470–2485) | $2485 (878–2895) | 0·0085 |
| Average cost per primary outcome* | $3136 | $2549 | .. |
| Health-care use outside hospital | | | |
| Median number of visits to their GP for any reason | 1 (1–3) | 1 (0–2) | 0·0072 |
| Number of patients who saw their GP for any reason | 35 (76%) | 52 (53%) | 0·008 |
| Median number of visits to their GP for gut symptoms | 0 (0–1) | 0 (0–0) | 0·015 |
| Number of patients who their GP for gut symptoms | 16 (35%) | 16 (16%) | 0·013 |
| Blood tests | 13 (28%) | 5 (5%) | <0·0001 |
| Gastroscopy | 7 (15%) | 5 (5%) | 0·041 |
| Colonoscopy | 5 (11%) | 4 (4%) | 0·15 |
| Ultrasound | 3 (7%) | 1 (1%) | 0·096 |
| Number of patients absent from work because of gut symptoms during follow-up | 17 (37%) | 25 (26%) | 0·16 |

Data are n (%) unless otherwise stated. GP=general practitioner. *Calculated as total costs divided by the number of patients with primary outcomes.

*Table 6:* Costs and health-care use

Basnayake C. et al. *Lancet Gastroenterol Hepatol*. 2020;5(10):890-899.

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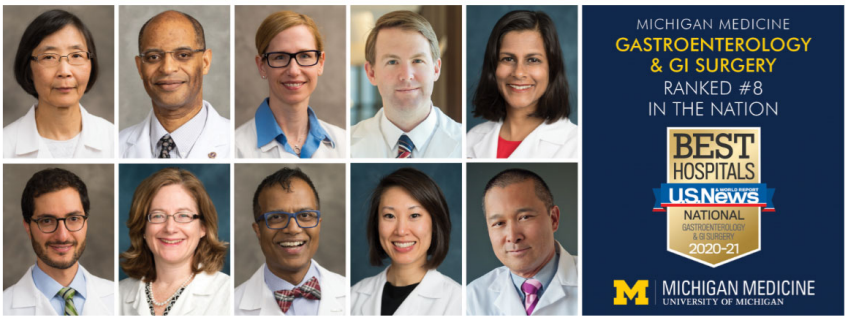
# Integrative Multidisciplinary Clinical Care

## We are the Michigan Difference




**2 GI psychologists fully integrated into the Division**

**Several GI registered dietitians available at multiple locations**



# Who provides GI psychology services?

## At Michigan Medicine:

Megan E. Riehl, PsyD

Christina Jagielski, PhD, MPH

A GI psychologist is a clinical health psychologist who has completed additional training in gastroenterology. Most providers in psychogastroenterology have a doctoral degree with advanced training.

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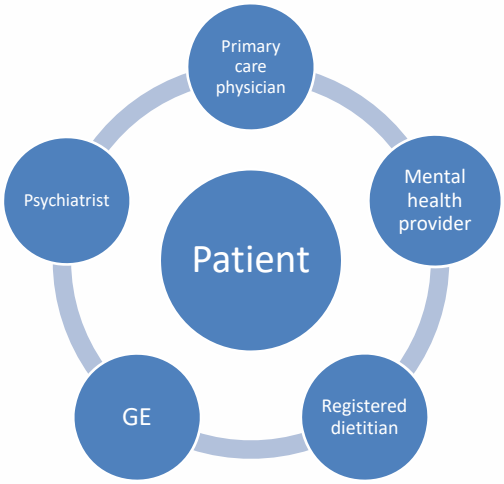
# What is Psychogastroenterology?

- Applying evidence-based psychological interventions to digestive conditions
- As part of a collaborative, integrative care team






# In Chronic Pancreatitis (CP), Chronic Pain is *Common and Complicated*

- Hallmark feature with majority (but not all) of patients experiencing pain during the course of the disease
- Multifactorial and poorly understood
  - Visceral
  - Central (i.e. neuroplastic)
- Overlaps with disorders of gut-brain interaction (functional GI symptoms)

Discussed by Dr. DiMagno

Madan A, et al. J Healthc Qual, 2013. 35(5): p. 41-6.

## Concerns With Managing Pain in Chronic Pancreatitis

- Challenging to treat
- Historically, majority of patients treated with opioids
- Chronic opioid management has inherent addiction risk
  - up to 25% of patients use opioids for nonmedical use
- ~40% of patients have opioid misuse concerns (Madan et al)

Madan A, et al. J Healthc Qual, 2013. 35(5): p. 41-6.

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## Psychiatric Co-morbidities in Chronic Pancreatitis

- Depression is common and associates with:
  - worse pain
  - lower physical and psychological quality of life
  - poorer quality of life

Madan A, et al. J Healthc Qual, 2013. 35(5): p. 41-6.

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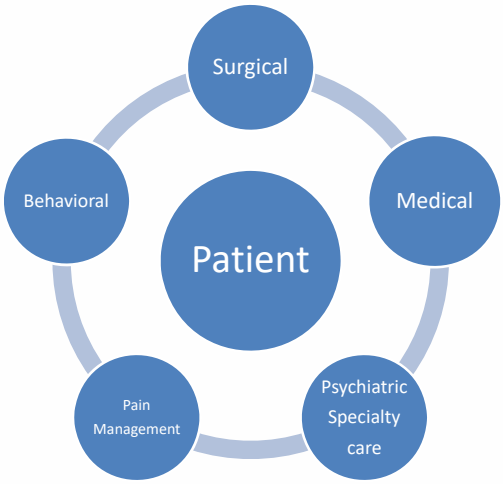
## Interprofessional Treatment Approach for Chronic Pancreatitis




Madan A, et al. J Healthc Qual, 2013. 35(5): p. 41-6.

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## A Best Practices Model of Care for Chronic Pancreatitis

**Lower healthcare costs** achieved with models that combine:

- Behavioral approaches to pain management
- Psychological treatments for depression and anxiety,
- Behavioral management for opioid medication management
- Psychotropic medication management
- Standard medical and surgical treatments

***Behavioral and psychological approaches to managing pain are under-utilized in patient with chronic pancreatitis**

Madan A, et al. J Healthc Qual, 2013. 35(5): p. 41-6;
Drewes AM, et al. *Pancreatology.* 2017 (17):720-731.

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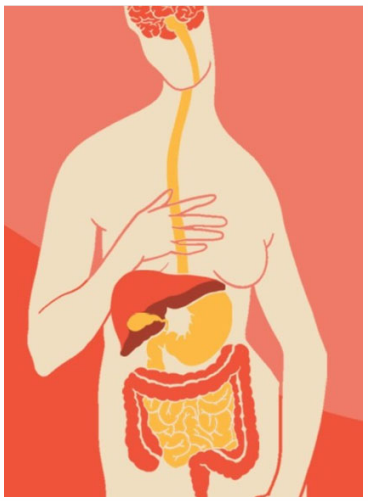
## Psychological Interventions

- Cognitive behavioral therapy (CBT)
- Gut-directed hypnotherapy
- Mindfulness techniques
- Acceptance and commitment therapy (ACT)



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## Goals for GI Behavioral Health

**Skills Training for Pain Management**

- Learning relaxation based interventions
- Learning strategies for stress management

**Coping & Acceptance**

- Processing the emotions associated with chronic illness

**Lifestyle**

- Assistance with meeting goals for a healthy lifestyle
- Referral to appropriate specialists

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## Summary

- Your emotional health is just as important as your physical health
- Consider building an integrative team that includes a psychologist for managing your overall health.
- By addressing mood symptoms and having a variety of strategies to cope with pain your experience with pancreatitis can improve.



## Thank you!

To learn more about our
GI Behavioral Health Program:
https://www.uofmhealth.org/conditions-treatments/digestive-and-liver-health/gi-behavioral-therapy

Connect with me @DrRiehl


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4TH ANNUAL

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**Panel Discussion**

The National Pancreas Foundation

## Questions About Cannabis – Controlling Pain / Benefits?

1. Is cannabis an effective method to control pain and improving appetite?
2. Does cannabis control abdominal pain in people with pancreatitis?
3. Is cannabis a good supplement to other pharmaceuticals for managing pain?

*John Wiley, MD*
*Division of Gastroenterology*
MICHIGAN MEDICINE
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## Questions About Cannabis – Formulation

1. What is the best form of cannabis for pain control?
2. Do CBD (cannabidiol) and THC (Tetrahydrocannabinol) need to be in equal parts to work properly?
3. What is the trick of getting pain relief without getting high from THC (Tetrahydrocannabinol)?
4. Is CBD (cannabidiol) oil or cannabis oil effective for pain due to chronic pancreatitis?
5. How do you measure the "quality" of CBD (cannabidiol) oil?
6. What is the difference between cannabis versus oxycodone for pain management?



## Questions About Cannabis – Legal Access

1. Is cannabis legal by Michigan law and illegal by Federal law? Can cannabis be used legally in Michigan?
2. What type of a doctor can prescribe medical marijuana…does it have to be a pain doctor?

## Questions About Cannabis – Safety

1. What are common side effects of using cannabis?
2. Do edibles and cannabis have a similar effect and adverse effects?
3. Are there safety concerns for a patient that uses both cannabis oils and hydrocodone to treat pain?
4. Is using cannabis problematic for people who have had substance abuse / alcoholism?
5. Would cannabis be more/less dangerous to use as a teenager?



## Questions About Cannabis – Risk of Pancreatitis

1. Is cannabis dangerous for people with pancreatitis?
2. Anecdotal studies have shown a possible link between cannabis and *acute pancreatitis*, is this a concern?
3. If smoking cigarettes by itself is a risk factor for *chronic pancreatitis*, does this apply to cannabis too?

## Questions About Behavioral Therapy – Treatment

1. How is behavioral therapy used to manage symptoms associated with pancreatitis?
2. What is the best form of behavioral therapy for pain in those with chronic pancreatitis?
3. Does meditation have any tangible effect on minimizing painful pancreatic attacks??



## Questions About Behavioral Therapy – Access

1. Is behavioral therapy usually covered by insurers?
2. Are similar services offered in Michigan outside of the Ann Arbor?
3. What type of training should a therapist have undertaken to be able to refer this service?
4. What should you look for in a counselor?
5. Is it just as important to have your counselor as your GI Dr on your speed dial?

## Questions About Behavioral Therapy – Candidates for Treatment

1. Besides depression and anxiety, what other mental health issues are present in people with chronic pancreatitis?
2. Do you see PTSD in people with chronic pancreatitis?
3. Will seeing a therapist for PTSD help someone to get through the next attack of Pancreatitis?



## Questions About Pain – Causes

1. What triggers the pain for patients with chronic pancreatitis, including those who have had pancreatic surgery years ago?
2. What is the cause of sudden onset of severe abdominal pain with high liver enzymes and often lipase values? Lab values remain high more than 24 hours, but pain resolves after ~1 hour.
3. Is pain always an indication to get labs in recurrent acute pancreatitis?
4. Is it gas that causes the pain? Any remedies?
5. Why does my pain worsen with physical activity? I have not been able to prevent pain by use of yoga, taking Motrin, hydrating, and resting in bed days before and after.

## Questions About Pain – Treatment

1. What kind of treatment can be given to control pain for chronic pancreatitis?
2. What treatment for pain is available besides anti-depression medications?
3. Do pancreatic enzymes relieve pain in chronic pancreatitis or after having a Whipple procedure (surgical removal of the head of the pancreas, often with surrounding structures)
4. Can reducing gastric acid with omeprazole relieve stomach pain?



## Questions About Pain – Neuropathic Pain & "Burnout"

Neuropathic pain

1. Why does abdominal pain sometimes persist after total pancreatectomy (phantom pain)?
2. Will patients with chronic pancreatitis always have some degree of pain?
3. How successful are spinal cord stimulators and peripheral nerve stimulators in the treatment of pain due to chronic pancreatitis? When should a patient look into getting a stimulator?

Cessation of pain or pain "burnout"

1. Does pain stop ("burnout") in patients with chronic pancreatitis and abdominal pain? Why?

## Questions About Pain – Opioid Analgesics

1. How do people with pancreatic pain get access to opioid pain medication in the current environment that encourages withholding such medications?
2. What is the best source of information for how to detox from opioids?
3. What are your thoughts about pain pumps vs oral meds?
4. When hospitalized with pancreatitis, what should I do if I my pain is not well controlled?

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**CLOSING REMARKS**

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OCTOBER 17, 2020

# THANK YOU and REMINDER

- **Please respond to a post-event communication**
  - ❑ **Complete 7 true/false questions a second time**
    **-> provides a measure of learning and effectiveness of speakers**
    **-> eligible for a drawing for prizes, if completed both pre- *and* post-event**
  - ❑ **Suggest topics for next years program to meet your needs**
- **Course materials**
  - ❑ **Attendees will receive access to electronic syllabus and link to Michigan Medicine YouTube video of the event**

HOPE

**Mark Your Calendar Oct 9, 2021**


5TH ANNUAL

## Patient and Family Centered Care for PANCREATIC DISEASES

Saturday, OCTOBER 9, 2021
10:00 am – 1:00 pm
The Inn at St John's, Plymouth, Michigan

The National Pancreas Foundation