

Western Surgical Association
134th Scientific Session

2026 ANNUAL MEETING

November 7–10, 2026

Santa Fe, New Mexico

Eldorado Hotel

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Western Surgical Association 134th Scientific Session

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Nov. 7-10, 2026 | Santa Fe, NM | *Eldorado Hotel*



Western Surgical Association

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EXHIBITORS

Boehringer Laboratories

Cook Medical

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Vertex Pharmaceuticals Incorporated

WELCOME NEW MEMBERS

Elected to Membership at the Annual Meeting in 2025

Hassan Aziz MD | University of Iowa
Stephen Behrman MD | Baptist Health Sciences University
Neal Bhutiani MD, PhD | University of Louisville
Saskya Byerly MD, MS | University of Tennessee Health Science Center
Jennifer Choi MD, FACS | Indiana University
Darren Cullinan MD | Washington University
Zhi Ven Fong MD, MPH, DrPH | Mayo Clinic Arizona
T. Clark Gamblin MD, MS, MBA | Medical College of Wisconsin
Alicia Gingrich MD, MS | University of Nevada, Reno
Meredith Gunder MD, MS-CR | Inova Schar Cancer Center
Amit Joshi MD | Cooper University Healthcare
Lindsay Kranker MD | Washington University in St. Louis
Natalie Liu MD | Endeavor Health
Brendan Lovasik MD | Washington University
Ryne Marshall MD | University of Louisville
Rachel Morris MD | Medical College of Wisconsin
Nicholas Nash MD | University of Louisville
Trang Nguyen MD | Washington University in St. Louis
Jennifer Preston MD | University of Arizona, Phoenix
Juan Santamaria MD FACS FSSO | University of Nebraska
Jason Snyder MD | Washington University
Marc Ward MD | Baylor University Medical Center

PAST PRESIDENTS & MEETING LOCATIONS

PRESIDENT	LOCATION	YEAR
S.S. Todd*	Topeka	1891
Milo B. Ward*	Kansas City	1892
Milo B. Ward*	Des Moines	1893
Lewis Schooler*	Omaha	1894
John E. Summers, Jr.*	Kansas City	1895
Thomas J. Beattie*	Topeka	1896
Joseph Eastman*	Denver	1897
David S. Fairchild*	Omaha	1898
Homer C. Crowell*	Des Moines	1899
O. Beverly Campbell*	Minneapolis	1900
August F. Jonas*	Chicago	1901
James E. Moore*	St. Joseph	1902
Alexander H. Ferguson*	Denver	1903
Charles H. Mayo*	Milwaukee	1904
Harvey D. Niles*	Kansas City	1905
Malcolm L. Harris*	Salt Lake City	1906
Charles W. Oviatt*	St. Louis	1907
William W. Grant*	Minneapolis	1908
Arthur L. Wright*	Omaha	1909
John P. Lord*	Chicago	1910
Amos W. Abbott*	Kansas City	1911
Lewis L. McArthur*	Cincinnati	1912
Jabez N. Jackson*	St. Louis	1913
Bryon B. Davis*	Denver	1914
Joseph R. Eastman*	Des Moines	1915
Lawrence W. Littig*	St. Paul	1916
Leonard Freeman*	Omaha	1917
James F. Percy*	Chicago	1918
Roland Hill*	Kansas City	1919
Arthur T. Mann*	Los Angeles	1920
Charles D. Lockwood*	St. Louis	1921
Miles F. Porter*	Minneapolis	1922
Horace G. Wetherill*	Colorado Springs	1923
Donald Macrae, Jr.*	French Lick Springs	1924
Willard D. Haines*	Wichita	1925
Robert C. Coffey*	Duluth	1926
Lewis H. McKinnie*	Omaha	1927
Kellog Speed*	Chicago	1928
E. Starr Judd*	Del Monte	1929
Carl E. Black*	Kansas City	1930
Clarence G. Toland*	Denver	1931
Harry P. Ritchie*	Madison	1932
Samuel C. Plummer*	Cincinnati	1933
Frank R. Teachenor*	St. Louis	1934
Reginald H. Jackson*	Rochester	1935
Thomas G. Orr*	Kansas City	1936
Fred W. Bailey*	Indianapolis	1937
Casper F. Hegner*	Omaha	1938
Vernon C. David*	Los Angeles	1939

*Deceased

PAST PRESIDENTS & MEETING LOCATIONS

PRESIDENT	LOCATION	YEAR
Alfred Brown*	Topeka	1940
Albert H. Montgomery*	St. Paul	1941
Willis C. Gatch*	No General Meeting	1942
Willis D. Gatch*	No General Meeting	1943
Willis D. Gatch*	Chicago	1944
James C. Masson*	Chicago	1945
Arthur R. Metz*	Memphis	1946
William M. Mills*	Colorado Springs	1947
Harry B. Zimmerman*	St. Louis	1948
Robert L. Sanders*	Santa Barbara	1949
Warren H. Cole*	Minneapolis	1950
Erwin R. Schmidt*	Colorado Springs	1951
George B. Packard*	Houston	1952
Lawrence Chaffin*	Chicago	1953
Herbert H. Davis*	Colorado Springs	1954
Michael L. Mason*	Seattle	1955
Charles G. Johnston*	Cincinnati	1956
Everett P. Coleman*	Salt Lake City	1957
James B. Brown*	Rochester	1958
James T. Priestley*	Colorado Springs	1959
Caleb S. Stone, Jr.*	Detroit	1960
John T. Reynolds*	San Francisco	1961
Jacob K. Berman*	St. Louis	1962
Charles W. Mayo*	Galveston	1963
Eugene A. Osius*	Colorado Springs 1	1964
Arthur J. Hunnicutt*	Omaha	1965
Walter W. Carroll*	Phoenix	1966
O. Theron Claggett*	Los Angeles	1967
Merle M. Musselman*	Chicago	1968
Arthur C. Pattison*	Dallas	1969
Kenneth C. Sawyer*	Colorado Springs	1970
Raleigh R. White*	Portland	1971
Carl P. Schlicke*	Rochester	1972
Tom D. Throckmorton*	Houston	1973
Darrell A. Campbell*	San Francisco	1974
Chester B. McVay*	Colorado Springs	1975
William P. Mikkelsen*	Coronado	1976
Allen M. Boyden*	Las Vegas	1977
D. Emirick Szilagyi*	Scottsdale	1978
Harvey R. Butcher, Jr.*	Colorado Springs	1979
William H. ReMine*	Salt Lake City	1980
Paul E. Hodgson*	Albuquerque	1981
James J. Berens*	Kansas City	1982
Robert E. McCurdy*	Monterey	1983
George L. Jordan, Jr.*	Colorado Springs	1984
Martin A. Adson*	Rochester	1985
R. Dale Liechty*	Detroit	1986
Alexander J. Walt*	Dallas	1987
Melvin A. Block	Coronado	1988

*Deceased

PAST PRESIDENTS & MEETING LOCATIONS

PRESIDENT	LOCATION	YEAR
J. Bradley Aust*	St. Louis	1989
David G. Ashbaugh	Scottsdale	1990
John L. Glover*	Colorado Springs	1991
Arthur J. Donovan*	San Antonio	1992
George E. Block*	Seattle	1993
Basil A. Pruitt, Jr.*	Palm Desert	1994
Norman W. Thompson*	Chicago	1995
Jon A. van Heerden	Portland	1996
Jack R. Pickleman*	Colorado Springs	1997
Jay L. Grosfeld*	Indianapolis	1998
Thomas V. Berne	Santa Fe	1999
Amilu S. Rothhammer	Dana Point	2000
J. David Richardson*	San Antonio	2001
D Claude H. Organ*	Vancouver, British Columbia	2002
Richard A. Prinz	Tucson, AZ	2003
Fabrizio Michelassi	Las Vegas, Nevada	2004
Arthur S. McFee*	Rancho Mirage, CA	2005
Richard C. Thirlby	Los Cabos, México	2006
Merril T. Dayton	Colorado Springs, CO	2007
Bruce L. Gewertz	Santa Fe, NM	2008
Wayne H. Schwesinger	San Antonio, TX	2009
Michael B. Farnell	Chicago, IL	2010
Gregory J. Jurkovich	Tucson, AZ	2011
Raymond J. Joehl	Colorado Springs, CO	2012
Clive S. Grant	Salt Lake City, UT	2013
Steven C. Stain	Indian Wells, CA	2014
William C. Chapman	Napa, California	2015
R. James Valentine	Coronado, CA	2016
Kelly McMasters	Paradise Valley	2017
Mark S Talamonti	San Jose del Cabo,	2018
M. Ashraf Mansour	Mexico Las Vegas, NV	2019
David Farley	Virtual	2020
Leigh Neumayer	Indian Wells, CA	2021
Karen Brasel	Santa Barbara, CA	2022
Margo Shoup	Dana Point, CA	2023
Daniel Margulies	Colorado Springs, CO	2024
Maria B. Majella Doyle	Scottsdale, AZ	2025
C. Max Schmidt	Santa Fe, NM	2026

*Deceased

J. BRADLEY AUST, JR. PAST RECIPIENTS

The WSA J. Bradley Aust award was established in honor of WSA Past President (1989), Dr. J. Bradley Aust, Jr., who was a loyal devotee and attended nearly every meeting. The WSA J. Bradley Aust award is given in recognition of the best paper by a new member (within the first three years of membership).

Honorable Past Recipients

1998	R. Stephen Smith
1999	William C. Chapman
2000	M. Ashraf Mansour
2001	Kelly M. McMasters
2002	Mark S. Talamonti
2003	Nora Hansen
2004	Samuel K. Snyder
2005	Donald E. Low
2006	Frank R. Arko
2007	Jason B. Fleming
2008	Mark Faries
2009	Karen Borman
2010	Thomas Robinson
2011	MB Majella Doyle
2012	Thomas A. Aloia
2013	James W. Jakub
2014	Brian Badgwell
2015	Jason W. Smith
2016	John Morton
2017	Nabil Wasif
2018	Valentine Nfsonsam
2019	Mark S. Truty
2020	Amanda K. Arrington
2021	Cherisse Berry
2022	Ching-Wei Tzeng
2023	Timothy Newhook
2024	Mahmoud Malas
2025	Ruchir Puri

CME INFORMATION

In support of improving patient care, this activity has been planned and implemented by Amedco LLC and Western Surgical Association. Amedco LLC is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physicians (ACCME) Credit Designation Statement
Amedco LLC designates this live activity for a maximum of 15.50 *AMA PRA Category 1 Credits™* for physicians. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Other Professions
American Board of Surgery (ABS) MOC
Successful completion of this CME activity, which includes participation in the evaluation component, enables the learner to earn credit toward the CME and/or Self-Assessment requirements of the American Board of Surgery's Continuous Certification program. It is the CME activity provider's responsibility to submit learner completion information to ACCME for the purpose of granting ABS credit.

You must request your certificate within 30 days of the activity to meet the deadline for submission to PARS.

Disclosure Information
In accordance with the ACCME Accreditation Criteria, the American College of Surgeons must ensure that anyone in a position to control the content of the educational activity (planners and speakers/authors/discussants/moderators) has disclosed all financial relationships with any ineligible company held in the last 24 months. Please note that first authors were required to collect and submit disclosure information on behalf all other authors/contributors, if applicable.

CLAIMING CREDITS

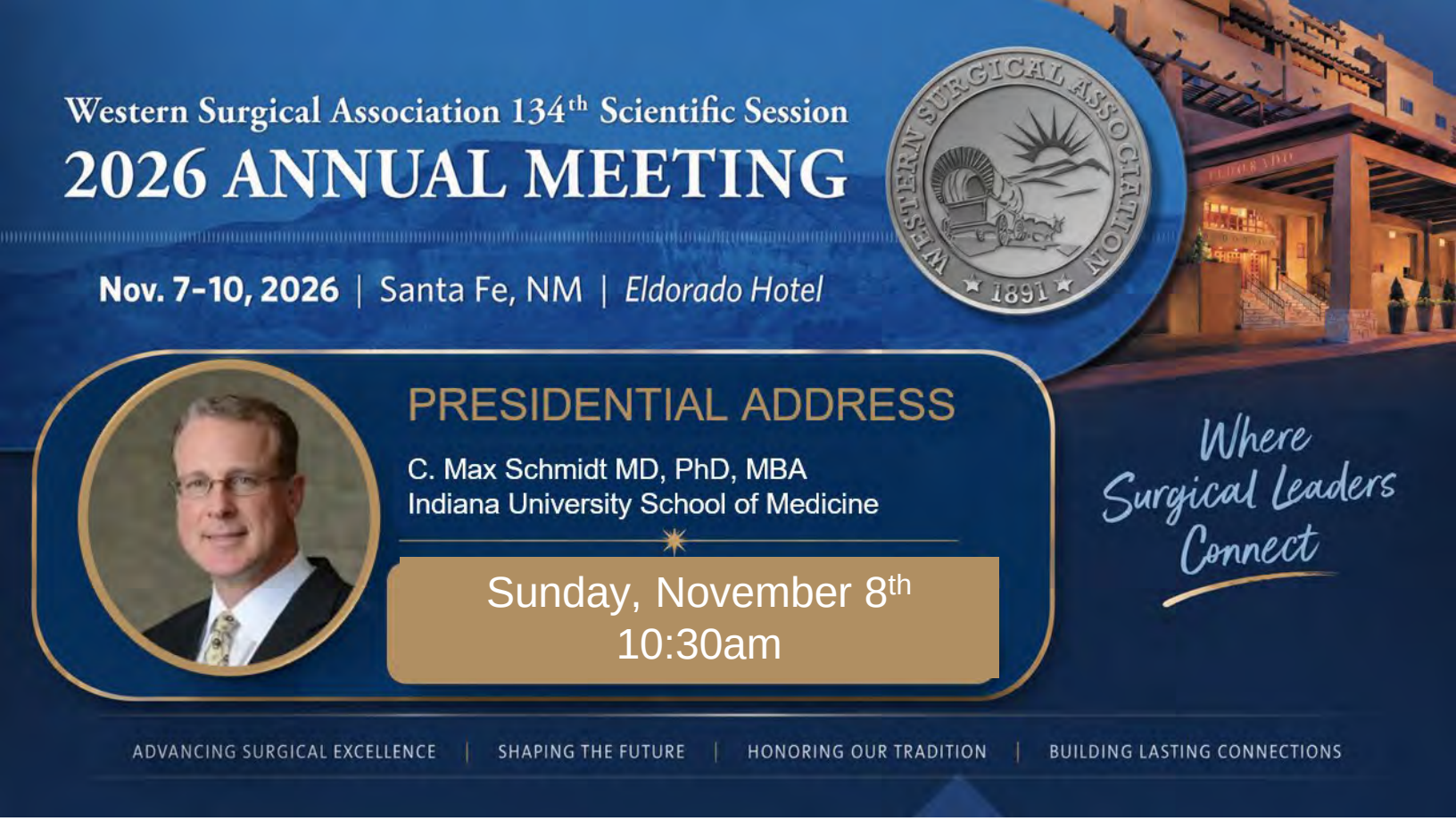
Registered attendees must complete this online application by **December 21, 2026** to claim CME for the WSA 2026 Annual Meeting.

Claim CME

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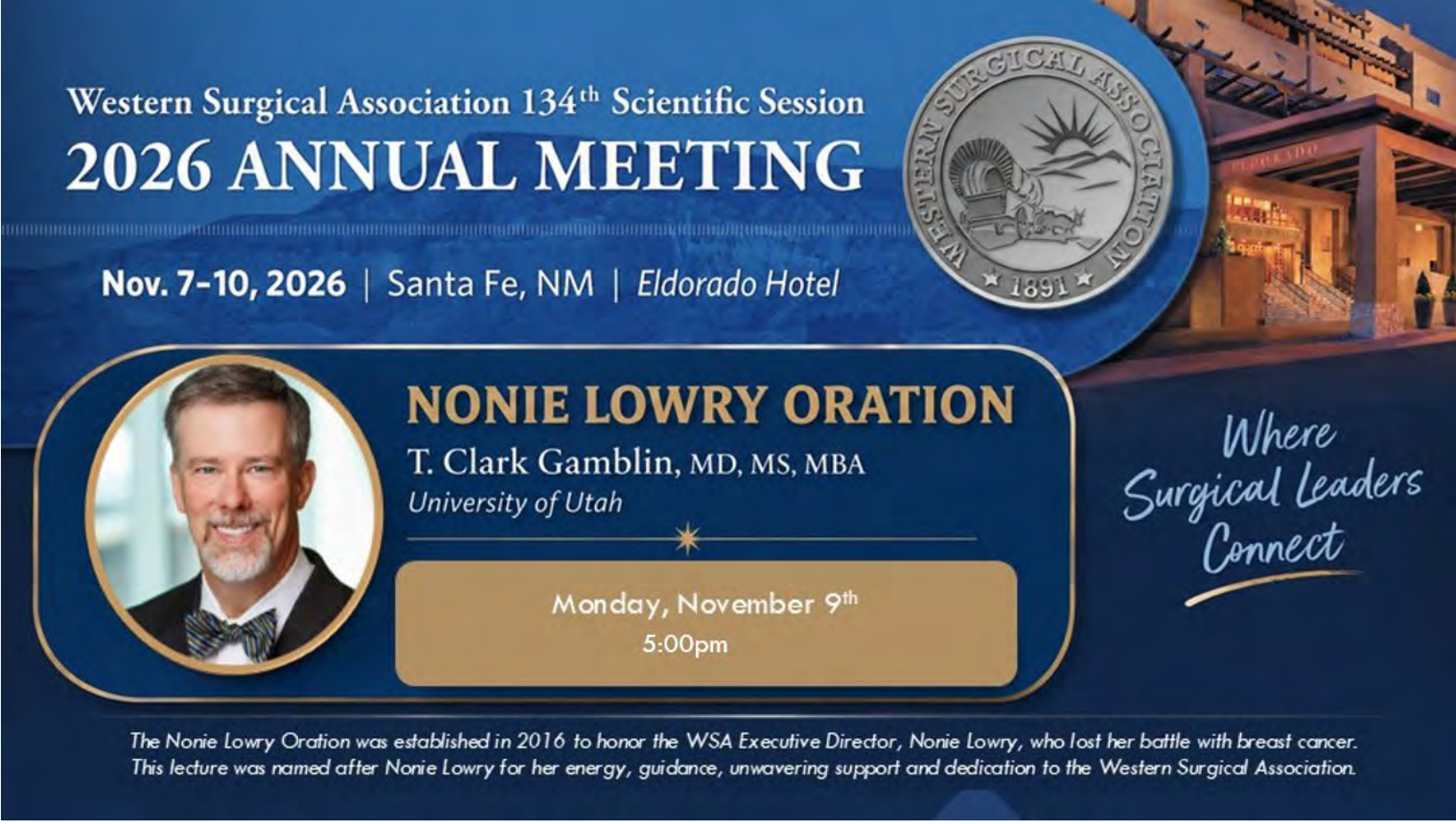
Lectures



Dr. C. Max Schmidt is Vice Chairman and Professor of Surgery, Biochemistry and Molecular Biology at Indiana University School of Medicine. He was the Director of Surgical Services at University & Methodist Hospitals (2019-2024). Dr. Schmidt has a broad surgical oncology practice with a niche focus in patients with pancreatic disease. He is an internationally recognized expert on cystic lesions of the pancreas and director of the Pancreatic Cyst and Cancer Early Detection Clinic (PCC-EDC), a joint effort among IU Health, IU School of Medicine, and the IU Simon Comprehensive Cancer Center.

Dr. Schmidt performs clinical trials and translational research directed at discovering novel biomarkers and targeted treatments of patients with pancreatic neoplasia. His research has been continuously funded for 24 years. Funding sources have included NIH, VA, ACS, AACR, PanCAN, Lustgarten Foundation and the Bigelow Charity Board. He currently is PI on an NIH U01 grant.

In the community, he has a significant following, evidenced by the Bigelow Charity Board, which holds major fundraisers for his early detection program. He is happily married for 37 years to his high school sweetheart, Christine Mae Schmidt, RN, MSN, MBA, and has 5 children (ages 20-31 years) & 4 grandchildren (ages 3 months & 5 years).



Dr. T. Clark Gamblin is the inaugural chief of the Division of Surgical Oncology in the Department of Surgery at the Spencer Fox Eccles School of Medicine. Dr. Gamblin also serves as an investigator at Huntsman Cancer Institute, a role that underscores his deep commitment to advancing cancer research and discovery.

Gamblin is a nationally and internationally recognized hepatopancreatobiliary (HPB) surgeon, with expertise in the surgical management of complex liver, pancreas, and biliary cancers. He joined the University of Utah (the U) from the Medical College of Wisconsin, where he served as chief of surgical oncology and vice chair of clinical operations for the department of surgery at the Froedtert & the Medical College of Wisconsin.

With over 20 years of experience, he has advanced minimally invasive techniques, regional chemotherapy, and data-driven care models. His work includes more than 250 peer-reviewed publications and service on national oncology committees. Trained in both clinical research and business, he brings a rare combination of surgical, academic, and operational leadership.

NONIE LOWRY ORATION

The Nonie Lowry Oration was established in 2016 to honor the WSA Executive Director, Nonie Lowry, who lost her battle with breast cancer. This lecture was named after Nonie Lowry for her energy, guidance, unwavering support and dedication to the Western Surgical Association.

2016 Anees Chagpar MD, MBA, MPH | Triple Negative Breast Cancer: Light Through the Darkness
2017 David Nagorney MD | Chasing Hepatic Metastases
2018 William C. Chapman MD | Current Treatment Strategies for Liver Cancer: What Have We Learned?
2019 Mary T Hawn MD, MPH | Lean In and Fail Fast: Resiliency in Academic Surgery
2020 No Lecture – Virtual Meeting
2021 Sherry Wren MD | Technical Advances in the Treatment of Pancreatic Body Tumors
2022 Nathalie Johnson MD | What's Love Got to Do With It?...Empathy and the Surgeon
2023 Tyler Hughes Sr. MD | Intentions
2024 Walter L. Biffl MD | Memories
2025 Taylor Riall MD, PhD | Both Sides Now

Scientific Schedule

SCHEDULE-AT-A-GLANCE

Saturday, November 7

6:30pm – 7:30pm **Welcome Reception** Casa Espana

Sunday, November 8

6:45am – 7:30am **Breakfast in Exhibit Hall** Eldorado B
7:15am – 9:00am **Welcome & Scientific Session 1** Eldorado A
8:00am – 10:00am **Spouse/Guest Breakfast** De Vargas
9:00am – 9:30am **Morning Break in Exhibit Hall** Eldorado B
9:30am – 10:30am **Scientific Session 2** Eldorado A
10:30am – 11:30am **Presidential Address** Eldorado A
-- Optional Afternoon Activities --

Monday, November 9

7:30am - 8:30am **Breakfast in Exhibit Hall** Eldorado B
7:30am - 8:30am **Mini Oral Sessions 1-5** Eldorado B
8:30am - 10:30am **Scientific Session 3** Eldorado A
8:00am - 10:00am **Spouse/Guest Breakfast** De Vargas
10:30am - 11:00am **Morning Break in Exhibit Hall** Eldorado B
11:00am - 1:00pm **Scientific Session 4** Eldorado A
1:00pm - 2:15pm --Lunch on Own--
-- Optional Afternoon Activities --
2:15pm - 3:15pm **Special Session** Eldorado A
3:15pm - 3:40pm **Afternoon Break in Exhibit Hall** Eldorado B
3:40pm - 5:00pm **Scientific Session 5** Eldorado A
5:00pm - 5:30pm **Nonie Lowry Oration** Eldorado A
5:30pm - 6:00pm **Annual Business Meeting** Eldorado A
7:00pm - 10:00pm **President's Reception & Dinner Dance** Anasazi Ballroom

Tuesday, November 10

7:30am - 8:45am **Attendee Breakfast** Eldorado B
7:30am - 8:30am **Mini Oral Sessions 6-10** Eldorado B
8:30am - 10:10am **Scientific Session 6** Eldorado A
10:00am - 11:10am **Quickshot Session** Eldorado A

REGISTRATION	EXHIBIT HALL
Sat 6:30pm–7:30pm at Welcome Reception-Casa Espana	*Location: Eldorado B*
Location: Eldorado Foyer	
Sun 6:45am – 11:30am	Sun 6:45am – 11:30am
Mon 7:00am – 5:30pm	Mon 7:00am – 3:40pm
Tues 7:30am – 11:00am	

Saturday, November 7

6:30pm - 7:30pm
Welcome Reception
Casa Espana

Sunday, November 8

6:45am - 7:30am
Continental Breakfast in Exhibit Hall
Eldorado B

7:15am – 9:00am
Welcome & Scientific Session 1
Eldorado A
Moderator: Christian Schmidt MD, PhD, MBA | Indiana University

QS 1. RESECTED SEROUS CYSTIC NEOPLASMS: PERSISTENT DIAGNOSTIC UNCERTAINTY IN THE MODERN ERA
Dhruv Patel MD | Indiana University School of Medicine

QS 2. TREATMENT AND OUTCOME IMPLICATIONS OF A POSITIVE SENTINEL LYMPH NODE BIOPSY IN T1B/T2A MELANOMA PATIENTS
Quinn Piamonte | University of Louisville

QS 3. PATIENT SATISFACTION SCORES IN CANCER CARE REVEAL QUALITY IMPROVEMENT OPPORTUNITIES FOR EARLY ONSET CANCER PATIENTS
Daniel Hoffman MD | City of Hope National Medical Center

1. OUTCOMES OF TAKE-DOWN OF FUNDOPLICATION AND CONVERSION TO FUNDOPLICATION VS. CONVERSION TO FUNDOPEXY IN THE MANAGEMENT OF REOPERATIVE LAPAROSCOPIC HIATAL HERNIA REPAIR
Peijun Zhao MS | McGovern Medical School at UT Health
Member Closer: Farzaneh Banki MD | UT Physicians
Invited Discussant: Mike Ujiki MD | Endeavor Health

2. THERAPEUTIC ANTICOAGULATION AND 30-DAY OUTCOMES AFTER BARIATRIC SURGERY: A MBSAQIP ANALYSIS, 2015-2023
Anoosh Farooqui MD | OSF Saint Francis Medical Center, Peoria
Member Closer: Vishnu Mani MD | University of Illinois Chicago
Invited Discussant: Stephen Haggerty MD | Endeavor Health

3. PREOPERATIVE RESPONSIVENESS TO WEIGHT LOSS ON GLP-1RA PREDICTS EFFICACY OF BARIATRIC SURGERY
Emil Maric MD | NorthShore University HealthSystem
Member Closer: Natalie Liu MD | Endeavor Health
Invited Discussant: Ninh Nguyen MD | University of California Irvine

8:00am - 10:00am
Spouse/Guest Breakfast
De Vargas

9:00am - 9:30am
Morning Break in Exhibit Hall
Eldorado A

9:30am – 10:30am
Scientific Session 2
Eldorado A
Moderator: Charles R. St. Hill MD | University of Nevada, Las Vegas

4. CLINICAL UNDERSTAGING IN GASTRIC SIGNET RING CELL CARCINOMA: FREQUENCY, SURVIVAL CONSEQUENCES, AND IMPLICATIONS FOR EMPIRIC NEOADJUVANT THERAPY
Jaimin Chauhan BMedSci, BMBS | University of Utah

Member Closer: T. Clark Gamblin MD, MS, MBA, FACS | University of Utah
Invited Discussant: Sabha Ganai MD PhD MPH FACS FSSO | Los Angeles General Medical Center

5. REVISITING THE OPTIMAL SEQUENCE OF TOTAL NEOADJUVANT THERAPY IN LOCALLY ADVANCED RECTAL CANCER
Swathi Raikot MBBS | Morehouse School of Medicine
Member Closer: Valentine Nfonsam MD | Morehouse School of Medicine
Invited Discussant: Amy Halverson MD | Northwestern University

6. DIFFERENTIAL EFFECTS OF BODY MASS INDEX AND SOCIAL VULNERABILITY INDEX ON STAGE AND SURVIVAL IN EARLY-ONSET COLORECTAL CANCER: INSIGHTS FROM A 25-YEAR MULTICENTER ANALYSIS
Corey Hounschell DO | John Wayne Cancer Institute at Providence Saint John
Member Closer: Anton Bilchik MD, PhD | John Wayne Cancer Institute at Providence Saint John
Invited Discussant: TBD

10:30am - 11:30am
Presidential Address
Eldorado A
Introduction:
Charles R. St. Hill MD | University of Nevada, Las Vegas

WSA President
C. Max Schmidt MD, PhD, MBA

–Optional Afternoon Activities–

Monday, November 9

7:30am - 8:30am
Continental Breakfast in Exhibit Hall
Eldorado B

7:30am - 8:30am
Mini Oral Sessions 1-5
Eldorado B
See Directory for individual listings

Mini Oral Session 1
Moderator(s): TBD

Mini Oral Session 2
Moderator(s): Erin Maynard MD | Oregon Health & Science University;

Mini Oral Session 3
Moderator(s): Yun Shin Chun MD | UT MD Anderson Cancer Center; Ryne Marshall MD | University of Louisville

Mini Oral Session 4
Moderator(s): Ninh Nguyen MD | University of California Irvine; Nicholas Nash MD | University of Louisville

Mini Oral Session 5
Moderator(s): Marshall Baker MD, MBA | Huntsman Cancer Institute/University of Utah; Rachel Morris MD | Medical College of Wisconsin

8:30am - 10:30am
Scientific Session 3
Eldorado A
Moderator: Melanie Goldfarb MD | Saint Johns Cancer Institute

***Aust Award Candidate** **7. THE CLOCK AND THE CLOT: DOES DELAYING CHOLECYSTECTOMY CHANGE OUTCOMES IN ANTICOAGULATED PATIENTS?**
James Flippin MD | OSF Saint Francis Medical Center, Peoria

Member Closer: James Flippin MD | OSF Saint Francis Medical Center, Peoria
Invited Discussant: Benjamin Jarman MD | Gundersen Medical Foundation

8. BAILOUT STRATEGIES IN CHOLECYSTECTOMY: SURGEON-LEVEL RATES AND THE PROCEDURAL TRADE-OFF OF POSTOPERATIVE MORBIDITY
Omneya kandil MD | Mayo Clinic Arizona
Member Closer: Devendra Joshi MD | Mayo Clinic Arizona
Invited Discussant: Galinos Barmparas MD | Cedars-Sinai Medical Center

***Aust Award Candidate 9. ACUTE CARE SURGICAL OUTCOMES IN CRITICAL ACCESS HOSPITALS ARE COMPARABLE TO LARGER URBAN AND RURAL FACILITIES IN KENTUCKY**
Ryne Marshall MD | University of Louisville
Member Closer: Ryne Marshall MD | University of Louisville
Invited Discussant: Gail Tominaga MD | Scripps Memorial Hospital La Jolla

10. WHEN TRANSFER FAILS TO HELP: CHARACTERIZING POTENTIALLY FUTILE EMERGENCY GENERAL SURGERY TRANSFERS
Manuel Castillo-Angeles MD, MPH | Brigham and Women's Hospital
Member Closer: Ali Salim MD | Brigham and Women's Hospital
Invited Discussant: Nicholas Nash MD | University of Louisville

11. RIGHT-SIZING GERIATRIC TRAUMA: PROTOCOL-DRIVEN TRIAGE REDUCES TRAUMA ACTIVATIONS WITHOUT COMPROMISING SAFETY
Andrew Maneval MD | Cedars-Sinai Medical Center
Member Closer: Galinos Barmparas MD | Cedars Sinai Medical Center
Invited Discussant: Susan Rowell MD MBA MCR | University of Arizona

12. ROUTINE BUT INEFFECTIVE? SALINE HYDRATION PROPHYLAXIS BEFORE PERIPHERAL VASCULAR INTERVENTION
Pooria Nakhaei MD, MBA | University of California, San Diego
Member Closer: Mahmoud Malas MD, MHS, RPVI | University of California, San Diego
Invited Discussant: Ashraf Mansour MD | Corewell Health - MSU

10:30am - 11:00am
Morning Break in Exhibit Hall
Eldorado B

11:00am – 1:00pm
Scientific Session 4
Eldorado A
Moderator: Constantine Godellas MD | Ascension Illinois

13. ESOPHAGECTOMY READMISSIONS AND THEIR COST: A NATIONAL READMISSIONS DATABASE ANALYSIS OF COMORBIDITY BURDEN AND EARLY COMPLICATIONS
Joseph DeMeyer BS | University of Illinois College of Medicine- Peoria
Member Closer: James Flippin MD | OSF Saint Francis Medical Center, Peoria
Invited Discussant: John Potts MD | Superior Value in Program Accreditation GME Consultants

14. Primary Dermal Melanoma Demonstrates Similar Survival to Stage-Matched Cutaneous Melanoma: A Multi-Institutional Case-Control Study
Ahmed Taha MD | Mayo Clinic Florida
Member Closer: James Jakub MD | Mayo Clinic Florida
Invited Discussant: Michael Egger MD, PhD, MPH | University of Louisville

15. THE SOUND EFFECT: IMPLICATIONS OF AXILLARY STAGING OMISSION IN THE SETTING OF RADIATION DE-ESCALATION
Lauren Geisel MD | Saint John's Cancer Institute
Member Closer: Janie Grumley MD | Saint John's Cancer Institute
Invited Discussant: Nora Hansen MD | Feinberg School of Medicine, Northwestern University

16. LOCALIZED PANCREATIC DUCTAL ADENOCARCINOMA; IS THE POTENTIAL BENEFIT OF NEOADJUVANT THERAPY STAGE DEPENDENT?
Simon Park PhD | Loyola University Medical Center
Member Closer: Marshall Baker MD, MBA | University of Utah

Invited Discussant: Michael Choti MD | Banner MD Anderson Cancer Center

17. CLINICAL UTILITY OF PERITONEAL FLUID CA 19-9/CEA LEVELS DURING STAGING LAPAROSCOPY FOR PANCREATIC DUCTAL ADENOCARCINOMA: PREDICTING OCCULT AND SUBSEQUENT DISEASE

Emily Siegler MD | Mayo Clinic Rochester
Member Closer: Mark Truty MD, MS | Mayo Clinic Rochester
Invited Discussant: Matthew Hernandez MD | University of New Mexico

18. MOLECULAR RESIDUAL DISEASE DETECTION DOUBLES RECURRENCE RISK FOLLOWING CURATIVE-INTENT THERAPY FOR HEPATOCELLULAR CARCINOMA

Robert Martin MD, PhD | University of Louisville
Member Closer: Robert Martin MD, PhD | University of Louisville
Invited Discussant: Maria Doyle MD, MBA | Washington University in St. Louis

1:00pm - 2:15pm
Enjoy Lunch on Own

2:00pm - 4:00pm
Optional Spouse/Guest Tour: WSA Artful Escape – Canyon Road

2:15pm - 3:15pm
Special Session - Training for Tomorrow
Eldorado A
Moderator:
Melanie Goldfarb MD | Saint John's Cancer Institute

Program Director Training Perspective
Jennifer Yu MD | Washington University School of Medicine in St. Louis

Training the Next Generation of Community Surgeons
Margo Shoup MD, MBA | Gig Harbor, Washington

Training and Workforce
Kyla Terhune MD, MBA, FACS | American College of Surgeons

3:15pm - 3:40pm
Afternoon Break in Exhibit Hall
Eldorado B

3:40pm – 5:00pm
Scientific Session 5
Eldorado A
Moderator: Michael McCormack MD | Northshore University Healthsystem

19. LIVER TRANSPLANTATION FOR CHOLANGIOCARCINOMA IN THE UNITED STATES: AN ANALYSIS OF 1,551 PATIENTS OVER FOUR DECADES

Sally Campbell MD | Washington University in Saint Louis
Member Closer: Maria Bernadette Doyle MD, MBA | Washington University, St Louis
Invited Discussant: Alexandra Bolognese MD, PhD | Oregon Health & Science University

20. CONTEMPORARY LIVER TRANSPLANTATION IN SEPTUAGENARIANS: A LARGE SINGLE-CENTER ANALYSIS IN A HIGH ACUITY COHORT

Reghan Conrey MD | University of California, Los Angeles
Member Closer: Fady Kaldas MD |University of California, Los Angeles
Invited Discussant: Erin Maynard MD | Oregon Health & Science University

21. THE ELPHANT IN THE ROOM: THE NEGATIVE IMPACT ON KIDNEY TRANSPLANT RECIPIENTS WHEN NORMOTHERMIC REGIONAL PERFUSION IS NOT UTILIZED IN DONATION AFTER CIRCULATORY DEATH DONORS

Hunter Moore MD, PhD | AdventHealth Transplant Institution at Porter Hospital
Member Closer: Hunter Moore MD, PhD | AdventHealth Transplant Institution at Porter Hospital
Invited Discussant: Brendan Lovasik MD | Mayo Clinic

22. AFTER THE RESCUE: TWELVE-MONTH OUTCOMES FROM THE RESTORE TRIAL OF NORMOTHERMIC MACHINE PERFUSION FOR DECLINED LIVER A NON-RANDOMIZED CLINICAL TRIAL
Omar Alomar MD, MSCI | Washington University in Saint Louis
Member Closer: Maria Bernadette Doyle MD, MBA | Washington University, St Louis
Invited Discussant: Fady Kaldas MD | UCLA Health

5:00pm - 5:30pm
Nonie Lowry Oration
Eldorado A
Introduction:
C. Max Schmidt MD, PhD, MBA | Indiana University School of Medicine

Grit
T. Clark Gamblin MD, MS, MBA | University of Utah

5:30pm - 6:00pm
Annual Business Meeting
Eldorado A

7:00pm - 10:00pm
President's Reception and Dinner Dance
Anasazi Ballroom
Western Cocktail Attire preferred

Tuesday, November 10

7:30am - 8:45am
Continental Breakfast
Eldorado A

7:30am - 8:30am
Mini Oral Sessions 6-10
Eldorado B
See Directory for individual listings

Mini Oral Session 6
Moderator(s): Daniel Margulies MD | Cedars Sinai Medical Center
Mini Oral Session 7
Moderator(s): Richard Anderson MD | University of Illinois College of Medicine at Peoria
Mini Oral Session 8
Moderator(s): Saju Joseph MD | Touro University Nevada
Mini Oral Session 9
Moderator(s): Brian Smith MD | UCI Health
Mini Oral Session 10
Moderator(s): Jordan Weinberg MD | Creighton University School of Medicine Phoenix Regional Campus

8:30am – 10:10am
Scientific Session 6
Eldorado A
Moderator:
WSA President Elect

23. COMBINED BASELINE AND DYNAMIC IMMUNONUTRITIONAL SUPPRESSION LEADS TO REDUCED OVERALL SURVIVAL IN PULMONARY LOBECTOMY PATIENTS
Andrew Bedard BS | University of South Florida Morsani College of Medicine
Member Closer: Jason Fleming MD | University of Texas Southwestern Medical Center

Invited Discussant: Amalia Cochran MD | University of Florida

24. PREOPERATIVE PERIHEPATIC TUMOR BURDEN PREDICTS CYTOREDUCTIVE SURGERY COMPLEXITY AND RECURRENCE FOLLOWING CRS-HIPEC FOR PSEUDOMYXOMA PERITONEI

Varun Bansal MBBS | University of Colorado School of Medicine
Member Closer: Steven Ahrendt MD | University of Colorado
Invited Discussant: Charles Scoggins MD, MBA | University of Louisville

25. IS OLD STILL THE GOLD STANDARD? OPEN VERSUS MINIMALLY INVASIVE DRAINAGE OF PANCREATIC PSEUDOCYSTS

Sai Krishna Bhogadi MD | Baptist Health Sciences University
Member Closer: Stephen Behrman MD, FACS | Baptist Health Sciences University
Invited Discussant: Richard Bold MD | Mayo Clinic Arizona

26. LATENT CLASS ANALYSIS IDENTIFIES FOUR PROGNOSTICALLY DISTINCT COMPLICATION PHENOTYPES AFTER PANCREATICODUODENECTOMY

Muhammad Mirza MD | University of Arizona
Member Closer: Mohammad Khreiss MD | University of Arizona
Invited Discussant: Yun Shin Chun MD | UT MD Anderson Cancer Center

27. HOSPITAL FINANCIAL IMPLICATIONS OF IMPLEMENTING A ROBOTIC PANCREATODUODENECTOMY PROGRAM

Dillon Cheung MD | Mayo Clinic Arizona
Member Closer: Zhi Ven Fong MD, MPH, DrPH | Mayo Clinic Arizona
Invited Discussant: TBD

10:10am - 11:10am

Quickshot Session

Eldorado A

Moderator: Jasmeet Paul MD | University of New Mexico

QS 4. UNCOMPLICATED RECOVERY: EARLY DISCHARGE AFTER SURGERY FOR COMPLICATED APPENDICITIS IS SAFE AND INCREASINGLY ACHIEVABLE

Andrew Maneval MD | Cedars-Sinai Medical Center

QS 5. POUCH FAILURE IN CROHN'S DISEASE - A PERSISTENT PROBLEM IN THE MODERN BIOLOGIC ERA

Mayar Alatout MBBS | Mayo Clinic Arizona

QS 6. EARLY HYPERCALCEMIA AND POSTINJURY MORTALITY: RISK FACTOR, BIOMARKER OR EPIPHENOMENON?

Ella Freimuth n/a | Denver Health

QS 7. NONOPERATIVE MANAGEMENT OF GUNSHOT WOUNDS TO THE LIVER: HAS THE PENDULUM SWUNG TOO FAR?

Carlos Balthazar da Silveira MD | Creighton University School of Medicine

QS 8. POST-DISCHARGE OUTCOMES OF UPFRONT SURGICAL NECROSECTOMY VERSUS STEP-UP APPROACH IN NECROTIZING PANCREATITIS

Hamidreza Hosseinpour MD | Baptist Health Sciences University

QS 9. LONG-TERM COST-EFFECTIVENESS OF ROUX-EN-Y GASTRIC BYPASS AND SLEEVE GASTRECTOMY FOR OBESITY

Nicholas Prindeze MD | University of California, Irvine Medical Center

Mini Oral Directory

MINI ORAL SESSION 1

MO 1. DE-WORMING FANTASIES: REPURPOSED ANTI-PARASITIC DRUGS ARE INEFFECTIVE IN PANCREATIC DUCTAL ADENOCARCINOMA PATIENT-DERIVED XENOGRAFT MODELS
Emily Siegler MD | Mayo Clinic Rochester

MO 2. CONTINUED OBJECTIVE RESPONSE THROUGHOUT NEOADJUVANT CHEMOTHERAPY IN PANCREATIC DUCTAL ADENOCARCINOMA
Emily Siegler MD | Mayo Clinic Rochester

MO 3. RURAL-URBAN DISPARITIES IN MORTALITY FROM EMERGENCY LAPAROTOMY-ASSOCIATED ABDOMINAL CATASTROPHES AMONG WORKING-AGE ADULTS: A CDC WONDER ANALYSIS
Marissa Bokhari-Keck MPH | OSF Saint Francis Medical Center, Peoria

MO 4. WHERE DID THE CHOLANGIOGRAM GO? INTRAOPERATIVE CHOLANGIOGRAM UTILIZATION AND OUTCOMES IN THE ROBOTIC CHOLECYSTECTOMY ERA
Sophie Gonzalez MD | Cedars-Sinai Medical Center

MO 5. IS THERE A MINIMUM UTILIZATON RATE OF INTRAOPERATIVE CHOLANGIOGRAM DURING CHOLECYSTECTOMY FOR IT TO BE PROTECTIVE OF BILE DUCT INJURIES?
Omneya kandil MD | Mayo Clinic Arizona

MO 6. ABDOMINAL PACKING AS A DAMAGE-CONTROL STRATEGY IS ASSOCIATED WITH REDUCED ANASTOMOTIC BILIARY STRICTURE AFTER LIVER TRANSPLANTATION
Tatsuya Sakamoto MD | University of California, Los Angeles

MO 7. THE SURVIVAL ADVANTAGE OF ENDOVASCULAR REPAIR OF INFRARENAL ABDOMINAL AORTIC ANEURYSMS COMPARED TO OPEN AORTIC REPAIR IS AGE DEPENDENT: A SPLINE MODEL ANALYSIS
Narek Veranyan MD | University of California, San Diego

MO 8. RULE OF TENS VS. PARKLAND FORMULA FOR BURN RESUSCITATION
Mary Layton Waer PharmD | University of Florida

MO 9. BEYOND BTAI GRADE: MECHANISM OF INJURY IS ASSOCIATED WITH DISTINCT AORTIC INJURY MORPHOLOGY AND OUTCOMES - A MULTICENTER REGISTRY ANALYSIS
Kay Smith BS | Oregon Health & Science University

MO 10. CAN SELECTED NF1 ASSOCIATED GISTS BE SAFELY OBSERVED?
Meredith Freeman MD MS MPH | Washington University in Saint Louis

MO 11. CLINICAL UTILITY OF PREOPERATIVE DOTATATE PET SCAN IN THE SURGICAL MANAGEMENT OF PANCREATIC NEUROENDOCRINE TUMORS
Itay Bengad MD | University of Arizona

MINI ORAL SESSION 2

MO 12. SURGICAL DECISION-MAKING VALUE OF PREOPERATIVE CA19-9 IN INTRAHEPATIC CHOLANGIOCARCINOMA: NATIONAL CANCER DATABASE OUTCOMES
Rayner Cardoso MBBS | University of Utah

MO 13. PREDICTOR PATTERNS FOR READMISSION FOLLOWING LAPAROSCOPIC COLECTOMY: A NATIONAL ANALYSIS OF EMERGENT VERSUS ELECTIVE OUTCOMES FROM THE NATIONAL READMISSIONS DATABASE
Pooja Ajith | OSF Saint Francis Medical Center, Peoria

MO 14. OBESITY SEVERITY AND EARLY OUTCOMES AFTER BARIATRIC SURGERY: AN MBSAQIP ANALYSIS, 2015-2023
Anoosh Farooqui MD | OSF Saint Francis Medical Center, Peoria

MO 15. MICROMOBILITY DEVICE ASSOCIATED INJURIES: A NATIONAL HEALTH CARE CRISIS
Isabella Bernhardt BA | Denver Health

MO 16. RECURRENCE PATTERNS AND SURVIVAL AFTER HEPATECTOMY FOR COLORECTAL LIVER METASTASES: CLUES TO EXCEPTIONAL RESULTS OF LIVER TRANSPLANTATION FOR A SYSTEMIC DISEASE
Kristen Quinn MD | The University of Texas MD Anderson Cancer Center

MO 17. GASTROINTESTINAL CANCER SURGERY IN PATIENTS ON MAINTENANCE HEMODIALYSIS: A PROPENSITY SCORE-MATCHED NATIONAL COHORT ANALYSIS
Ali Abdelhady MD | University of Utah

MO 18. OUTCOMES OF PRIMARY AND REOPERATIVE LAPAROSCOPIC HIATAL HERNIA REPAIR WTH FUNDOPEXY
Owen Ferriola MS | McGovern Medical School at UT Health

MO 19. LIVER NON-USE RATE IN ORGAN DONATION AFTER CIRCULATORY DEATH AS A FUNCTION OF RECOVERY TIME OF DAY IN THE UNITED STATES
Mohamed Hamed MD | Denver Health
MO 20. ADDICTION CONSULTS FOR TRAUMA PATIENTS: QUALITY CARE WITHOUT EXTENDED HOSPITAL STAYS
Reed Kellam BS | University of New Mexico
MO 22. HOW DOES A LATE START PROPAGATE? EXAMINING THE CASCADE EFFECT OF FIRST CASE DELAYS IN PLASTIC SURGERY OPERATING ROOMS
Sihan Hao BS | University of Pittsburgh
MO 23. EFFECT OF EARLY EXTUBATION ON OUTCOMES WITHIN THE SURGICAL ICU
Alexandra Campbell n/a | Medical College of Wisconsin

MINI ORAL SESSION 3

MO 24. ASSOCIATION BETWEEN TEXTBOOK OUTCOMES AND LONG-TERM PATIENT-REPORTED RECOVERY AFTER PANCREATIC RESECTION
Evelyn Alexander MD | University of Arizona
MO 25. CHRONIC KIDNEY AND LIVER DISEASE IN PATIENTS WITH GERD ON PPI THERAPY AND THEIR ASSOCIATION WITH CYP2C19 POLYMORPHISMS
Keeyon Olia D.O. | University of Florida
MO 26. THE PLANE, PROSTHESIS AND PATIENT: OUTCOMES OF OPEN PREPERITONEAL VENTRAL HERNIA IN THE 'IDEAL' PATIENT
Lucy Hinton MBChB | Endeavor Health
MO 27. GRADED IMPACT OF ASCITES ON OUTCOMES ACROSS MELD CATEGORIES: NATIONAL ANALYSIS OF EXPLORATORY LAPAROTOMY - A 101,157-PATIENT NSQIP ANALYSIS
Mahilet Assefa MD | OSF Saint Francis Medical Center, Peoria
MO 28. DEVELOPING PHYSICIAN LEADERS THROUGH HEALTHCARE IMPROVEMENT: OUTCOMES OF AN INTERDISCIPLINARY LONGITUDINAL LEADERSHIP PROGRAM
Tara Cohen PhD | Cedars-Sinai Medical Center
MO 29. LIVER RE-TRANSPLANTATION FOLLOWING PEDIATRIC PRIMARY TRANSPLANT: A THREE DECADE SINGLE CENTER EXPERIENCE
Ted Li BS | University of California, Los Angeles
MO 30. NATIONAL VARIATION IN INCIDENCE, MANAGEMENT, AND HEALTHCARE UTILIZATION OF APPENDICEAL CANCER
Eman Zineldin MD | University of Utah
MO 31. ROBOTIC VERSUS OPEN CYTOREDUCTIVE SURGERY FOR LIMITED PERITONEAL METASTASES: A PROPENSITY SCORE MATCHED ANALYSIS
M Daniyal Tanweer MD | City of Hope National Medical Center
MO 32. SMOKING CESSATION TIMING PREDICTS PERIOPERATIVE STROKE RISK AFTER TCAR
Noor Fatima MD | University of California, San Diego
MO 34. TOO BIG TO FAIL? DEVELOPING A PREDICTIVE MODEL OF CRADLE COMPRESSION DURING NORMOTHERMIC MACHINE PERFUSION IN LIVER TRANSPLANTATION
Brendan Lovasik MD | Washington University in Saint Louis
MO 35. SOCIOECONOMIC DISTRESS AND OUTCOMES AFTER SUPRAINGUINAL BYPASS: A NATIONAL VASCULAR QUALITY INITIATIVE ANALYSIS
Noor Fatima MD | University of California, San Diego

MINI ORAL SESSION 4

MO 36. PRIOR VENOUS THROMBOEMBOLISM AND AGE-STRATIFIED 30-DAY OUTCOMES AFTER BARIATRIC SURGERY: AN MBSAQIP ANALYSIS, 2015-2023
Anoosh Farooqui MD | OSF Saint Francis Medical Center, Peoria
MO 37. INSURANCE STATUS IS ASSOCIATED WITH TRAUMA PATIENT LENGTH OF STAY RATHER THAN AREA DEPRIVATION INDEX
Saskya Byerly MD | University of Tennessee Health Science Center
MO 38. SURGERY-RELATED RESOURCE DISTRIBUTION BY RURALITY: WHAT WE DO AND DO NOT KNOW
Dorothy Hughes PhD, MHSA | University of Kansas School of Medicine
MO 39. CONTEMPORARY PRACTICE PATTERNS OF CARE AND OUTCOMES IN RETROPERITONEAL SARCOMA IN THE UNITED STATES
Madeleine Beck BS | University of Nevada Reno School of Medicine

MO 40. QUALITY OF LIFE (QOL) AFTER INFECTED PANCREATIC NECROSIS TREATED WITH VIDEO ASSISTED RETROPERITONEAL DEBRIDEMENT (VARD) VS. ENDOSCOPIC NECROSECTOMY (EN) - A RETROSPECTIVE COHORT STUDY
Christina Shields MD | The University of Texas at Austin

MO 41. CLINICAL STAGE IB HEPATOCELLULAR CANCER: IS LIVER TRANSPLANTATION BEST DESTINATION THERAPY IN EVERY CASE?
Simon Park PhD | Loyola University Medical Center

MO 43. AN ANALYSIS OF TRANSTHORACIC ECHOCARDIOGRAM UTILITY IN TRAUMA PATIENTS
Giovanna Dela Tejera MD | The University of Texas at Austin

MO 45. TAKE BACK THE PANCREAS! FACTORS ASSOCIATED WITH FAILURE OF ENDOSCOPIC TRANSGASTRIC NECROSECTOMY FOR WALLED-OFF PANCREATIC NECROSIS
Jessica Zimmerman MD | The University of Texas at Austin

MO 46. VIDEO-ASSISTED RETROPERITONEAL DEBRIDEMENT (VARD) HALTS NUTRITIONAL DETERIORATION IN PATIENTS WITH INFECTED PANCREATIC NECROSIS
Oyinkansola Akinpelu MD | The University of Texas at Austin

MO 47. FAILURE-TO-RESCUE AFTER BARIATRIC SURGERY: AGE-STRATIFIED ANALYSIS OF MBSAQIP
Rishabh Patel BS | OSF Saint Francis Medical Center, Peoria

MO 48. UTILIZATION OF PERIOPERATIVE BLOOD TRANSFUSION AMONG SURGICAL PATIENTS AT A TERTIARY REFERRAL HOSPITAL IN TANZANIA
Nicholas Maamari MD | University of New Mexico

MINI ORAL SESSION 5

MO 49. ODDS OF READMISSIONS FOLLOWING PRIMARY LAPAROSCOPIC HIATAL HERNIA REPAIR
Ivy Zheng MS | McGovern Medical School at UT Health

MO 50. FACILITY TYPE, PRIMARY LOCATION AND OVERALL SURVIVAL IN GASTRIC ADENOCARCINOMA: A NATIONAL CANCER DATABASE STUDY
Yara Sakr MD | University of Utah

MO 51. THE PREVALENCE AND PREDICTORS OF PELVIC ANGIOEMBOLIZATION IN OLDER ADULTS FOLLOWING SAME-LEVEL FALLS: A TQIP ANALYSIS
Erika Wilt MD | University of Tennessee Health Science Center

MO 52. MEASURING THE INTER-RATER RELIABILITY OF TRAUMA VIDEO REVIEW FOR PROCEDURAL TIMING
Regan Cooper | The University of Texas at Austin

MO 53. SEED VERSUS SOIL: IMPACT OF HOSPITAL VOLUME ON EARLY SURGEON LEARNING CURVE FOR OPEN PANCREATODUODENECTOMY
Dhruv Patel MD | Indiana University School of Medicine

MO 54. INTUBATING UNDER PRESSURE: THE ROLE OF PUSH-DOSE PRESSORS IN HEMODYNAMIC AUGMENTATION DURING RAPID SEQUENCE INTUBATION
Regan Cooper | The University of Texas at Austin

MO 55. INSURANCE STATUS AND OUTCOMES AFTER INFRAINGUINAL BYPASS FOR CHRONIC LIMB-THREATENING ISCHEMIA
Ammar Abdullah MD | University of California, San Diego

MO 56. POSITIVE FAST GETS YOUR THERE FASTER
Samantha Speroni MD | The University of Texas at Austin

MO 57. INSTITUTIONAL PRACTICES IN THE RECOGNITION AND MANAGEMENT OF VASOPRESSOR-INDUCED DIGITAL ISCHEMIA: A QUALITY IMPROVEMENT STUDY
Nicole Rossi MD | Huntington Hospital

MO 58. COMMUNICATION FAILURES DURING SIMULATED OPERATIVE TRAUMA RESUSCITATION: IDENTIFICATION OF LATENT PATIENT SAFETY VULNERABILITIES
Tara Cohen PhD | Cedars-Sinai Medical Center

MINI ORAL SESSION 6

MO 60. OCCULT BREAST CANCER IDENTIFIED AT ELECTIVE PLASTIC SURGERY: AN ENTERPRISE WIDE ANALYSIS OF LOCAL AND REGIONAL MANAGEMENT PRACTICES
Monica Price MD | Mayo Clinic Florida

MO 61. INCIDENTAL OR SUSPECTED? RETHINKING PULMONARY EMBOLI AS A QUALITY METRIC IN TRAUMA
Sophie Gonzalez MD | Cedars-Sinai Medical Center

MO 62. GRADED IMPACT OF MELD SCORE ON MORBIDITY AND MORTALITY FOLLOWING HERNIA REPAIR: AN ACS NSQIP ANALYSIS OF 59,146 PATIENTS
Rishabh B. Patel BS | OSF Saint Francis Medical Center, Peoria

MO 63. OPERATIVE DURATION AS AN INDEPENDANT PREDICTOR OF 30-DAY MORBIDITY AND MORTALITY FOLLOWING METABOLIC AND BARIATRIC SURGERY: A NATIONAL ANALYSIS OF MBSAQIP 2015-2023
Anoosh Farooqui MD | OSF Saint Francis Medical Center, Peoria

MO 64. TOO INJURED TO SHARE: SURROGATE DECISION-MAKING IN OLDER ADULTS WITH TRAUMATIC BRAIN INJURY
Rachel Morris MD | University of Maryland

MO 65. LONGITUDINAL TRENDS IN SCORE WEB PORTAL USAGE: AN UPDATED ANALYSIS OF SURGICAL RESIDENT LEARNING
Susmita Singh PhD | Cooper University Healthcare

MO 66. TXA IN PENETRATING INJURY: HELPFUL OR HARMFUL? A SECONDARY ANALYSIS OF TWO RANDOMIZED CONTROLLED TRIALS OF PREHOSPITAL TXA
Brooke Brinkman n/a | University of Chicago

MO 68. DIFFERENTIAL OUTCOMES FOLLOWING SPLIT-THICKNESS SKIN GRAFTING IN BURN AND TRAUMA PATIENTS: A PROPENSITY-MATCHED ANALYSIS
Itasha Kooner Student | Riverside Community Hospital

MO 69. HIGH EJECTION FRACTION GALLBLADDER: A MISUNDERSTOOD SOURCE OF BILIARY PAIN
Malihet Assefa MD | OSF Saint Francis Medical Center, Peoria

MO 70. ADULT GASTROINTESTINAL DUPLICATION CYSTS: A QUATERNARY REFERRAL CENTER EXPERIENCE
Abdelaziz Osman MBBCh, MSc | Mayo Clinic Arizona

MINI ORAL SESSION 7

MO 71. GEOGRAPHIC AND SEX-BASED DISPARITIES IN PROCEDURE-ASSOCIATED HERNIA MORTALITY IN THE UNITED STATES: POST-PANDEMIC TRENDS- CDC
Marissa Bokhari-Keck MPH | OSF Saint Francis Medical Center, Peoria

MO 72. ACUTE APPENDICITIS IN KENTUCKY: EPIDEMIOLOGY AND INTERFACILITY TRANSFERS FROM 2009 TO 2023
Victoria Hammond MD, MSt | University of Louisville

MO 73. HIATAL HERNIA IN OBESE PATIENTS, CLINICAL CHARACTERISTICS AND OUTCOMES OF PRIMARY LAPAROSCOPIC REPAIR
Tony Tran MS | McGovern Medical School at UT Health

MO 74. HIGH-DENSITY CELL RESPIRATOR (HDCR) AS A NEW TISSUE CULTURE METHOD TO IMPROVE EFFICIENCY OF SURGEON SCIENTISTS
Jennifer Cillis MD | City of Hope National Medical Center

MO 75. PREDICTIVE ACCURACY OF THE COLON LEAKAGE SCORE FOR ANASTOMOTIC LEAK AFTER LEFT-SIDED COLORECTAL SURGERY: A SYSTEMATIC REVIEW AND META-ANALYSIS
Shugofta Aziz MBBS | OSF Saint Francis Medical Center, Peoria

MO 76. BEYOND A LOW EJECTION FRACTION: HISTOPATHOLOGY AND SYMPTOM RESOLUTION IN PEDIATRIC BILIARY DYSKINESIA.
Shamon Gumbs MD | OSF Saint Francis Medical Center, Peoria

MO 77. DECREASING AGAINST MEDICAL ADVICE DISCHARGES: THE VALUE OF AN INPATIENT ADDICTION MEDICINE SERVICE FOR UNHOUSED TRAUMA PATIENTS
Bradley Noble BS | University of New Mexico

MO 78. SHORT AND LONG-TERM OUTCOMES FOLLOWING PANCREATECTOMY IN PATIENTS WITH CIRRHOSIS: A MARKETSCAN ANALYSIS
T. Clark Gamblin MD, MS, MBA, FACS | University of Utah

MO 79. BOWEL FUNCTION DOES NOT CHANGE FOLLOWING LAPAROSCOPIC FUNDOPLICATION
Miracle Burt BA | Endeavor Health

MO 80. ENDOSCOPIC SALVAGE OF NEAR-COMPLETE GASTROJEJUNOSTOMY DISRUPTION AFTER FAILED GRAHAM PATCH REPAIR OF PERFORATED MARGINAL ULCER
Kai He MD | University of California, Irvine Medical Center

MO 81. COMMUNICATION EFFICIENCY IN SURGICAL RESEARCH LABORATORIES: ROLE, TIME INVESTMENT, AND MISCOMMUNICATION EXPERIENCE AS KEY DETERMINANTS
Sihan Hao BS | University of Pittsburgh

MINI ORAL SESSION 8

MO 82. ENOXAPARIN 40 MG VERSUS 60 MG FOR VENOUS THROMBOEMBOLISM PROPHYLAXIS AFTER BARIATRIC SURGERY: A SYSTEMATIC REVIEW AND META-ANALYSIS OF PHARMACOLOGIC AND CLINICAL OUTCOMES
Youssef Farhat MD | Cairo University

MO 83. PREDICTORS OF PERIOPERATIVE BLOOD TRANSFUSION IN TRAUMATIC HIP FRACTURE PATIENTS: A RETROSPECTIVE ANALYSIS
Dayan Zorkot MPH | Wayne State University School of Medicine, Detroit Medical Center

MO 84. COMPARATIVE DISCRIMINATION OF PRE-OPERATIVE NELA AND PHYSIOLOGICAL POSSUM SCORES FOR 30-DAY MORTALITY AFTER EMERGENCY LAPAROTOMY: A SYSTEMATIC REVIEW AND META-ANALYSIS
Samreen Rizwan Ahmed Shaikh MD | OSF Saint Francis Medical Center, Peoria

MO 85. COMPARATIVE OUTCOMES OF PRE-INJURY DIRECT ORAL ANTICOAGULANT VERSUS VITAMIN K ANTAGONIST USE IN ADULT TRAUMA PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS
Saimuralidhar Srinivasan MBBS | OSF Saint Francis Medical Center, Peoria

MO 86. IMPACT OF 30-DAY READMISSION ON LONG-TERM WEIGHT LOSS OUTCOMES FOLLOWING BARIATRIC SURGERY
Kristen Castelino n/a | Endeavor Health

MO 87. LONG-TERM CATHETER SURVIVAL AFTER LAPAROSCOPIC SALVAGE FOR PERITONEAL DIALYSIS DYSFUNCTION: A SINGLE-INSTITUTION EXPERIENCE
Emil Maric MD | NorthShore University HealthSystem

MO 88. MINIMALLY INVASIVE MANAGEMENT OF A LARGE EPIPHRENIC ESOPHAGEAL DIVERTICULUM
Nicholas Prindeze MD | University of California, Irvine Medical Center

MO 89. LAPAROSCOPIC CONVERSION OF A TIGHT TOUPET FUNDOPLICATION TO FUNDOPEXY FOR REFRACTORY DYSPHAGIA,
INTRAOPERATIVE FINDINGS AND CLINICAL OUTCOMES
Peijun Zhao MS | McGovern Medical School at UT Health

MO 90. LAPAROSCOPIC ENUCLEATION OF ESOPHAGEAL LEIOMYOMA
Nicholas Prindeze MD | University of California, Irvine Medical Center

MO 91. PRIMARY VERSUS REVISIONAL ROUX-EN-Y GASTRIC BYPASS: 30-DAY MORBIDITY AND MORTALITY IN A NATIONAL COHORT (MBSAQIP, 2015-2023)
Anoosh Farooqui MD | OSF Saint Francis Medical Center, Peoria

MO 92. FUNGAL MYCOBIOME ALTERATIONS AND SUBSEQUENT RISK OF PANCREATIC DUCTAL ADENOCARCINOMA: A SYSTEMATIC REVIEW AND META-ANALYSIS
Saimuralidhar Srinivasan MBBS | OSF Saint Francis Medical Center, Peoria

MO 93. SINGLE-ARM OUTCOMES AFTER CONVENTIONAL AND MINIMALLY INVASIVE FASCIOTOMY FOR LOWER-EXTREMITY CHRONIC EXERTIONAL COMPARTMENT SYNDROME: A SYSTEMATIC REVIEW AND META-ANALYSIS
Shugofta Aziz MBBS | OSF Saint Francis Medical Center, Peoria

MINI ORAL SESSION 9

MO 94. CHALLENGING THE PARADIGM IN MASCULINIZING CHEST SURGERY FOR GENDER AFFIRMATION: LANDMARK REPORT OF 600 PATIENTS FROM A BREAST SURGERY PRACTICE
Victor Magana Castro MD | MSU-Corewell Health

MO 95. CONTEMPORARY PRACTICE PATTERNS OF CARE AND OUTCOMES IN RETROPERITONEAL SARCOMA IN THE UNITED STATES
Madeleine Beck BS | University of Nevada Reno School of Medicine

MO 96. TALIMOGENE LAHERPAREPVEC (T-VEC) IN MERKEL CELL CARCINOMA: A SYSTEMATIC REVIEW OF CLINICAL OUTCOMES AND THERAPEUTIC POTENTIAL
Frieda Anastopulos BS | Mayo Clinic Florida

MO 97. OUTCOMES OF A PARTIAL DIVERTICULECTOMY, HELLER MYOTOMY, AND DOR FUNDOPLICATION IN A PATIENT WITH ACHALASIA AND A LARGE EPIPHRENIC DIVERTICULUM
Mariele Patungan MS | McGovern Medical School at UT Health

MO 98. LASER SPECKLE CONTRAST IMAGING FOR PERFUSION ASSESSMENT IN BURN WOUNDS: A SYSTEMATIC REVIEW
Saimuralidhar Srinivasan MBBS | OSF Saint Francis Medical Center, Peoria

MO 99. UPPER EXTREMITY DEEP VEIN THROMBOSIS IN A LEVEL 1 TRAUMA CENTER: A DESCRIPTIVE STUDY
Jackson Lent-Koop BS | University of New Mexico Hospital
MO 100. QUADRATUS LUMBORUM VERSUS TRANSVERSUS ABDOMINIS PLANE BLOCK FOR POSTOPERATIVE ANALGESIA IN LAPAROSCOPIC COLORECTAL SURGERY: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS
Youssef Farhat MD | LSU Health Sciences Center New Orleans
MO 101. AN ANALYSIS OF HIDRADENITIS SUPPURATIVA MANAGEMENT: AN INSTITUTION-WIDE STUDY ON NON-OPERATIVE AND SURGICAL INTERVENTIONS ON HIDRADENITIS SUPPURATIVA PATIENTS
Grace Alchemy medical student | Medical College of Wisconsin
MO 102. ACUTE DYSPHAGIA TO LIQUIDS, A RARE MANIFESTATION OF RECURRENT TYPE IV HIATAL HERNIA, LAPAROSCOPIC REPAIR AND OUTCOMES
Tammy Tran MS | McGovern Medical School at UT Health
MO 103. THE EFFECT OF INSURANCE STATUS ON CLINICAL OUTCOMES AMONG CANCER PATIENTS UNDERGOING SURGERY AT A TERTIARY REFERRAL HOSPITAL IN TANZANIA
Shreya Nuguri Medical Degree | University of New Mexico
MO 104. COMPARATIVE DIAGNOSTIC PERFORMANCE OF ALVARADO, AIR, AND RIPASA SCORES FOR ACUTE APPENDICITIS: A POOLED ANALYSIS
Samreen Rizwan Ahmed Shaikh MD | OSF Saint Francis Medical Center, Peoria

MINI ORAL SESSION 10

MO 105. ADVANCING PERFUSION ASSESSMENT IN BREAST FLAP RECONSTRUCTION USING LASER SPECKLE CONTRAST IMAGING: A SYSTEMATIC REVIEW
Melissa Gibson BA | OSF Saint Francis Medical Center, Peoria
MO 107. EFFECT OF DEEP AND MODERATE NEUROMUSCULAR BLOCKADE IN LOW-PRESSURE LAPAROSCOPIC CHOLECYSTECTOMY ON DURATION OF SURGERY: A META-ANALYSIS
Samuel Linton MD | OSF Saint Francis Medical Center, Peoria
MO 108. TRICLOSAN-COATED VERSUS UNCOATED SUTURES FOR PREVENTING SURGICAL SITE INFECTION IN COLORECTAL SURGERY: A SYSTEMATIC REVIEW AND META-ANALYSIS
Youssef Farhat MD | LSU Health Sciences Center New Orleans
MO 109. PARTIAL OPEN SPLENECTOMY IN SPLENIC NECROSIS AFTER TRAUMA: A CASE REPORT
Rachel Schneider MD, MPH | Cleveland Clinic Foundation
MO 110. CASE REPORT AND LITERATURE REVIW: GIANT UMBILICAL HERNIA IN AN INFANT TREATED WITH TWO-LATERAL FLAPS TECHNIQUE
Youssef Farhat MD | Aswan University
MO 111. COMPLICATED TYPE IV PARAESOPHAGEAL HERNIA IN A 5-YEAR-OLD BOY PRESENTING WITH SHOCK- A CASE REPORT.
Youssef Farhat MD | LSU Health Sciences Center New Orleans
MO 112. NONTRAUMATIC PERISTOMAL EVISCERATION IN A PATIENT WITH PYODERMA GANGRENOSUM AND CROHNS DISEASE
Alexandra George DO, MSPH | Saint Joseph Hospital
MO 113. LAPAROSCOPIC REPAIR OF PERFORATED PEPTIC ULCER: A SYSTEMATIC REVIEW AND META-ANALYSIS COMPARING INTERRUPTED SUTURES VERSUS KNOTLESS BARBED SUTURES
Youssef Farhat MD | LSU Health Sciences Center New Orleans
MO 114. THIRD DEGREE THERMAL BURNS FOLLOWING COSMETIC TOURISM FOR A MOMMY MAKEOVER: A CASE REPORT
Annie Fritsch MD | Rush University Medical Center
MO 115. EFFICACY AND SAFETY OF PERIOPERATIVE ESKETAMINE IN LAPAROSCOPIC CHOLECYSTECTOMY: SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS
Youssef Farhat MD | LSU Health Sciences Center New Orleans
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Annie Fritsch MD | Rush University Medical Center

Oral Abstracts

1. OUTCOMES OF TAKE-DOWN OF FUNDOPLICATION AND CONVERSION TO FUNDOPLICATION VS. CONVERSION TO FUNDOPEXY IN THE MANAGEMENT OF REOPERATIVE LAPAROSCOPIC HIATAL HERNIA REPAIR

P Zhao, A Zhu, C Fritz, K Fields K, N Aligave, F Banki
Presenter: Peijun Zhao MS | McGovern Medical School at UT Health

Background: To compare objective and subjective outcomes of reoperative laparoscopic hiatal hernia repair with take-down of fundoplication and conversion to fundoplication (Fundo-to-Fundo) vs. take-down to fundoplication and conversion to fundopexy (Fundo-to-Pexy).

Methods: Outcomes were assessed by hospital complications, length of stay, postoperative dilations, readmissions, and symptomatic recurrent hiatal hernia requiring reoperation. A yearly follow-up protocol, with GERD-QOL questionnaire, esophagram, and EGD with biopsy and endoflip was devised.

Results: From 04/28/2011 to 08/11/2025, 1210 hiatal hernia repairs were performed at our center. Comparing Fundo-to-Fundo vs. Fundo-to-Pexy showed comparable demographics and hiatal hernia types. Operative time: 170.5 min (144.0-207.2) vs. 155.0 min (134.5-192.0), p=0.042. Leak: 2/88 (2.3%) vs. 0/87 (0.0%), p=0.497. Same-day surgery: 2/88 (2.3%) vs. 41/87 (47.1%), p< 0.001. Readmissions: 13/88 (14.8%) vs. 12/87 (13.8%), p=1.000. Postoperative dilation: 10/88 (11.4%) vs. 16/87 (18.4%), p=0.274. No evidence of esophagitis at the time of the first dilation: 10/10 (100.0%) vs. 16/16 (100%), p=1.000. Endoflip at the time of first dilation in Fundo-to-Pexy: 5/87 (5.7%) with EGJOO in 3/5 (60.0%). Follow-up esophagram: 5/88 (5.7%) vs. 20/87 (23.0%), p=0.002, at 108.6 months (93.2-132.2) vs. 23.9 months (16.1-36.4), p< 0.001, recurrent hiatal hernia: 3/5 (60.0%) vs. 2/20 (10.0%), p=0.038.zFollow-up endoscopy: 2/88 (2.3%) vs. 17/87 (19.5%), p< 0.001, at 124.4 months (109.7-139.2) vs. 22.2 months (12.9-35.8); p=0.012, no endoscopic evidence of esophagitis: 0/2 (0.0%) vs. 15/17 (88.2%), p=0.035, biopsies at 1 cm above GEJ: 2/2 (100.0%) vs. 15/17 (88.2%); p=1.000, evidence of esophagitis: 1/2 (50.0%) vs. 2/15 (13.3%), p=0.331. Biopsies at 5 cm above GEJ: 1/2 (50.0%) vs. 10/17 (58.8%); p=1.000, evidence of esophagitis: 0/1 (0.0%) vs. 2/10 (20.0%), p=1.000. Follow-up endoflip in Fundo-to-Pexy: 10/87 (11.5%) with NCR in 7/10 (70.0%). GERD-QOL questionnaire: 4/88 (4.5%) vs. 34/87 (39.1%), p< 0.001 at 118.6 months (105.5-131.5) vs. 24.8 months (12.2-37.2); p=0.001, score: 4.0 (3.8-6.5) vs. 13.0 (6.0-19.8), p=0.153. Patients free of preoperative symptoms: 3/4 (75.0%) vs. 18/34 (52.9%), p=0.613, off PPI: 2/4 (50.0%) vs. 23/34 (67.6%), p=0.595, satisfied with the operation: 4/4 (100.0%) vs. 24/34 (70.6%), p=0.556. Symptomatic recurrence requiring reoperation: 14/88 (15.9%) vs. 0/87, p < 0.001 at 115.0 months (83.2-135.4) vs. 39.7 months (27.1-52.9), p < 0.001, the time to reoperation: 24.1 months (16.8-45.5).

Conclusion: Our preliminary data show comparable subjective and objective outcomes for the take-down of fundoplication and conversion to fundoplication vs. conversion to fundopexy. Significantly lower symptomatic recurrence requiring reoperation is achieved with conversion to fundopexy.

2. THERAPEUTIC ANTICOAGULATION AND 30-DAY OUTCOMES AFTER BARIATRIC SURGERY: A MBSAQIP ANALYSIS, 2015-2023

A Farooqui, SS Srinivasan, S Shaikh, A Kaur, B Ali, F Bokhari, V Mani
Presenter: Anoosh Farooqui MD | OSF Saint Francis Medical Center, Peoria

Background: Perioperative management of patients receiving therapeutic anticoagulation undergoing metabolic and bariatric surgery (MBS) remains challenging. While anticoagulation may reduce thromboembolic risk, it may increase perioperative bleeding and related complications. We aimed to evaluate the impact of preoperative therapeutic anticoagulation on 30-day postoperative outcomes following bariatric surgery

Methods: We conducted a retrospective cohort study using the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) database (2015–2023). Adult patients undergoing sleeve gastrectomy or Roux-en-Y gastric bypass were included.

Multivariable logistic regression was used to evaluate independent associations between anticoagulation and outcomes, adjusting for demographics, comorbidities, operative factors, and prior VTE. A 1:3 propensity-matched analysis and subgroup analysis among patients with prior VTE were performed.

Results: A total of 1,397,145 patients were included, of whom 39,429 (2.8%) received therapeutic anticoagulation. Anticoagulated patients were older (54.18 vs 44.02 years), had higher ASA class, and a markedly higher prevalence of prior VTE (35.9% vs 1.5%) (all P<.001) .

On unadjusted analysis, anticoagulation was associated with higher rates of bleeding (1.9% vs 0.7%), reoperation (2.3% vs 1.2%), VTE (0.7% vs 0.3%), readmission (8.0% vs 3.5%), and mortality (0.4% vs 0.1%) (all P<.001).

On multivariable analysis, therapeutic anticoagulation was independently associated with increased odds of:

Bleeding (OR 2.21, 95% CI 2.01–2.43; P<.001)

Reoperation (OR 1.45, 95% CI 1.33–1.58; P<.001)

Readmission (OR 1.74, 95% CI 1.65–1.83; P<.001)

Mortality (OR 2.09, 95% CI 1.68–2.59; P<.001)

There was no significant association with postoperative VTE (OR 1.04, 95% CI 0.88–1.22; P=0.65).

In a subgroup of patients with prior VTE, anticoagulation remained associated with increased bleeding (OR 2.46) and reoperation (OR 1.37), without reduction in postoperative VTE (OR 0.97; P=0.80).

Findings were consistent in propensity-matched analysis.

Conclusion: Therapeutic anticoagulation identifies a high-risk bariatric population with significantly increased perioperative morbidity, particularly bleeding, reoperation, and readmission, without a corresponding reduction in postoperative VTE. These findings highlight the need for optimized perioperative anticoagulation strategies in bariatric surgery.

1.3. Table 2. 30-Day Postoperative Outcomes

Outcome	No therapeutic anticoagulation	Therapeutic anticoagulation	p	test
n	1357716	39429		
Operative_Time (mean (SD))	88.64 (51.93)	99.31 (57.64)	<0.001	
Length_of_Stay (mean (SD))	1.51 (1.34)	1.99 (2.49)	<0.001	
Bleeding_Transfusion = 1 (%)	8965 (0.7)	755 (1.9)	<0.001	
Any_Bleeding = 1 (%)	8965 (0.7)	755 (1.9)	<0.001	
Reoperation_30d = 1 (%)	16229 (1.2)	922 (2.3)	<0.001	
DVT_Postop = 1 (%)	2566 (0.2)	184 (0.5)	<0.001	
PE_Postop = 1 (%)	1560 (0.1)	103 (0.3)	<0.001	
VTE = 1 (%)	3863 (0.3)	268 (0.7)	<0.001	
Readmission_30d = 1 (%)	47285 (3.5)	3157 (8.0)	<0.001	
Mortality_30d = 1 (%)	962 (0.1)	170 (0.4)	<0.001	

3. PREOPERATIVE RESPONSIVENESS TO WEIGHT LOSS ON GLP-1RA PREDICTS EFFICACY OF BARIATRIC SURGERY

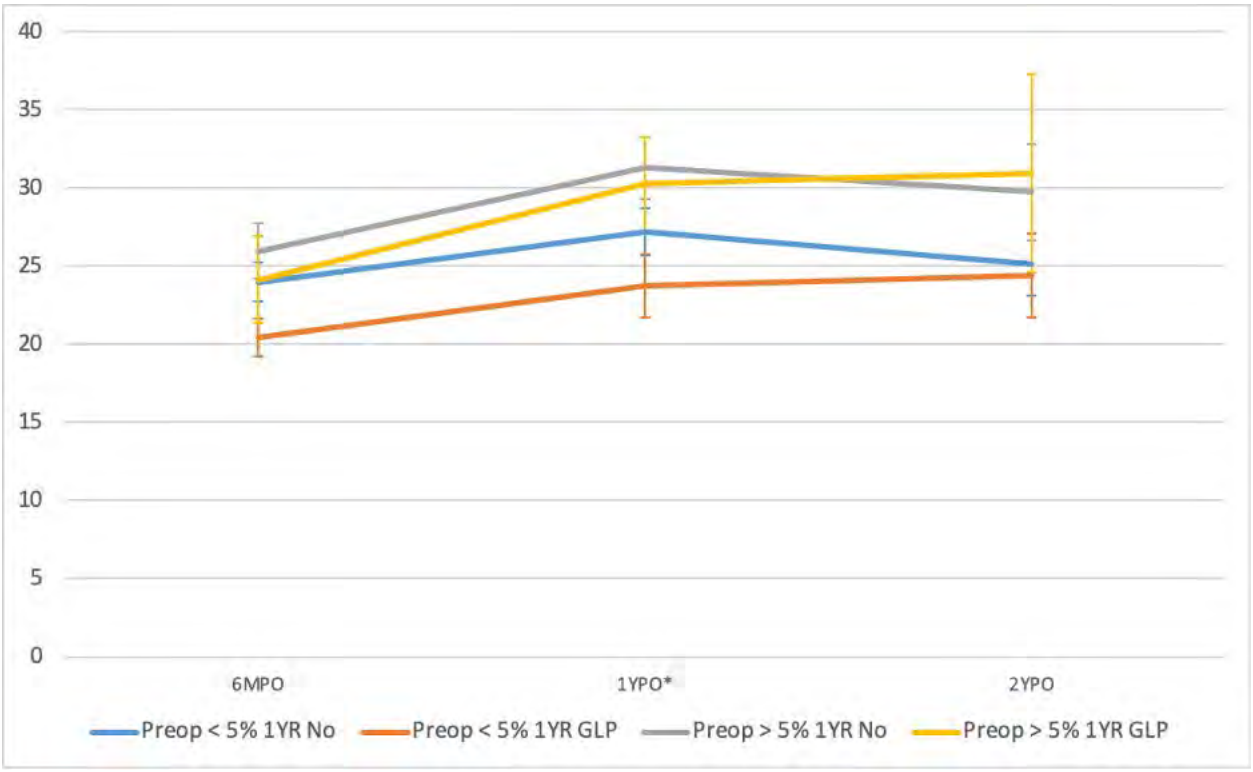
E Maric, C Wang, K Kuchta, S Zukancic, M Ujiki, N Liu
Presenter: Emil Maric MD | NorthShore University HealthSystem

Background: Use of glucagon-like peptide-1 receptor agonists (GLP1-RA) as an adjunct for weight loss has increased dramatically over the last few years. The mechanisms of action of GLP1-RA and bariatric surgery overlap substantially. However, the response to GLP1-RA and whether that impacts weight loss after bariatric surgery has not been well characterized. The objective of this study was to determine if there was an association between preoperative weight loss while on GLP1-RA and weight loss after primary bariatric surgery.

Methods: All patients who underwent primary sleeve gastrectomy (SG) or Roux-en-Y gastric bypass (RYGB) between 1/1/2015 – 1/1/2025 and were on a GLP1-RA preoperatively were identified from our institutional prospectively maintained bariatric surgery database. Weight loss after a minimum of 9 consecutive weeks of preoperative use was recorded. We excluded patients who underwent revisions or conversions. Patients were stratified by whether they had a "good response" to GLP1-RA, defined as >5% total body weight loss (%TBWL), or a "poor response", defined as less than 5% TBWL. Additionally, data regarding GLP1-RA use within 1 year postoperatively were collected. Primary outcome was %TBWL up to 3 years postoperatively, stratified by preoperative GLP1-RA response. Secondary outcomes included 30-day reinterventions, readmissions, emergency department (ED) visits, and weight loss up to 5 years postoperatively. Statistical significance was set at $p< 0.05$.

Results: We identified 115 patients who met inclusion criteria. Of these, 77 (67.0%) experienced a poor preoperative response to GLP1-RA, and 38 (33.0%) had a good response. Good responders experienced 8.2±3.8% TBWL, while poor responders experienced 0.7±3.2% TBWL ($p< 0.0001$). Good responders had significantly lower rates of preoperative diabetes (44.7% vs 67.5%, p=0.019) and hyperlipidemia (26.3% vs 46.8%, p=0.035) compared to poor responders. There were no differences in 30-day readmissions, ED visits, postoperative complications, or death between good and poor responders. Patients with a good preoperative response to GLP1-RA experienced significantly more %TBWL (31.1±10.3% vs 25.9±10.5%, p=0.011) at 1 year postoperatively. On subgroup analysis, good preoperative responders not continuing GLP postoperatively had significantly greater %TBWL (31.3±9.3%) compared to good responders continuing GLP1-RA postoperatively (30.3±11.3%), and to poor responders both continuing (23.7±10.8%) and not continuing (27.2±10.3%) GLP1-RA at 1 year after surgery (p=0.0395) (Figure 1). On multivariable analysis adjusting for age, sex, BMI, preoperative comorbidities and procedure type, good preoperative GLP1-RA response was associated with significantly greater %TBWL (4.644 ± 2.200, p=0.037) when compared to poor response.

Conclusion: Patients with a good response to GLP1-RA preoperatively experienced significantly more weight loss after bariatric surgery. Of note, good responders who were not on a GLP postoperatively lost more weight than those who continued a GLP1-RA after surgery. Our study found that a good preoperative response to GLP1-RA was independently associated with greater weight loss after bariatric surgery. Preoperative GLP1-RA response may serve as a practical tool to predict bariatric surgical outcomes and individualize treatment strategies, including procedure selection and postoperative medical management. Further prospective study is warranted to validate these findings.


40
35
30
25
20
15
10
5
0
6MPO
1YPO*
2YPO
Preop < 5% 1YR No
Preop < 5% 1YR GLP
Preop > 5% 1YR No
Preop > 5% 1YR GLP

4. CLINICAL UNDERSTAGING IN GASTRIC SIGNET RING CELL CARCINOMA: FREQUENCY, SURVIVAL CONSEQUENCES, AND IMPLICATIONS FOR EMPIRIC NEOADJUVANT THERAPY

J Chauhan, R Cardoso, A Sharma, E Asare, C Scaife, M Baker, E Ward, T Gamblin
Presenter: Jaimin Chauhan BMedSci, BMBS | University of Utah

Background: Gastric signet ring cell carcinoma (SRCC) is characterized by diffuse submucosal infiltration and discohesive growth, features that may reduce the accuracy of conventional preoperative staging. However, treatment algorithms for gastric adenocarcinoma remain largely driven by clinical stage and resectability rather than histologic subtype. Patients with clinically early-stage SRCC may therefore be at risk of occult advanced disease and missed opportunities for treatment escalation. We used the National Cancer Database (NCDB) to evaluate whether SRCC is associated with greater clinical-to-pathologic understaging than non-SRCC gastric adenocarcinoma, whether understaging carries a disproportionate survival penalty in SRCC, and whether preoperative therapy is associated with improved outcomes in clinically early-stage SRCC.

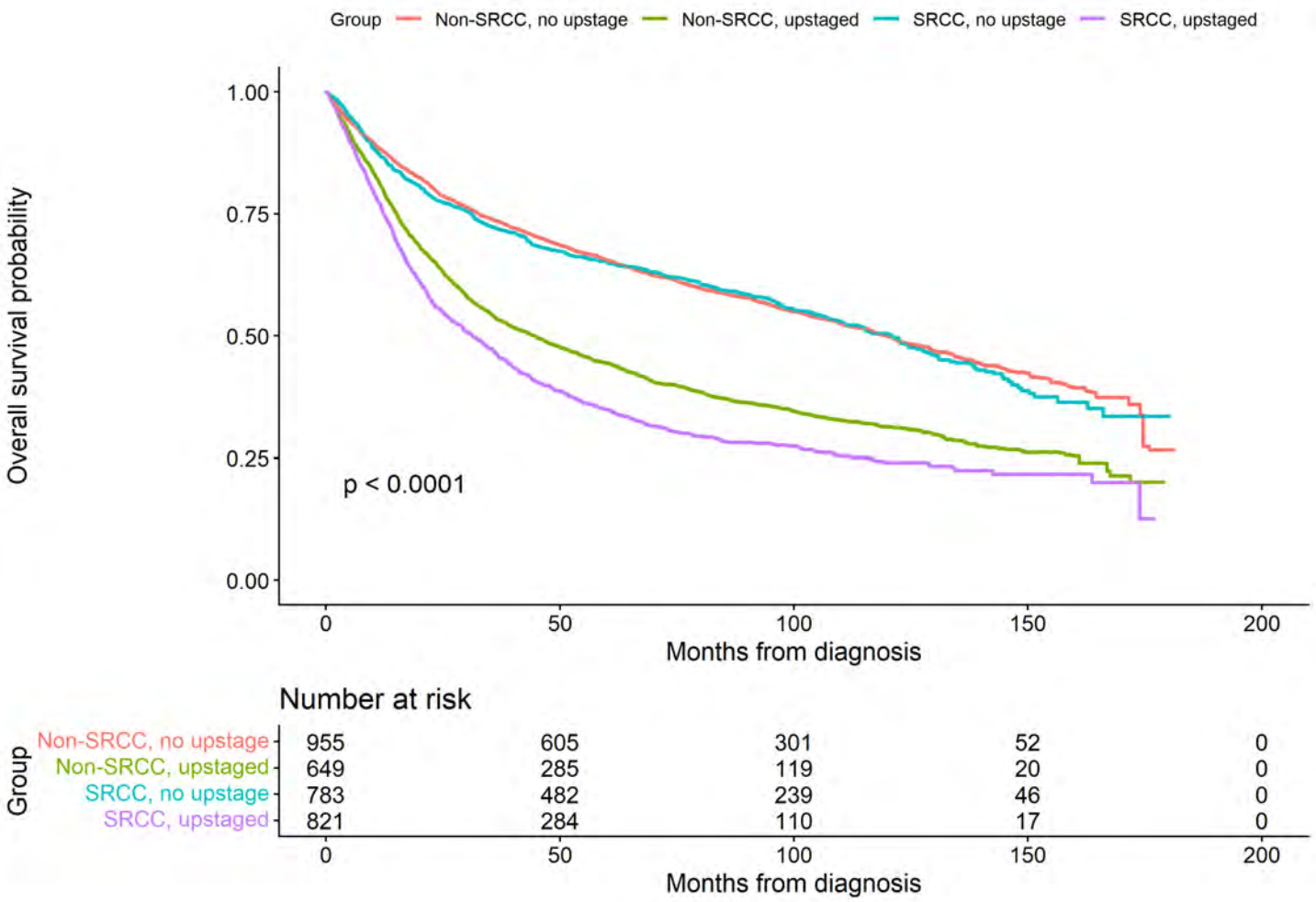
Methods: Adult patients with clinically nonmetastatic gastric adenocarcinoma undergoing definitive gastrectomy from 2010–2019 were identified. SRCC was defined by ICD-O-3 code 8490; other eligible adenocarcinoma histologies were classified as non-SRCC. Clinical understaging was defined as pathologic T, N, or M stage exceeding the corresponding clinical stage. Patients receiving preoperative therapy were excluded from staging-discordance and survival-impact analyses to avoid neoadjuvant downstaging. Propensity score overlap weighting balanced measured covariates. Weighted logistic regression evaluated associations between SRCC and understaging, while weighted Cox and Kaplan–Meier analyses assessed survival by histology and understaging status. In clinically early-stage SRCC, a separate 90-day landmark analysis compared preoperative therapy with surgery-first treatment.

Results: The primary surgery cohort included 11,904 patients. SRCC was associated with higher odds of any clinical-to-pathologic upstaging compared with non-SRCC adenocarcinoma (OR 1.55, 95% CI 1.34–1.78), including T-stage upstaging (OR 1.61, 95% CI 1.38–1.88) and N-stage upstaging (OR 1.59, 95% CI 1.38–1.84). SRCC was also associated with greater upstaging magnitude, particularly severe T-stage upstaging (OR 1.86, 95% CI 1.51–2.29) and severe nodal upstaging (OR 1.93, 95% CI 1.62–2.29 for ≥2-category N upstaging).

Among 11,901 patients with survival data, the clinical consequence of upstaged SRCC patients resulted in the poorest survival compared with non-upstaged non-SRCC patients (HR 2.21, 95% CI 2.02–2.41), followed by upstaged non-SRCC patients (HR 1.77, 95% CI 1.65–1.89). SRCC without upstaging was not associated with worse survival (HR 1.02, 95% CI 0.93–1.13). A significant SRCC-by-upstaging interaction was observed (HR 1.22, 95% CI 1.07–1.40), indicating a greater survival penalty of upstaging among SRCC patients.

In the clinically early-stage SRCC cohort (cT1–2N0M0), 1,946 patients met criteria after 90-day landmarking, of whom 520 received preoperative therapy. After overlap weighting, preoperative therapy was not associated with improved survival compared with surgery-first treatment (HR 1.46, 95% CI 1.25–1.72). Weighted median overall survival was 62.0 months with preoperative therapy versus 125.4 months with surgery-first.

Conclusion: SRCC was associated with increased clinical-to-pathologic upstaging, supporting the concept that infiltrative growth and occult nodal spread may limit conventional staging. Upstaging was strongly associated with worse survival, with a greater apparent penalty among SRCC patients. In clinically early-stage SRCC, empiric preoperative therapy did not demonstrate a survival advantage, potentially reflecting residual confounding by indication from unmeasured high-risk features. These findings support improved staging strategies and more selective treatment escalation in localized SRCC.


Group
Non-SRCC, no upstage
Non-SRCC, upstaged
SRCC, no upstage
SRCC, upstaged
Overall survival probability
1.00
0.75
0.50
0.25
0.00
p < 0.0001
0
50
100
150
200
Months from diagnosis
Number at risk
Group
Non-SRCC, no upstage 955 605 301 52 0
Non-SRCC, upstaged 649 285 119 20 0
SRCC, no upstage 783 482 239 46 0
SRCC, upstaged 821 284 110 17 0
0
50
100
150
200
Months from diagnosis

5. REVISITING THE OPTIMAL SEQUENCE OF TOTAL NEOADJUVANT THERAPY IN LOCALLY ADVANCED RECTAL CANCER

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Presenter: Swathi Raikot MBBS | Morehouse School of Medicine

Background: Total neoadjuvant therapy (TNT) is the current recommended treatment for locally advanced rectal cancer. The treatment sequence of induction versus consolidation for optimal outcomes continues to be debated. The aim of this study is to evaluate the postoperative outcomes between patients who underwent induction versus consolidation treatment strategies.

Methods: We performed a retrospective study using the NCDB database of patients diagnosed with rectal cancer from 2010-2020 who underwent TNT followed by definitive surgery. We included patients ≥18years age diagnosed with clinical stage II/III rectal cancer. Those who underwent radiotherapy and chemotherapy within +/-10 days were defined as consolidation TNT (C-TNT), and those who underwent radiotherapy after a minimum of 12 weeks of chemotherapy were defined as induction TNT (I-TNT). Outcomes were compared using Kruskal-Wallis, Chi-square tests, Kaplan Meier analysis, and multivariate Cox regression among those who underwent I-TNT vs C-TNT.

Results: A total of 18,576 patients were evaluated with 62.6% being male and 85.2% were White. 17,533 (94.4%) underwent C-TNT and 1043 (5.6%) underwent I-TNT with an increase in the number of patients receiving I-TNT from 2.1% (n=22) in 2010 to 38.3%(n=399) 2017. On univariate analysis, compared to C-TNT group, patients treated with I-TNT were younger (median (IQR) age - 55 (48, 63) vs 62 (53, 71) years (< 0.001)), more likely had clinical stage III (81.4% vs 55.4%, p< 0.001), more privately insured (66% vs 43.3%, p< 0.001), treated at academic/research programs (56.3% vs 35.7%, p< 0.001), and had fewer comorbidities (Charlson Deyo score 0: 83.8% vs 76.2%, p< 0.001). Median postoperative LOS at the time of definitive surgery was lower in I-TNT than in C-TNT group (5(4,7) vs 6(4,8)days, p=0.002). Postop 30 days readmission was significantly lower in the I-TNT group (5.5% vs 7.5%, p=0.038). Patients undergoing I-TNT experienced higher rates of pathological T downstaging (60.8% vs 55.6%, p=0.002), N downstaging (65.4% vs 39.9%, p< 0.001), and combined T/N downstaging (43.8% vs 24.5%, p< 0.001). There was no difference in pCR (complete pathological response i.e. pT0N0) between the two groups (19% vs 17.5%, p=0.257). Thirty-day (0.3 % vs 1.2%, p=0.030) and 90-day (0.8 % vs 2.4%, p=0.002) postoperative mortality were also lower in the I-TNT group. Kaplan-Meier analysis demonstrated improved overall survival in the I-TNT group compared to C-TNT (82% vs 66.1%, log-rank p< 0.001). After adjustment for demographic, clinical, and treatment-related factors on multivariate Cox regression, I-TNT remained independently associated with improved survival (HR 0.71, 95% CI 0.60–0.84, p< 0.001). Median follow-up was shorter in the I-TNT group (54.4 vs 61.7 months, p< 0.001), probably reflecting recent adoption.

Conclusion: Total neoadjuvant chemotherapy with induction chemotherapy was associated with improved postoperative outcomes and overall survival outcomes compared to those with consolidation chemotherapy.

Variables	Consolidation TNT (n=17533)	Induction TNT (n=1043)	Total (n=18576)	p-value
Age	62 (53, 71)	55 (48, 63)	62 (53, 70)	< 0.001 (1)
Gender (male)	10973 (62.6%)	651 (62.4%)	11624 (62.6%)	0.913 (2)
Facility Type				< 0.001 (2)
Community Cancer program	1067 (6.3%)	25 (2.6%)	1092 (6.1%)	
Comprehensive community Cancer program	6097 (36%)	142 (15%)	6239 (34.9%)	
Academic/Research Program	6046 (35.7%)	532 (56.3%)	6578 (36.8%)	
Integrated Network Cancer Program	3727 (22%)	246 (26%)	3973 (22.2%)	
Primary Payor				< 0.001 (2)
Private/managed care	7589 (43.3%)	688 (66.0%)	8277 (44.6%)	
Medicaid	1509 (8.6%)	96 (9.2%)	1605 (8.6%)	
Medicare	7130 (40.7%)	205 (19.7%)	7335 (39.5%)	
Other govt	296 (1.7%)	11 (1.1%)	307 (1.7%)	
Uninsured	757 (4.3%)	30 (2.9%)	787 (4.2%)	
Unknown	252 (1.4%)	13 (1.2%)	265 (1.4%)	
Stage Classification				< 0.001 (2)
Stage 2	7823 (44.6%)	194 (18.6%)	8017 (43.2%)	
Stage 3	9710 (55.4%)	849 (81.4%)	10559 (56.8%)	
Complete pathological response pCR (pT0N0)	2695 (17.5%)	181 (19.0%)	2876 (17.6%)	0.257 (2)
Pathological T downstaging	8701 (55.6%)	582 (60.8%)	9283 (55.9%)	0.002 (2)
Pathological N downstaging	6273 (39.9%)	636 (65.4%)	6909 (41.4%)	< 0.001 (2)
Combined pathological T/N downstaging	3730 (24.5%)	415 (43.8%)	4145 (25.7%)	< 0.001 (2)
LOS during definitive surgery	6.0 (4.0, 8.0)	5.0 (4.0, 7.0)	6.0 (4.0, 8.0)	0.002 (1)
Readmission within 30days	1308 (7.5%)	57 (5.5%)	1365 (7.3%)	0.038 (2)
30-day postop mortality	206 (1.2%)	3 (0.3%)	209 (1.1%)	0.030 (2)
90-day postop mortality	420 (2.4%)	8 (0.8%)	428 (2.3%)	0.002 (2)

(1) Kruskal-Wallis rank sum test
(2) Pearson's Chi-squared test:

6. DIFFERENTIAL EFFECTS OF BODY MASS INDEX AND SOCIAL VULNERABILITY INDEX ON STAGE AND SURVIVAL IN EARLY-ONSET COLORECTAL CANCER: INSIGHTS FROM A 25-YEAR MULTICENTER ANALYSIS

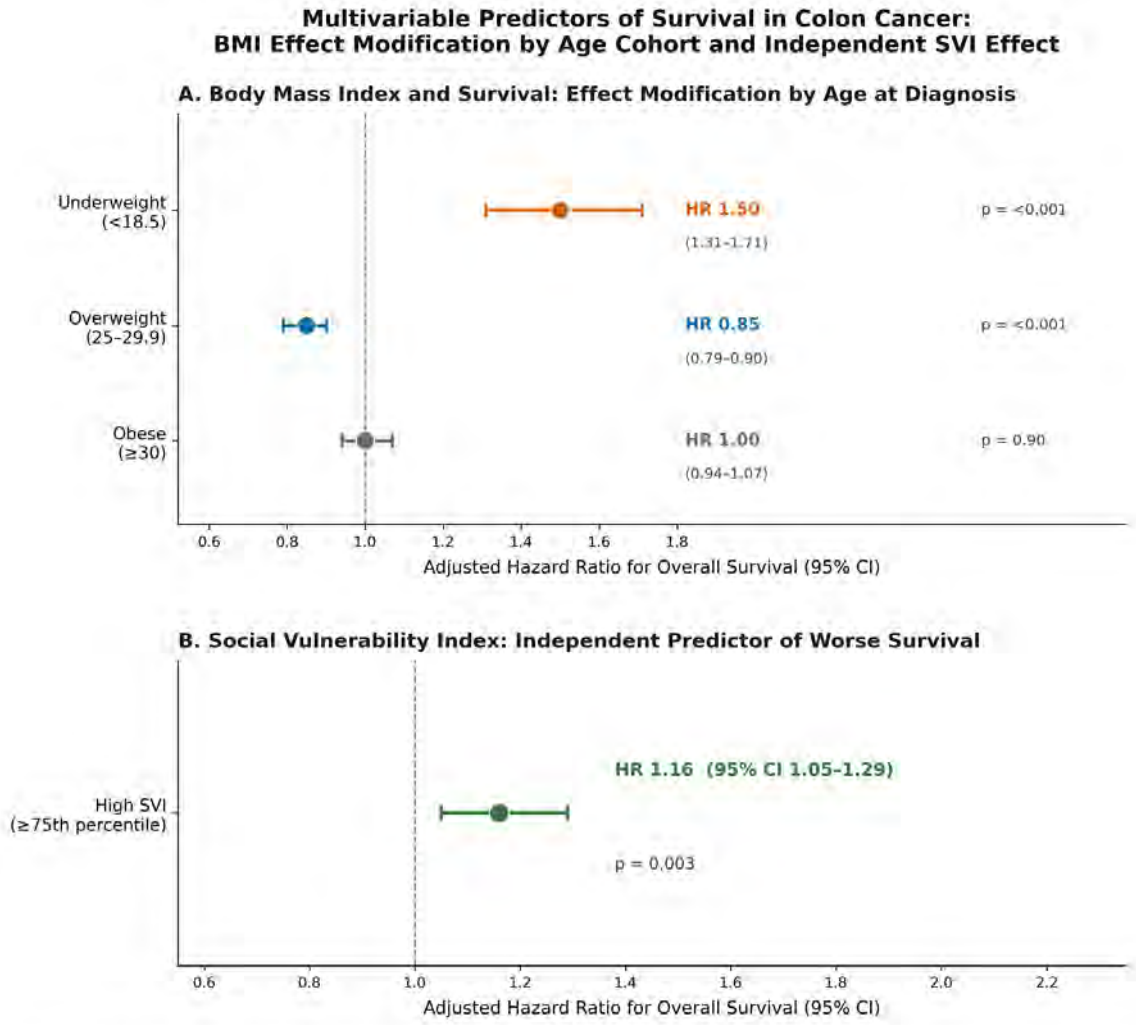
CA Hounschell, S Bolourani, DA Hanes, B Diskin, AJ Bilchik
Presenter: Corey Hounschell DO | John Wayne Cancer Institute at Providence Saint John

Background: The incidence of early-onset colorectal cancer (EOCRC, age < 50 years) has risen steadily over the past two decades. Large-scale analyses examining whether modifiable host factors or structural social determinants effect disease severity and survival in EOCRC versus late-onset colorectal cancer (LOCRC) remain limited. The objective of this study is to characterize the associations of host factors and social determinants with stage at diagnosis and overall survival in EOCRC versus LOCRC in a large multicenter colon cancer cohort.

Methods: We analyzed a 25-year (2000–2025) multicenter cohort of 28,720 patients with colon cancer from a large integrated health system. EOCRC was defined as age < 50 at diagnosis (n=2,994; 10.4%). BMI was evaluated continuously and categorically (underweight < 18.5, normal 18.5–24.9, overweight 25–29.9, obese ≥30 kg/m²). SVI was analyzed continuously, by quartile, and at the 75th percentile threshold. Multivariable ordinal logistic regression modeled stage category and Cox proportional hazards models stratified by stage (and age where appropriate) assessed OS. All models adjusted for sex, race/ethnicity, tumor subsite, insurance type, year of diagnosis, and urban/rural status. Formal tests of BMI category and age cohort as well as SVI and age cohort interactions were conducted, with additional censoring at 10 years.

Results: EOCRC patients presented with significantly higher-stage disease (Stage IV: 31.2% vs. 20.7% in LOCRC; p< 0.001). EOCRC was associated with 1.65 times the odds of higher stage category (95% CI 1.54–1.76). Underweight patients comprised 4.06% of Stage IV cases versus 2.68% overall. In adjusted Cox models, underweight BMI independently predicted worse OS (HR 1.50, 95% CI 1.31–1.71; p< 0.001), while overweight BMI was protective (HR 0.85, 95% CI 0.79–0.90; p< 0.001). A significant BMI category and age cohort interaction was present for OS (p=0.04 with 10-year censoring): the mortality hazard associated with underweight status was more pronounced in EOCRC (approximate HR 2.1 vs. 1.4 in LOCRC), whereas the protective effect of overweight status was more robust in LOCRC. SVI ≥75th percentile was independently associated with both advanced stage and inferior OS (HR 1.16, 95% CI 1.05–1.29; p=0.003) after adjustment for covariates. Racial and ethnic disparities in stage and survival were substantially attenuated after inclusion of SVI. All primary findings were consistent in complete-case sensitivity analyses.

Conclusion: In this large 25-year multicenter analysis, EOCRC and LOCRC demonstrate distinct relationships with BMI and social vulnerability. Underweight status is associated with both higher stage and markedly worse survival, with the survival penalty amplified in younger patients. Overweight status confers a survival advantage that is more clear in LOCRC. High SVI independently drives more advanced presentation and poorer outcomes and largely explains observed racial/ethnic differences. These findings challenge prevailing obesity-centric narratives of EOCRC risk and support the integration of systematic nutritional assessment and social vulnerability screening into preoperative evaluation, treatment planning, and survivorship care, particularly for patients under 50. Surgeons should recognize underweight young patients and those from high-SVI communities as high-risk populations who may benefit from targeted prehabilitation, nutritional optimization, and care coordination that addresses structural barriers to care.



Multivariable Cox models (n=28,720). Reference groups: Normal BMI (18.5–24.9) and lower SVI. All models stratified by stage and adjusted for key covariates. Findings robust in complete-case sensitivity analyses.

7. THE CLOCK AND THE CLOT: DOES DELAYING CHOLECYSTECTOMY CHANGE OUTCOMES IN ANTICOAGULATED PATIENTS?

P Ajith, J Flippin
Presenter: James Flippin MD | OSF Saint Francis Medical Center, Peoria

Background: Cholecystectomy is among the most common general surgical procedures in the United States, with over 600,000 cases performed annually. Anticoagulated patients represent a particularly challenging subgroup, carrying elevated risks of both hemorrhagic and thromboembolic complications. Current guidelines — including the Tokyo Guidelines 2018 (TG18) and World Society of Emergency Surgery (WSES) recommendations — provide no specific, evidence-based guidance on optimal surgical timing in this population. Little data exist to guide this decision. Hence we performed a nationwide, multicenter investigation of surgical timing on 30-day outcomes in anticoagulated cholecystectomy patients using ACS-NSQIP.

Methods: The ACS-NSQIP database (2017–2024) was queried for patients undergoing laparoscopic or open cholecystectomy (CPT 47562, 47563) with documented bleeding disorders or anticoagulation use. Cases with missing data for age, sex, BMI, or hospital-to-operation day were excluded, yielding a final cohort of 11,736 patients. Patients were stratified by surgical timing from admission: Group 1 (0–24h; reference), Group 2 (24–48h), Group 3 (48–72h), Group 4 (72–96h), Group 5 (96–120h), and Group 6 (>120h). Primary outcomes were 30-day mortality and 19 postoperative complications. The secondary outcome was postoperative length of stay (LOS). Outcome-specific confounders were identified by univariate chi-square analysis ($p < 0.05$), and multivariable logistic regression was performed adjusting for age, sex, ASA class, and identified confounders. Post-operative LOS was modeled using a Generalized Linear Model (Tweedie distribution, log link; Bonferroni-adjusted pairwise comparisons).

Results: The cohort had a median age of 67 years (IQR 55–76); 54.1% were male. ASA class III accounted for 65.8% and class IV for 11.8%. Common comorbidities included hypertension (66.6%), diabetes (28.4%), CHF (11.1%), COPD (8.1%), and dialysis dependence (2.3%). Overall 30-day mortality was 1.4%. Surgical timing distribution: Group 1 (n=4,229; 36.0%), Group 2 (n=2,406; 20.5%), Group 3 (n=2,156; 18.4%), Group 4 (n=1,325; 11.3%), Group 5 (n=674; 5.7%), Group 6 (n=946; 8.1%). Compared to 0–24h surgery, delay was associated with progressive worsening across virtually all outcomes (Table 1). Mortality rose from 68% higher odds at 24–48h (aOR 1.68) to more than double at >120h (aOR 2.14). Renal insufficiency showed the largest risk increase, reaching 8.4-fold higher at >120h (aOR 8.36). Transfusion risk rose from 69% higher at 24–48h to 3.3-fold higher at >120h — contradicting the assumption that delay reduces hemorrhagic risk. Sepsis, organ space infection, UTI, and pneumonia were significantly elevated across most delay groups. Post-operative LOS nearly doubled from 3.04 days (0–24h) to 5.96 days (24–48h), rising to 8.97 days beyond 120h.

Conclusion: In this large-scale, nationally representative analysis of surgical timing in anticoagulated cholecystectomy patients, delay was consistently and independently associated with worse 30-day outcomes across every domain studied — including mortality, renal failure, transfusion, sepsis, and LOS. Critically, the assumption that delay reduces hemorrhagic risk was directly refuted: transfusion risk increased with each additional day. These findings support timely operative intervention — ideally within 24 hours — as the optimal strategy for this high-risk population.

Table 1. Adjusted Outcomes by Surgical Timing Group (Reference: 0–24 Hours)

Outcome (Overall %)	p	24–48h aOR (95% CI)	48–72h aOR (95% CI)	72–96h aOR (95% CI)	96–120h aOR (95% CI)	>120h aOR (95% CI)
Mortality (1.4%)	0.044	1.68 (1.06–2.67)	1.29 (0.78–2.12)	1.83 (1.09–3.08)	1.81 (0.97–3.40)	**2.14 (1.28–3.57)**
Renal Insufficiency (2.0%)	<0.001	**3.17 (1.91–5.24)**	**4.83 (3.00–7.79)**	**3.48 (2.00–6.04)**	**6.61 (3.79–11.52)**	**8.36 (5.09–13.71)**
Blood Transfusion (3.2%)	<0.001	**1.69 (1.22–2.33)**	**1.79 (1.29–2.48)**	**2.03 (1.41–2.91)**	**2.64 (1.75–3.97)**	**3.31 (2.35–4.66)**
Sepsis (3.4%)	<0.001	**2.75 (2.07–3.66)**	**1.84 (1.34–2.52)**	**1.93 (1.35–2.75)**	1.60 (1.00–2.57)	**1.96 (1.33–2.88)**
Organ Space Infection (3.5%)	<0.001	**1.88 (1.42–2.48)**	**1.56 (1.16–2.10)**	**1.69 (1.21–2.37)**	0.92 (0.54–1.57)	**2.03 (1.43–2.89)**
Pneumonia (1.8%)	<0.001	**2.04 (1.39–2.99)**	1.18 (0.75–1.84)	1.22 (0.73–2.04)	1.74 (0.99–3.06)	**2.25 (1.43–3.54)**
UTI (1.2%)	<0.001	**2.57 (1.54–4.30)**	**2.32 (1.36–3.97)**	**3.42 (1.96–5.95)**	1.18 (0.45–3.09)	**3.29 (1.81–5.97)**
Post-op LOS (days)	<0.001	5.96	6.06	6.13	6.92	8.97

All models adjusted for age, sex, ASA class, and outcome-specific confounders. Post-op LOS values are estimated marginal means (days). aOR = adjusted odds ratio.

8. BAILOUT STRATEGIES IN CHOLECYSTECTOMY: SURGEON-LEVEL RATES AND THE PROCEDURAL TRADE-OFF OF POSTOPERATIVE MORBIDITY

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Presenter: Omneya kandil MD | Mayo Clinic Arizona

Background: In laparoscopic cholecystectomy, if the critical view of safety cannot be achieved, surgeons may employ bailout strategies, including subtotal cholecystectomy (SC) or conversion to open (OC). However, the decision to implement a bailout may stem from operative difficulty or individual behavioral thresholds. The objective of the study was to evaluate the relationship between surgeon-level bailout rates and risk-adjusted Bile Duct Injury (BDI), along with the impact of bailout strategies on post-operative morbidity and reinterventions.

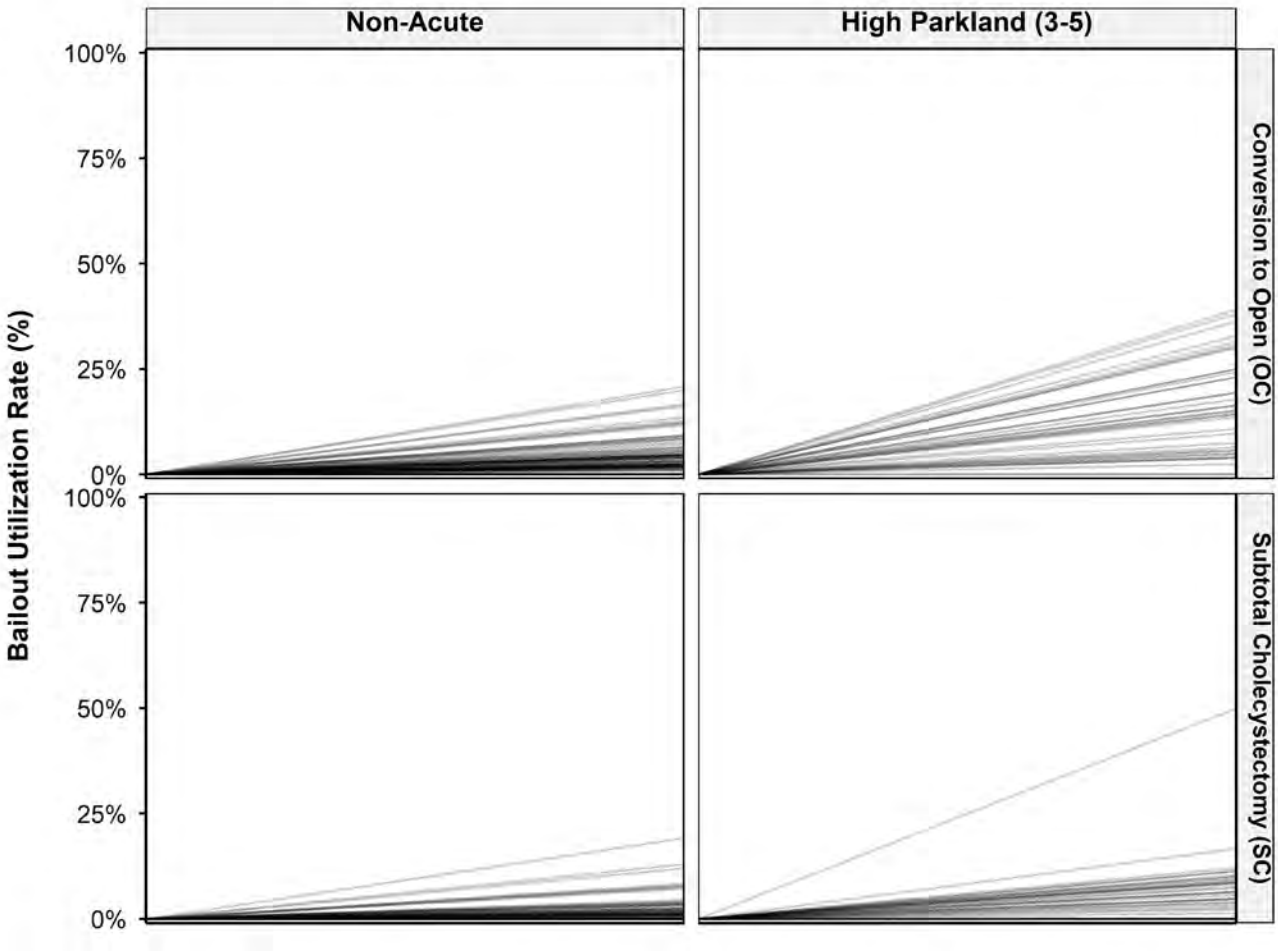
Methods: This retrospective study analyzed patients undergoing laparoscopic or robotic cholecystectomy (2014–2025). Surgeons performing less than 20 cases were excluded to minimize instability in risk-adjusted estimates. Surgeon-specific SC and OC rates were determined by calculating the individual surgeon's SC or OC volume as a percentage of their total case volume in non-acute cases and in high Parkland grades. Surgeons were dichotomized into high- versus low-utilization cohorts based on the cohort's median SC and CO rates. A 1:1 nearest-neighbor propensity score matching (PSM) was performed using the dichotomized variable as the grouping variable and age, histopathological chronic cholecystitis, and anatomical severity (Parkland scale) as covariates. Univariable logistic regression was subsequently performed on matched cohorts to evaluate the association of surgeon bailout rates and major bile duct injury, as well as postoperative interventions. Statistical significance was defined as $P < 0.05$.

Results: A total of 139 surgeons performed 23 513 cholecystectomies. We identified 24 major BDIs (1 Type B, 2 Type C, 8 Type D, and 13 Type E (E1-E5)) injuries according to Strasberg classification. Following PSM, the standardized mean difference was < 0.1.

In non-acute cholecystitis cases, individual surgeon-specific SC and OC rates ranged from 0.00% to 19.18% and 0.00% to 20.83%, respectively. In high Parkland grades, surgeon-specific SC and OC ranged from 0.00% to 50.00% and from 0.00% to 39.13%, respectively (Figure 1).

Patients operated on by surgeons with a high SC rates experienced significantly increased odds of major bile duct injury compared to those operated on by surgeons with low SC rates (OR 4.26, 95% CI 1.43 – 12.65; P = .009). Similarly, a high OC rate was independently associated with a significant increase in the odds of major bile duct injury (OR 7.01, 95% CI 2.09 – 23.51; P = .002). Surgeons' bailout rates also influenced short-term morbidity. Patients treated by surgeons with high rates of SC and OC experienced a significant increase in the odds of requiring postoperative interventions (OR 3.01, 95% CI 2.49 – 3.63; P < .001) and (OR 2.12, 95% CI 1.80 – 2.50; P < .001) respectively.

Conclusion: Bailout utilization can be influenced by individual surgeon preference rather than solely anatomic severity. Independent of operative difficulty, higher surgeon-level rates for bailout strategies were associated with significantly increased severity-adjusted BDI rates and postoperative morbidity compared to risk-adjusted cohorts not undergoing bailout. Performing bailouts carries significant clinical debt; the decision should be carefully weighed due to high morbidity.


Non-Acute
High Parkland (3-5)
Conversion to Open (OC)
Subtotal Cholecystectomy (SC)
Bailout Utilization Rate (%)
100%
75%
50%
25%
0%

9. ACUTE CARE SURGICAL OUTCOMES IN CRITICAL ACCESS HOSPITALS ARE COMPARABLE TO LARGER URBAN AND RURAL FACILITIES IN KENTUCKY

N Albaqami, S Karimi, B Little, M Egger, R Marshall
Presenter: Ryne Marshall MD | University of Louisville

Background: Safe and efficient delivery of emergency surgical care can be challenging in rural settings. Critical access hospitals (CAHs) play an important role in ensuring timely access to interventions in rural areas. The purpose of this study was to validate the findings of nationwide comparisons showing that surgical outcomes in CAHs were acceptable, and to add more geographic analysis of urban and rural access in a statewide cohort.

Methods: An all-payer inpatient claims dataset for adult rural-dwelling patients in Kentucky was used (2016-2024). Five core general surgery operations were selected (cholecystectomy, herniorrhaphy, colectomy, enterectomy, appendectomy), identifying admissions designated as non-elective. Hospitals were categorized as CAHs and non-CAHs, with non-CAHs further stratified into rural and urban (primary comparison: CAH vs. rural, non-CAH). The primary outcome was a composite of hospital mortality, hospice disposition, and/or major postoperative complication. Secondary outcomes included length of stay and discharge disposition. Multivariable regression modeling was performed using patient-level variables (age, race, sex, transfer status, Charlson Comorbidity Index [CCI], and Present on Admission [POA] conditions) and facility-level variables (annual inpatient discharge volume, ownership, and system affiliation). Models included county, year, and county-by-year fixed effects to account for unobserved geotemporal factors. Analyses were stratified by age (21-64 vs ≥65 years).

Results: A total of 28,454 qualifying surgical admissions from Kentucky rural areas were included; 13,452 (47%) were ≥65 years old. Admissions included 520 CAH, 15,457 rural non-CAH, and 12,477 urban encounters. Patients treated at CAHs were more frequently female (54.8%), White (97.9%), and associated with Medicare payment (38.9%). They presented with lower average comorbidity burdens via CCI (1.07 CAH vs. 1.70 rural non-CAH vs. 2.17 urban;$p< 0.001$) and POA conditions (9.0% vs. 14.8% vs. 16.2%; $p< 0.001$). Adjusted analyses showed no differences in composite adverse outcomes across hospital types in either age group (Figure). However, treatment at a CAH was associated with a higher home discharge rate than at rural non-CAHs (+9.1 percentage points [PP];$p< 0.01$) among under-65 adults. Post-acute care discharge destination was also lower at CAHs compared with rural non-CAHs (−8.0 PP;$p< 0.01$), but not compared with non-CAHs overall (−3.0 PP;$p< 0.10$). Among 65+ adults, CAHs were associated with higher routine discharge rates (+7.5 PP;$p< 0.05$) and lower post-acute care use (−13.8 PP;$p< 0.01$) compared with non-CAHs, with similar reductions observed relative to rural and urban hospitals. Length of stay was largely similar across hospital types, although CAHs were associated with longer stays among 65+ adults (+22.1 %;$p< 0.05$). Findings were robust in the CAH vs rural non-CAH comparisons.

Conclusion: Non-elective general surgical care at CAHs appears safe and efficient compared with rural and urban non-CAH facilities. Patients treated at CAHs tended to be less medically complex at baseline, suggesting effectiveness in triaging and allocation. These findings align with prior nationwide studies and suggest that within-rural comparisons may reduce confounding when evaluating surgical care across hospital types. Fixed effects models accounting for time and location provide a robust framework for evaluating rural surgical care and may help guide clinical and policy decision-making.

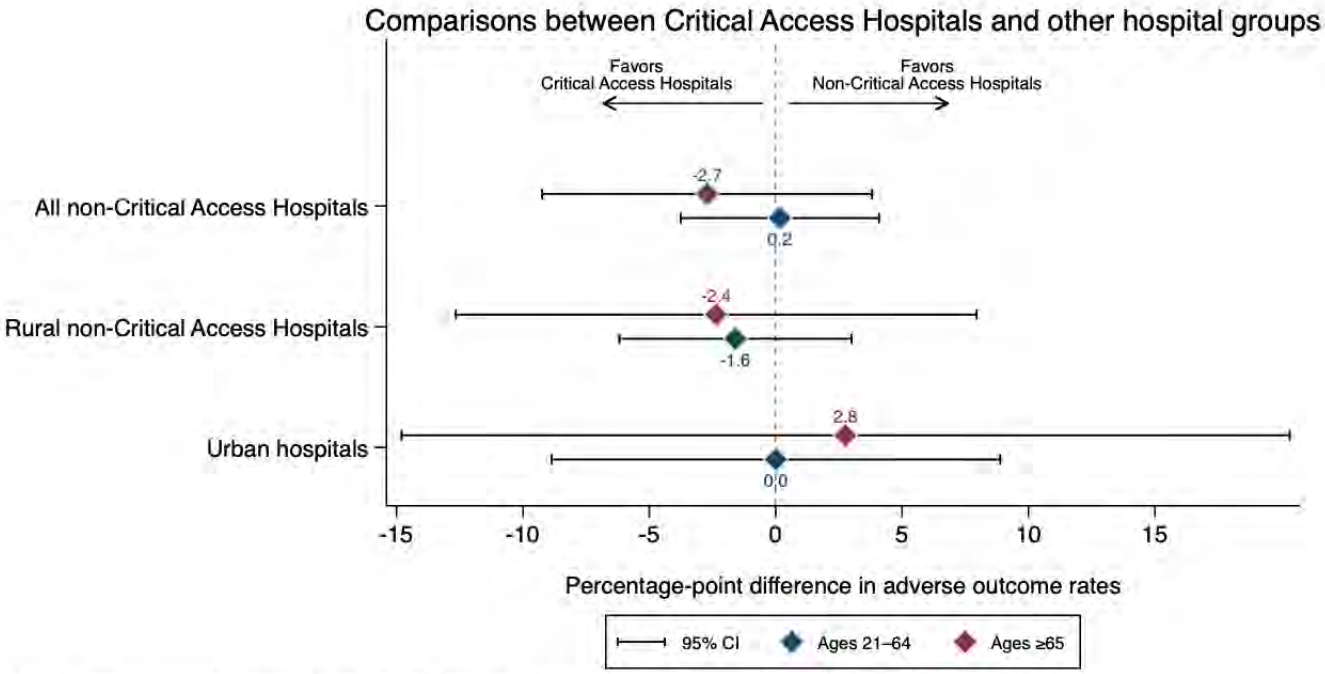


Figure. Adjusted association between hospital type and composite adverse outcome among rural surgical patients in Kentucky, 2016–2024.

10. WHEN TRANSFER FAILS TO HELP: CHARACTERIZING POTENTIALLY FUTILE EMERGENCY GENERAL SURGERY TRANSFERS

M Castillo-Angeles, A Salim, J Havens, S Nitzschke
Presenter: Manuel Castillo-Angeles MD, MPH | Brigham and Women's Hospital

Background: Regionalization and increasing reliance on interfacility transfer have led to a steady rise in emergency general surgery transfers to tertiary centers. These transfers are associated with worse outcomes, delays in definitive care, and substantial resource utilization at receiving centers. In some cases, transfers result in admission without operative or procedural intervention and death shortly after arrival; these potentially futile transfers raise concerns about pretransfer risk assessment, goals-of-care communication, and system efficiency. We aimed to determine the incidence and factors associated with these potentially futile transfers.

Methods: This was a retrospective analysis of the National Inpatient Sample database from 2015 to 2018. We included all adult patients admitted with common EGS diagnoses (diverticulitis, bowel obstruction, peptic ulcer, ischemic bowel, appendicitis, and cholecystitis) who were transferred in from a different acute care hospital. A futile transfer was defined as death without an operative intervention within 72 hours of admission. Multivariable logistic regression was used to determine factors associated with futile transfers.

Results: Among 2,999,059 EGS admissions, 162,045 (5.42%) were transferred in from a different acute care hospital. Mean age was 59.59 (SD 18.78), 54.76% were female, and 77.6% were white. Of all transfers, 131,4857 (81.14%) did not undergo any surgical intervention; and of those, 1,030 (0.64%) died within 72 hours, and were classified as futile transfers. After adjusted analysis, factors associated with futile transfers were age (>=65 years old, OR 2.41, 95% CI 1.69–3.45), being non-white (OR 1.35, 95% CI 1.01–1.82), and Charlson Comorbidity Index (>=2, OR 5.47, 95% CI 3.36–8.89). Sex and insurance status were not associated with our outcome.

Conclusion: A small but meaningful proportion of EGS transfers result in early death without intervention. Improved pretransfer communication, standardized risk stratification, and earlier goals-of-care discussions may reduce burdensome transfers and allow patients to remain closer to home.

11. RIGHT-SIZING GERIATRIC TRAUMA: PROTOCOL-DRIVEN TRIAGE REDUCES TRAUMA ACTIVATIONS WITHOUT COMPROMISING SAFETY

AC Maneval, S Thomasian, S Gonzalez, A Alipour, Y Hashim, S Torbati, DR Margulies, G Barmparas
Presenter: Andrew Maneval MD | Cedars-Sinai Medical Center

Background: Geriatric trauma patients present distinct physiologic risk, injury patterns, and resource needs that may not be well captured by standard activation criteria. Age-based activation strategies may reduce missed injury but may also increase over-triage and resource utilization. We analyzed the impact of implementing a geriatric trauma activation protocol (GTA) on triage patterns, resource utilization, and clinical outcomes. We hypothesized that GTA implementation would be associated with lower trauma activation rates without compromising patient safety.

Methods: We performed a retrospective review of trauma patients aged ≥ 65 years who presented to our urban, Level I trauma center after a fall or motor vehicle collision between 1/2017 and 8/2025. Patients were compared before and after GTA implementation on 3/31/2020. Activation of the protocol triggers expedited room assignment, immediate emergency department (ED) attending evaluation, and rapid imaging without formal trauma activation unless clinical deterioration warrants escalation. Demographics, triage level, injury severity score (ISS), and clinical outcomes were compared between groups. Triage accuracy was calculated using the Cribari Matrix, while true under-triage was determined by chart review and was defined as no activation despite meeting trauma center's activation criteria. The primary outcome was trauma activation rate (Level I and II). Secondary outcomes were intensive care unit (ICU) admission, in-hospital mortality, and time to first computed tomography scan (tCT1). Multivariable logistic regression was utilized to adjust for differences between the two cohorts. Statistical significance was $p< 0.05$.

Results: A total of 1,102 patients were included; 38% (n=418) were pre-GTA and 62% (n=684) were post-GTA. Pre- and post-GTA patients were similar in age (median 80 vs 79 years, p=0.24), sex (51% female in both groups, p=0.94), and chronic anticoagulation (16% vs 18%, p=0.50). Post-GTA patients had higher ISS (median 6 vs 10, $p< 0.01$) and higher rates of traumatic brain injury (38% vs 47%, $p< 0.01$). There was no significant difference in ICU admission (53% vs 51%, p=0.55) and tCT1 remained unchanged (median 55 vs 70 minutes, p=0.28) between groups. After adjusting for age, sex, anticoagulation, initial Glasgow Coma Score (GCS), and ISS, GTA implementation was associated with significantly lower adjusted odds of trauma activation (46% vs. 28%, aOR 0.36, $p< 0.01$), with a corresponding significant increase in trauma consultations (54% vs 72%, $p< 0.01$). In addition, the adjusted odds of ICU admission were significantly lower, (aOR 0.56, $p< 0.01$) with no difference in adjusted mortality (aOR 0.55, p=0.14). By Cribari Matrix, post-GTA patients had lower potential over-triage (35% vs. 18%, $p< 0.01$) but higher potential under-triage (13% vs 22%, $p< 0.01$). However, chart review identified only 6 cases of true under-triage (5 pre-GTA vs 1 post-GTA) overall.

Conclusion: Implementation of a GTA protocol significantly restructured geriatric trauma triage patterns, shifting patients from trauma activation towards trauma consultation, while reducing potential over-triage. Despite higher injury severity in the post-GTA cohort, implementation was not associated with increased ICU admission or mortality. True under-triage was exceedingly rare. These findings support selective GTA protocols and suggest that standard triage benchmarks may overestimate under-triage when applied to protocolized geriatric trauma consultation pathways.

12. ROUTINE BUT INEFFECTIVE? SALINE HYDRATION PROPHYLAXIS BEFORE PERIPHERAL VASCULAR INTERVENTION

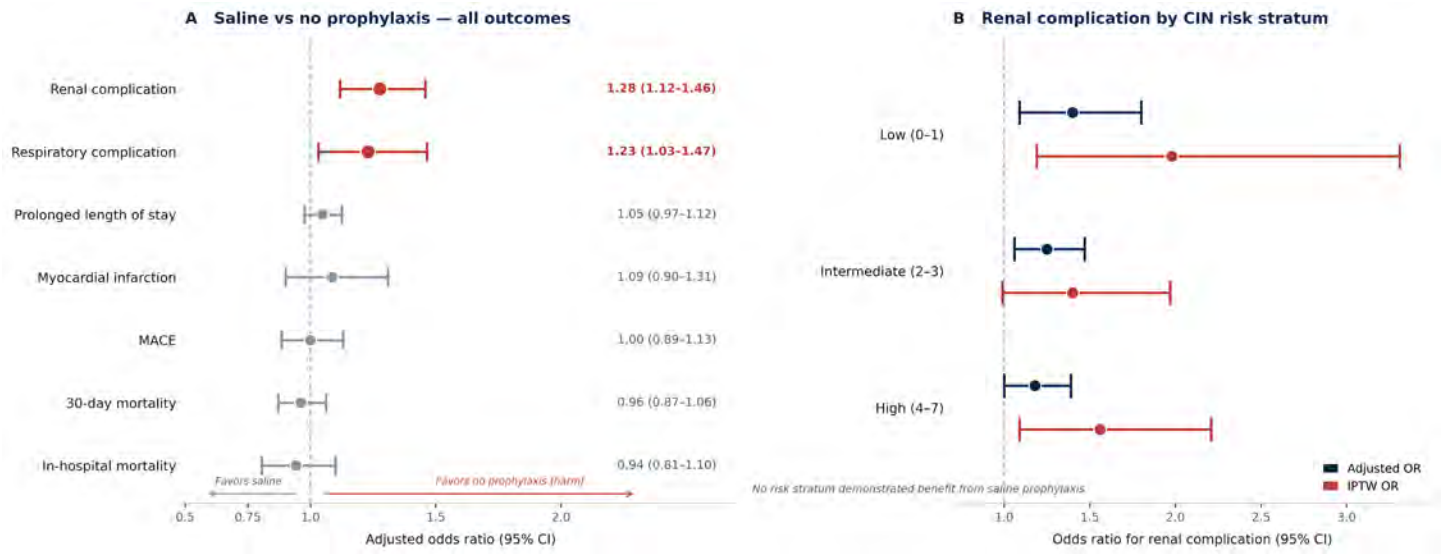
P Nakhaei, M Malas
Presenter: Pooria Nakhaei MD, MBA | University of California, San Diego

Background: Contrast-induced acute kidney injury (CI-AKI) is a recognized complication of endovascular procedures, associated with prolonged hospitalization, progression of chronic kidney disease (CKD), and increased mortality. Periprocedural saline hydration is widely considered the cornerstone of CI-AKI prevention and is recommended for patients with renal impairment undergoing contrast administration. However, the supporting evidence derives largely from the coronary literature, and recent randomized trials have challenged whether prophylactic hydration confers meaningful renal protection. Whether saline prophylaxis reduces renal complications in CKD patients undergoing peripheral vascular intervention (PVI) — and whether any subgroup derives benefit — remains unestablished.

Methods: We performed a retrospective cohort study using the Vascular Quality Initiative PVI Registry (2016–2025). Adults with CKD stages 3–4 (eGFR 15–60 mL/min/1.73m²) undergoing elective infra-inguinal PVI for occlusive disease at 426 centers were included. The primary outcome was in-hospital renal complication (creatinine increase ≥0.5 mg/dL or new dialysis). Secondary outcomes included respiratory complication, mortality, myocardial infarction (MI), major adverse cardiovascular events (MACE), and prolonged length of stay. Multivariable logistic regression with cluster-robust standard errors and inverse probability of treatment weighting (IPTW) were used. Restricted cubic splines tested whether the saline effect varied across eGFR, contrast volume, and contrast-to-eGFR ratio. An exploratory simplified CIN risk score (0–7) stratified patients into low (0–1), intermediate (2–3), and high (4–7) baseline risk.

Results: Of 49,582 patients, 32,040 (64.6%) received saline prophylaxis. Saline was independently associated with higher odds of renal complication (aOR 1.28, 95% CI 1.12–1.46, p0.10). Saline remained independently associated with renal complication across all CIN risk strata — low (aOR 1.40, p=0.009), intermediate (aOR 1.25, p=0.009), and high (aOR 1.18, p=0.049) — with no subgroup demonstrating benefit.

Conclusion: In CKD patients undergoing elective PVI, saline hydration prophylaxis was independently associated with higher renal and respiratory complication risk across the full spectrum of baseline kidney function, contrast burden, and CIN risk score. No patient subgroup derived benefit. These findings challenge guideline recommendations to selectively hydrate high-risk CKD patients undergoing endovascular procedures and support reconsideration of routine saline prophylaxis in this population.



13. ESOPHAGECTOMY READMISSIONS AND THEIR COST: A NATIONAL READMISSIONS DATABASE ANALYSIS OF COMORBIDITY BURDEN AND EARLY COMPLICATIONS

J DeMeyer, P Ajith, J Flippin
Presenter: Joseph DeMeyer BS | University of Illinois College of Medicine- Peoria

Background: Esophagectomy remains the primary surgical modality for the treatment of esophageal cancer and other disorders but carries significant postoperative morbidity. 30-day all-cause readmission is a quality metric reflecting postoperative complications and healthcare utilization. Early readmission following esophagectomy is reported in a considerable number of patients and is associated with increased healthcare costs and poorer patient outcomes. The National Readmissions Database (NRD) provides nationally representative readmission data across healthcare settings. This study aims to evaluate the relationship between comorbidity burden, hospital readmission, and the cost associated with early complications following esophagectomy.

Methods: We performed a retrospective cohort study using NRD data from 2016-2022. Adult esophagectomy patients were identified by ICD-10 procedure codes. Exclusions included in-hospital mortality (1,110), transfers to short-term rehabilitation (248), and December discharges (1,704). Comorbidities and diagnoses were classified using the Elixhauser Comorbidity and Clinical Classifications Software. The primary outcome was 30-day all-cause readmission. Secondary outcomes included comorbidities, readmission diagnoses, and total charge of readmission. Chi-square and Student's t-tests were performed to compare readmitted vs. non-readmitted patients, with univariate analysis identifying associated factors. Cost analysis used a multivariable generalized linear model to identify comorbidities associated with higher readmission cost. Analyses incorporated discharge weighting to generate national estimates.

Results: 35,850 weighted index esophagectomy admissions were identified. The overall 30-day readmission rate was 10.9% (n=3,924), showing significant variability between years without a clear temporal trend (range 10.1–12.3%; p=0.007). Readmitted patients were significantly older (63.91 vs. 61.74 years; p< 0.001) and had shorter index stays (9.25 vs. 11.79 days; p< 0.001). Among comorbidities, peripheral vascular disease (PVD) conferred the highest readmission rate (16.3% vs. 10.7%; p< 0.001). Other significant predictors included complicated hypertension (13.8%), diabetes without complications (13.7%), CKD (13.5%), diabetes with complications (13.4%), heart failure (13.3%), COPD (13.1%) and hypothyroidism (12.7%; all p< 0.05). The mean 30-day readmission cost was $103,258. The most common reasons for readmission included complications related to surgical injury (18.1%), postoperative digestive complications (17.4%), septicemia (7.6%), pleurisy (7.3%), aspiration pneumonitis (4%) and pneumonia (3.7%). Postoperative digestive complications drove the highest costs as a principal diagnosis ($142,405; p< 0.001). On multivariable analysis, PVD (+35.4%; p< 0.001), diabetes with complications (+15.4%; p=0.009), and COPD (+13.4%; p=0.002) were independently associated with higher readmission costs. When complications arose during readmission, shock ($412,720), mediastinal disorders, septicemia, respiratory failure, and aspiration pneumonitis carried the highest charges, each exceeding double the overall mean (all p< 0.001).

Conclusion: Comorbidity burden — particularly PVD, diabetes with complications, and COPD — is the primary determinant of both 30-day readmission risk and cost following esophagectomy. The mean readmission cost of $103,258, with shock, mediastinal disorders, and septicemia driving charges exceeding $250,000, underscores the economic burden of preventable readmissions. These findings support comorbidity-targeted risk stratification and value-based care pathways to reduce clinical and financial burden in this high-acuity population.

Table 1. Independent Predictors of Readmission Cost and Mean Charges by Complication During Readmission Following Esophagectomy

Comorbidity	N Cases, %(Weighted)	Mean Readmission Cost ($)	Multivariate B(p-value)	% Cost Increase*
Independent Comorbidity Predictors of Higher Readmission Cost (Multivariable GLM)				
Peripheral vascular disease	302 (7.7%)	$136,095	0.303 (<0.001)	+35.4%
Diabetes with complications	479 (12.2%)	$120,304	0.143 (0.009)	+15.4%
COPD	936 (23.9%)	$112,422	0.126 (0.002)	+13.4%
Complication During Readmission	**N Cases, %(Weighted)**	**Mean Cost With ($)**	**Mean Cost Without ($)**	**p-value**
Mean Readmission Cost by Complication During Readmission (ranked highest to lowest)				
Shock	211 (5.4%)	$412,720	$85,493	<0.001
Mediastinal disorders	207 (5.3%)	$292,384	$92,655	<0.001
Septicemia	636 (16.2%)	$257,009	$73,193	<0.001
Respiratory failure	656 (16.7%)	$246,855	$74,127	<0.001
Aspiration pneumonitis	398 (10.1%)	$200,259	$92,203	<0.001
Acute renal failure	449 (11.4%)	$189,885	$91,956	<0.001
Postoperative respiratory complication	227 (5.8%)	$188,734	$97,951	<0.001
Pneumonia	605 (15.4%)	$178,145	$89,467	<0.001
GI hemorrhage	154 (3.9%)	$173,398	$100,376	<0.001
Pleural effusion / pulmonary collapse	1,546 (39.4%)	$168,953	$59,955	<0.001
Pericarditis	147 (3.7%)	$164,411	$100,859	<0.001
Postoperative digestive complication	1,096 (27.9%)	$163,177	$79,765	<0.001
Overall mean 30-day readmission cost		**$103,258**		

*GLM = generalized linear model with gamma distribution and log link; COPD = chronic obstructive pulmonary disease. N cases and percentages reflect weighted national estimates as a proportion of total readmitted cohort (n=3,924). *Percent cost increase relative to patients without that comorbidity, based on multivariate B coefficient. All cost values represent mean total weighted readmission charges in USD.*

14. Primary Dermal Melanoma Demonstrates Similar Survival to Stage-Matched Cutaneous Melanoma: A Multi-Institutional Case-Control Study

A Taha, R Guo, B Pockaj, Yahya A, Z Li, J Johnson, B Doonan, J Jakub
Presenter: Ahmed Taha MD | Mayo Clinic Florida

Background: Primary dermal melanoma (PDM) is a subtype of melanoma isolated to the dermis without an associated junctional component or epidermal involvement, which pathologically resembles dermal metastases (DM), thus raises significant diagnostic and management challenges. Retrospective studies have consistently demonstrated that PDM has a significantly more favorable prognosis than dermal metastases and a clinical course comparable to stage-matched primary cutaneous melanoma (PCM). However, existing data is limited to small, predominantly single-institution series.

We hypothesize that the prognosis for PDM is similar to PCM of similar T-category. This study aims to compare the outcomes of PDM and PCM.

Methods: This retrospective case-control study was conducted across three academic medical centers under Institutional Review Board approval. Initial screening was performed using a natural language model to search an enterprise database for patients with a pathologically confirmed diagnosis of melanoma between 2010 and 2026. Pathology reports containing predefined keywords including "dermal melanoma," "no epidermal component," and "no junctional component" were identified and manually reviewed for confirmation.

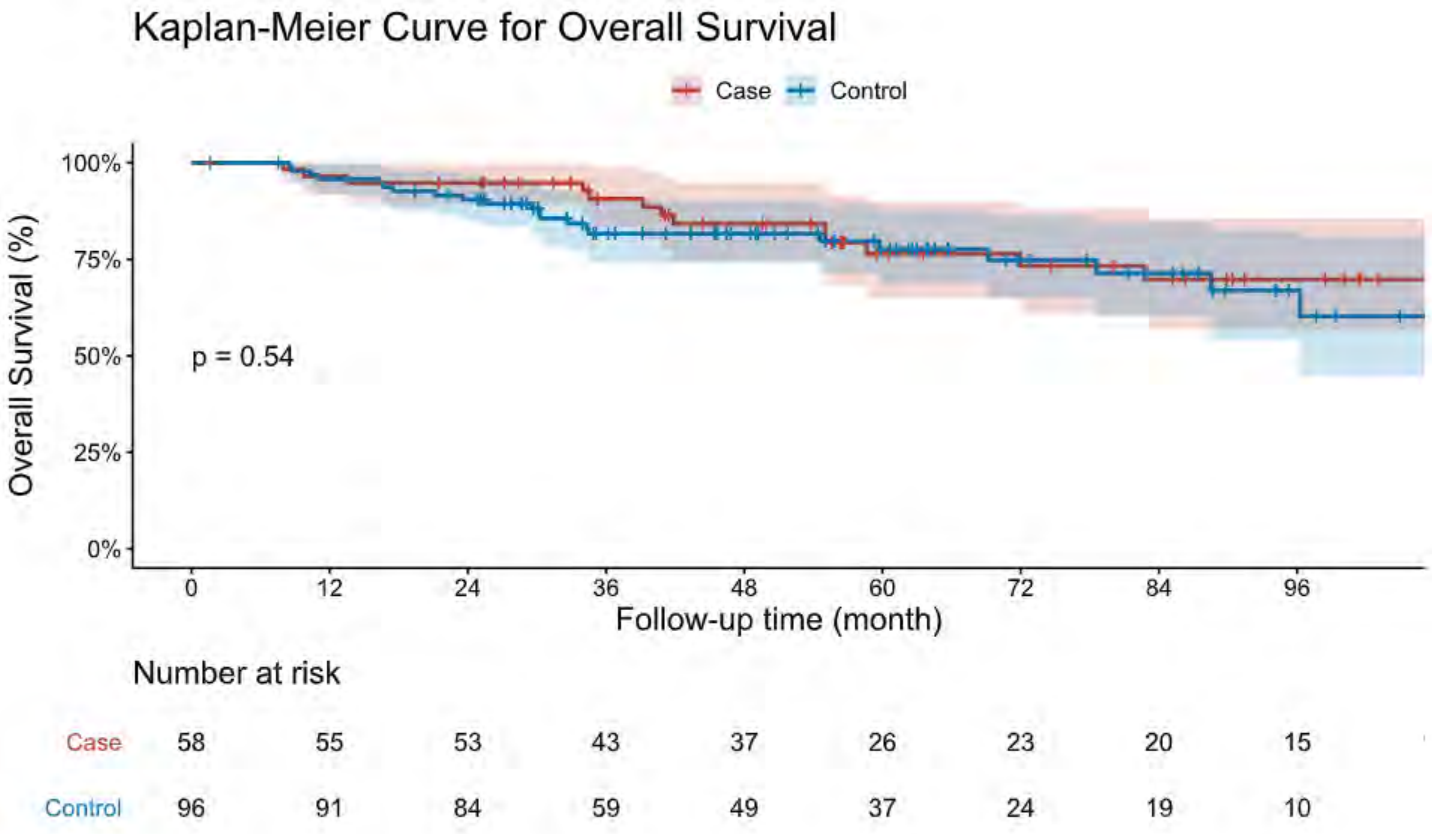
Cases and controls were matched 1:2, based on age, sex, Breslow depth, and ulceration status. Survival was estimated using the Kaplan-Meier method and compared with the log-rank test.

Results: Fifty-eight patients with PDM and ninety-six matched PCM controls were identified. The two groups were well-matched at baseline, with no clinically meaningful differences in age at diagnosis (63.98 ± 13.64 vs. 63.66 ± 12.98 years; SMD=0.025), sex (62.1% vs. 65.6% male; SMD=0.074), Breslow depth (5.36 ± 5.03 vs. 5.26 ± 7.14 mm; SMD=0.017), ulceration status (12.1% vs. 16.7%; SMD=0.131), or disease stage (SMD=0.198).

BRAF testing was performed in 50.0% of cases (29) versus 8.3% of controls (8) ($p< 0.001$), with positive mutations identified in 8.6% of cases and none in controls. PET imaging was obtained in 81.0% of cases versus 65.6% of controls ($p=0.008$), with positive findings suspicious for metastatic disease identified in 17.2% of cases compared to 4.2% of controls. Despite more systemic imaging in patients with PDM, a similar number of patients had nodal metastasis (27.6% vs 22.9%) and very few had distant metastatic disease (5.2% vs 1%, respectively). Median wide local excision margins were 2.0cm in both cohorts ($p=0.91$). Systemic therapy was administered as part of initial therapy to 20/58 (34.5%) patients with PDM and 36/96 (37.5%) PCM ($p=0.71$)

Eight-year overall survival was 69.8% (95% CI: 56.7–85.8%) for PDM versus 66.9% (95% CI: 54.2–82.7%) in controls ($p=0.54$). Distant metastasis-free survival (69.6% vs 56.7%, $p=0.22$) and recurrence-free survival (59.2% vs 49.8%, $p=0.55$) were also similar between groups.

Conclusion: This multi-institutional matched analysis represents one of the largest comparative studies of PDM. PDM was more often evaluated with BRAF testing and PET scan, likely given diagnostic uncertainty with metastatic disease. Compared to PCM, PDM cases demonstrated no statistically significant difference in overall survival or recurrence-free survival when matched by age, sex, Breslow depth, and ulceration status. These findings support managing PDM as a primary melanoma with guideline concordant curative management rather than as metastatic disease.


Kaplan-Meier Curve for Overall Survival
Case
Control
Overall Survival (%)
100%
75%
50%
25%
0%
p = 0.54
0
12
24
36
48
60
72
84
96
Follow-up time (month)
Number at risk
Case 58 55 53 43 37 26 23 20 15
Control 96 91 84 59 49 37 24 19 10

15. THE SOUND EFFECT: IMPLICATIONS OF AXILLARY STAGING OMISSION IN THE SETTING OF RADIATION DE-ESCALATION

S Lloy, L Geisel, D Hanes, S Stern, J Grumley, C Fancher
Presenter: Lauren Geisel MD | Saint John's Cancer Institute

Background: The SOUND trial demonstrated that omission of axillary surgery is noninferior to sentinel lymph node biopsy (SLNB) in patients with clinically node-negative, early-stage, hormone receptor-positive, HER2-negative breast cancer. As axillary management is increasingly de-escalated, the safety of further adjuvant treatment de-escalation remains uncertain. Nodal metastases may affect eligibility for partial breast irradiation (PBI) and necessitate regional nodal irradiation in selected patients. This study evaluates the incidence of occult nodal metastases among patients meeting SOUND eligibility criteria and the impact on radiation treatment.

Methods: Using our institutional, prospectively maintained, IRB- approved breast cancer database, we performed a retrospective review of patients aged 18–70 years with T1, grade 1–2, estrogen receptor-positive, HER2-negative breast cancer. Axillary imaging and pathologic nodal staging were evaluated to identify the incidence of occult nodal metastases. Adjuvant treatments were compared between patients with and without evidence of nodal metastasis.

Results: From 2018-2025, a total of 281 patients met inclusion criteria. Abnormal preoperative axillary imaging was identified in 22 patients (7.8%). Subsequently imaging work-up identified 12 patients who required axillary lymph node core biopsy, all of which were benign. Despite negative preoperative imaging or benign biopsy, 59 patients (21.0%) were found to have occult nodal metastases on final surgical pathology. Among node positive patients, 27.1% had isolated tumor cells (ITC), 42.4% had micrometastasis and 30.5% had macrometastasis on histology. Patients with positive sentinel lymph nodes had significantly larger primary tumors compared with node-negative patients (16 mm vs. 11 mm, p =50), race, BMI, histology, or tumor grade. Overall, radiation treatment plans changed in 43 of 281 patients (15.3%) because of nodal pathology. Twenty-eight patients who were treated with adjuvant radiation received nodal radiation due to the presence of nodal disease. Fifteen IORT patients required escalation of radiation therapy with the addition of whole-breast radiation, with 14 of these patients also receiving regional nodal radiation (Table 1). Among the remaining 9 IORT patients with positive sentinel lymph nodes, eight had isolated tumor cells or micrometastases and were not recommended for additional radiation, while one patient declined further radiation treatment.

Conclusion: Among patients meeting SOUND eligibility criteria, occult nodal metastases were identified in approximately 21% of cases despite negative preoperative axillary evaluation. Pathologic nodal status influenced adjuvant treatment recommendations, particularly radiation therapy selection. As de-escalation strategies such as IORT and external PBI are increasingly considered for low-risk patients, omission of axillary staging may limit identification of patients who require broader radiation fields. Because the oncologic safety of radiation de-escalation without nodal information was not addressed in the SOUND trial, these findings highlight the continued importance of pathologic nodal assessment in guiding individualized breast cancer treatment.

Table 1: Radiation Treatment Based on Axillary Nodal Staging

	Radiation Modality	# of Patients
	Patients meeting SOUND Criteria	281
Presurgical Radiation Plan	IORT	142
	Adjuvant RT	110
	No RT	29
Lymph node negative on surgical path	No changes to radiation treatment plan	222 (79%)
Lymph node positive on surgical pathology n=59 (21%)	No radiation	3
	External PBI only	1
	WBI only	3
	WBI + nodal RT	**28**
	IORT only	9
	IORT with additional WBI	**1**
	IORT with additional WBI and nodal RT	**14**
	Total # of patients that had changes to RT plans after SLNB	43 (15.3%)

16. LOCALIZED PANCREATIC DUCTAL ADENOCARCINOMA; IS THE POTENTIAL BENEFIT OF NEOADJUVANT THERAPY STAGE DEPENDENT?

SS Park, C Scaife, TC Gamblin, FA Luchette, MS Baker*
Presenter: Simon Park Ph.D. | Loyola University Medical Center

Background: Subset analyses of recent international randomized trials suggest that there is a survival benefit to neoadjuvant systemic therapy (NAC) in patients presenting with borderline resectable pancreatic ductal adenocarcinoma (PDAC) but not in those with resectable PDAC. These trials include small numbers of patients with tumors deemed to have early-stage PDAC prior to treatment. The value of neoadjuvant therapy in early-stage PDAC has not been defined.

Methods: We queried the National Cancer Database to identify patients presenting with localized (clinical stage I to III) PDAC between 2010 and 2022. Multivariable regression (MVR) was used to identify factors associated with use of NAC. Patients at each clinical stage undergoing NAC were 1:1 propensity matched for age, comorbid disease and insurance type to those of like clinical stage undergoing upfront resection followed by adjuvant systemic therapy (AC). Kaplan Meier (KM) analysis was used to compare 5-year overall survival (OS) profiles for matched cohorts.

Results: 124,587 patients met inclusion criteria; 17,133 (13.8%) underwent NAC prior to resection, 22,198 (17.8%) resection followed by AC, 7,010 (5.6%) underwent resection alone and 78,246 (62.8%) were treated with chemotherapy/chemoradiotherapy alone. 9658 (7.8%) presented with clinical stage IA PDAC; among these 1475 (15.2%) underwent NAC prior to resection. The annual percentage of patients being treated with NAC increased steadily over the study period from 2.24% in 2010 to 12.20% in 2022. On MVR, factors independently associated with use of NAC (all $p< 0.01$) included: age (aOR: 0.975; 95% CI [0.972, 0.978]), race (white relative to non-white, aOR: 1.095; 95% CI [1.024, 1.169]), insurance type (private relative to none, aOR: 1.558; 95% CI [1.277, 1.902]), educational level (□15% no high school diploma relative to < 15%, aOR: 0.846; 95% CI [0.795, 0.900]), clinical stage (stage III relative to IA, aOR: 11.91; 95% CI [10.57, 13.42]) and facility type (academic relative to community, aOR: 3.351; 95% CI [2.586, 4.343]). Across all clinical stages, use of multimodal therapy (either NAC followed by surgery or surgery followed by AC) was associated with an absolute increase in OS of greater than 15% relative to either surgery alone or chemotherapy alone. On comparison of propensity matched treatment cohorts, there were marginal but statistically significant differences in OS between patients undergoing NAC followed by surgery and those undergoing surgery followed by AC for patients presenting with clinical stages IB, II and III disease (stage IB: 30.9% vs 26.4%; stage II: 26.3% vs 19.6%; stage III: 24.5% vs 18.9%; all $p< 0.01$) but no statistical difference in OS for patients presenting with clinical stage IA PDAC (39.2% vs. 35.0%, $p=0.12$).

Conclusion: In patients undergoing treatment for localized PDAC, use of systemic therapy as an adjunct to surgical resection is associated with significant improvement in OS. Neoadjuvant sequencing of systemic therapy is associated with marginal improvement in OS in patients presenting with clinical stage IB, II and III PDAC but not in those with clinical stage IA PDAC.

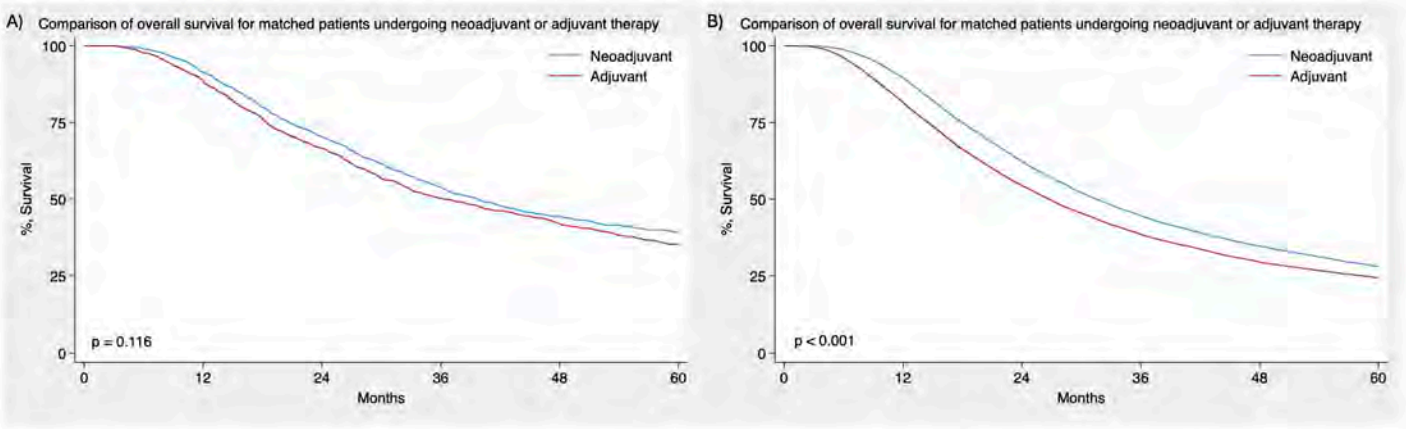


Figure 1. 5-year OS for A) patients with clinical stage IA pancreatic cancer undergoing treatment matched for age, CCI, insurance and B) patients with clinical stages IB-III pancreatic cancer undergoing treatment matched for age, CCI, insurance.

17. CLINICAL UTILITY OF PERITONEAL FLUID CA 19-9/CEA LEVELS DURING STAGING LAPAROSCOPY FOR PANCREATIC DUCTAL ADENOCARCINOMA: PREDICTING OCCULT AND SUBSEQUENT DISEASE

E Siegler, H Gudmundsdottir, D Carlson, M Truty, J Leiting
Presenter: Emily Siegler MD | Mayo Clinic Rochester

Background: Peritoneal recurrence after resection of pancreatic ductal adenocarcinoma (PDAC) remains a common devastating outcome, highlighting limitations of current staging strategies to detect and predict peritoneal dissemination. Improved identification of patients at increased risk for peritoneal metastasis may refine prognostic stratification and guide treatment sequencing. We evaluated the predictive ability of commonly used tumor marker (Ca 19-9/CEA) levels in peritoneal fluid obtained at staging laparoscopy to identify increased risk of peritoneal dissemination and predict subsequent peritoneal recurrence.

Methods: A single-institution retrospective cohort study was performed of consecutive patients with pancreatic ductal adenocarcinoma (PDAC) who underwent staging laparoscopy between January 2015 and December 2024. All patients underwent standard laparoscopic inspection of the peritoneal cavity for gross metastatic disease followed by peritoneal lavage with 1 L of normal saline for cytologic assessment. Peritoneal Ca 19-9 and CEA concentrations were measured from lavage fluid and classified as normal or elevated using standardized institutional thresholds (Ca 19-9 ≥0.7 U/mL; CEA ≥5 ng/mL). The primary outcomes were: (1) positive staging laparoscopy, defined as gross peritoneal metastatic disease and/or positive peritoneal cytology, and (2) postoperative peritoneal recurrence among patients with negative staging laparoscopy who subsequently underwent curative-intent resection. Associations between peritoneal tumor marker levels, peritoneal dissemination, and recurrence were evaluated using chi-square and Fisher's exact tests. Recurrence-free survival was assessed using Kaplan–Meier methods and Cox proportional hazards regression. Statistical significance was defined as $p < 0.05$.

Results: Among 1,963 patients undergoing staging laparoscopy for PDAC, 359 (18.3%) had gross peritoneal metastases and/or positive peritoneal cytology. Of those with gross disease, peritoneal cytology sensitivity was only 42.5%. Elevated peritoneal Ca 19-9 was strongly associated with positive laparoscopy (42.8% vs 12.0%; OR 5.47, 95% CI 4.13–7.24; $p < 0.001$), as was elevated peritoneal CEA (56.6% vs 15.9%; OR 6.91, 95% CI 4.90–9.76; $p < 0.001$) (Table 1).

Among 440 patients with negative staging laparoscopy who underwent curative-intent resection, 64 (14.5%) had elevated peritoneal tumor markers. Overall postoperative peritoneal recurrence occurred in 7.7% (34/440) of patients and was significantly more likely in patients with elevated peritoneal fluid Ca 19-9 (10/58, 17.2%) compared to patients with normal levels (24/382, 6.3%) (Fisher's exact $p=0.008$). Elevated peritoneal Ca 19-9 was also associated with worse peritoneal recurrence-free survival (log-rank $p=0.0038$; Figure 1) and remained an independent predictor of peritoneal recurrence after adjustment for serum Ca 19-9 (HR 2.99, 95% CI 1.38–6.47; $p=0.005$). In contrast, peritoneal CEA was not associated with recurrence (HR 0.76, 95% CI 0.10–5.54; $p=0.78$), although only six patients had isolated CEA elevation.

Conclusion: Elevated peritoneal Ca 19-9 and CEA were strongly associated with gross or cytologic evidence of peritoneal dissemination at staging laparoscopy. Given the limited sensitivity of peritoneal cytology alone, additional markers are needed to improve detection of occult disease. Among patients with negative staging laparoscopy who underwent resection, elevated peritoneal Ca 19-9 independently predicted subsequent peritoneal recurrence. These findings suggest that peritoneal tumor marker analysis may enhance staging accuracy, identify patients at high risk for occult peritoneal metastasis and recurrence, and inform selection of intensified systemic or peritoneal-directed treatment strategies.

Table 1: Association between peritoneal tumor markers and gross or cytologic evidence of peritoneal dissemination at staging laparoscopy.

	Gross and Cytology Negative	Gross or Cytology Positive	OR (95% CI)	Chi-square p-value
Peritoneal Ca 19-9 (N=1,336)				
Normal	834/948 88.0%	144/948 12.0%		
Elevated	222/388 57.2%	166/388 42.8%	5.47 (4.13-7.24)	< 0.001
Peritoneal CEA (N=1,337)				
Normal	985/1171 84.1%	186/1171 15.9%		
Elevated	72/166 43.4%	94/166 56.6%	6.91 (4.90-9.76)	< 0.001

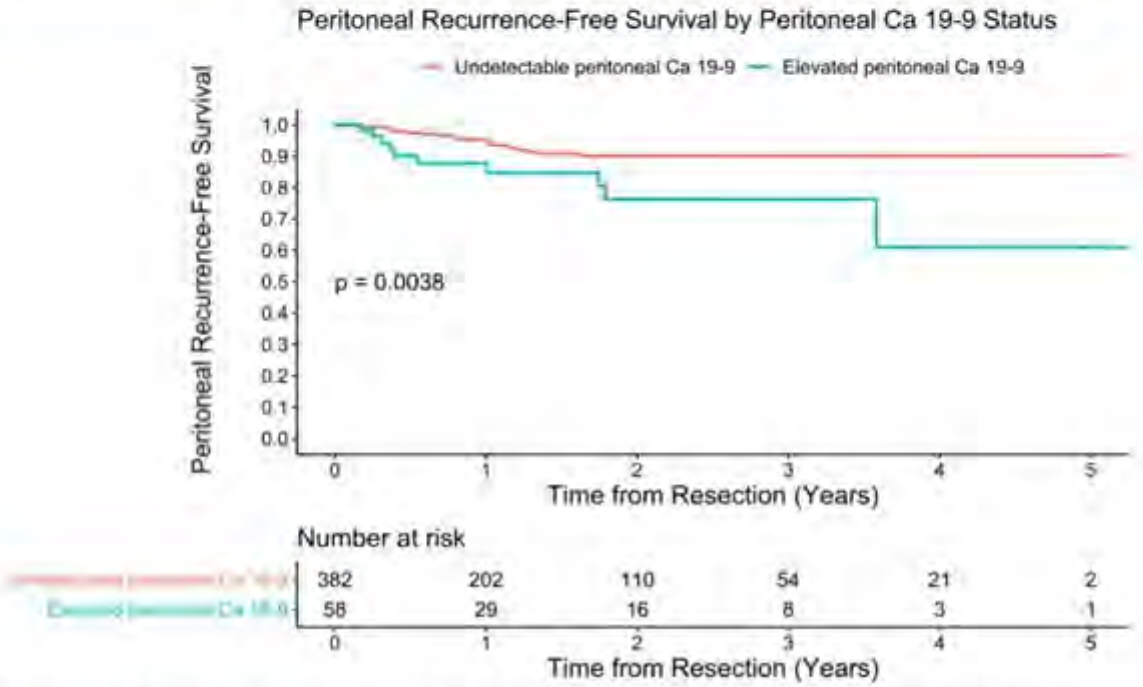


Figure 1: Elevated peritoneal Ca 19-9 is associated with worse peritoneal recurrence-free survival following resection for PDAC.

18. MOLECULAR RESIDUAL DISEASE DETECTION DOUBLES RECURRENCE RISK FOLLOWING CURATIVE-INTENT THERAPY FOR HEPATOCELLULAR CARCINOMA

RCG Martin, ME Egger, M Driscoll, DA Nelson, J Grewal, CR Scoggins, P Philips
Presenter: Robert MArtin MD, PhD | University of Louisville

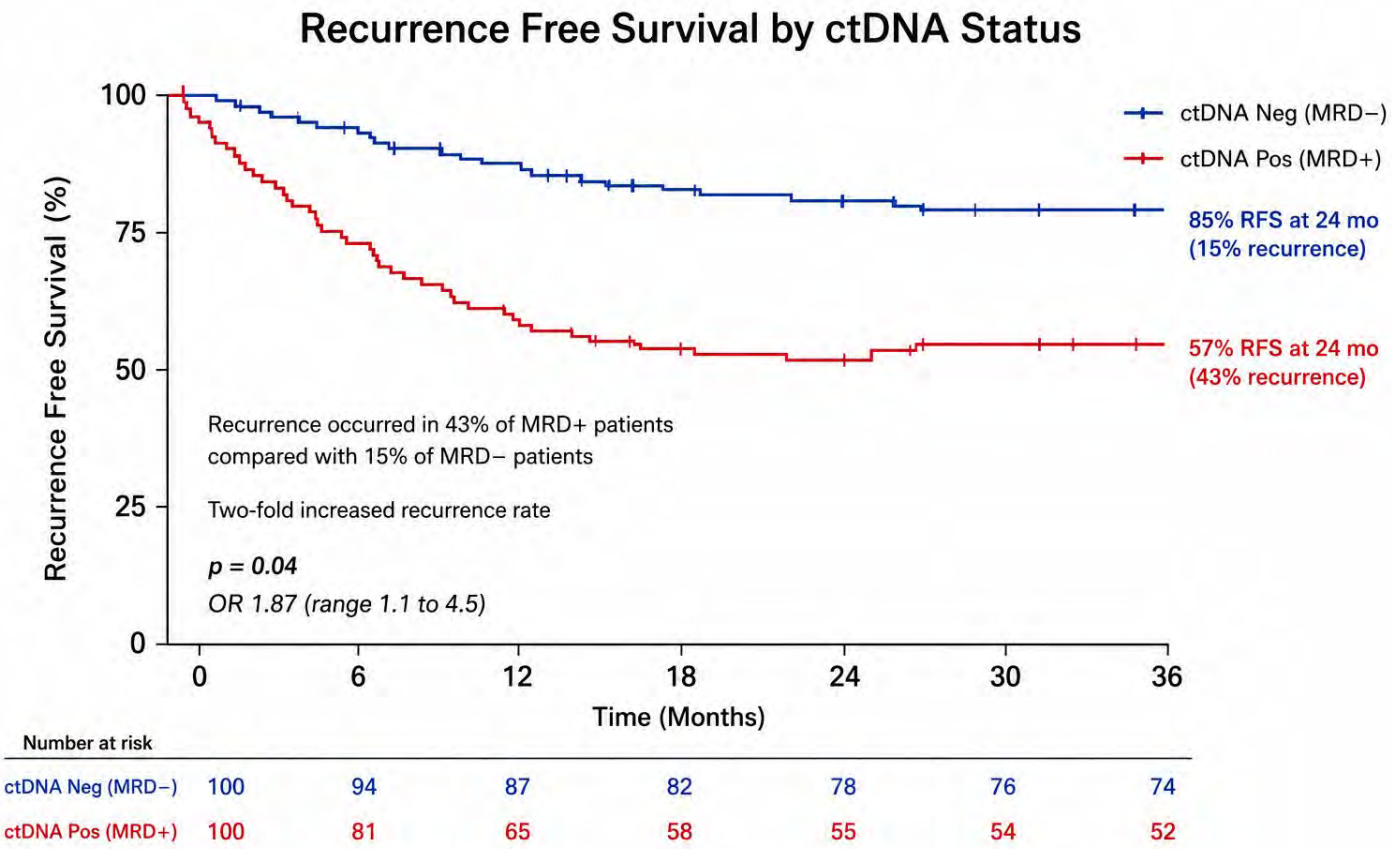
Background: Recurrence following curative-intent treatment of hepatocellular carcinoma (HCC) remains common, yet reliable biomarkers for early identification of patients at highest risk are lacking. Tumor-informed circulating tumor DNA (ctDNA) assays offer the potential to detect molecular residual disease (MRD) before clinical recurrence. We evaluated the association between postoperative ctDNA positivity, recurrence, and survival in a real-world HCC cohort.

Methods: HCC Patients undergoing tumor-informed ctDNA testing following treatment for HCC evaluated by a prospective UL IRB approved treatment protocol from 7/2024-1/2026. the ctDNA results were categorized as Ever Positive (MRD+) or Only Negative (MRD−). Clinical recurrence, overall survival (OS), and vital status were compared between ctDNA groups.

Results: Sixty-one patients with BCLC stage 0/A HCC underwent curative intent resection and/or microwave ablation and had ctDNA testing, of whom 46 (75.6%) were successfully created by adequate tumor collection for this tumor-informed assay. forty-one patients (67.7%) demonstrated a positive ctDNA pre-operative, while 20 (29.0%) were negative at the time of curative intent resection/ablation.

Recurrence occurred in 43% of MRD+ patients compared with 15% of MRD− patients, representing a two-fold increased recurrence rate(p=0.04, OR 1.87 (range 1.1 to 4.5)(Figure). Median recurrence free survival for ctDNA+ was 11.4 months (range 4.6-15mon) and ctDNA- was 25.6 months (range 19 to not reached). A ctDNA+ test also predicted recurrence 5.6 months before seen on cross sectional imaging by RECISIT 1.1. Similarly, death occurred in 26.7% of MRD+ patients versus 8.3% of MRD− patients. Median observed OS was 19.5 months in MRD+ patients and 26.1 months in MRD− patients; however, survival interpretation was limited by ongoing follow-up and small event numbers. No other statistically significant associations were found between recurrence rates and pre-operative alpha-fetoprotein (AFP), aspartate aminotransferase-to-lymphocyte ratio index (ALRI), aspartate aminotransferase-to-platelet ratio index (APRI), platelet-to-lymphocyte ratio (PLR), alkaline phosphatase-to-albumin ratio (APAR), and platelet-to-albumin ratio (PAR). Notably, AFP trended toward significance in logistic regression (p = 0.058) with an odds ratio of 1.012 per unit increase.

Conclusion: Tumor-informed ctDNA positivity following treatment for HCC was associated with approximately double the risk of recurrence compared with persistently negative ctDNA results. These findings support ctDNA as a clinically actionable marker of molecular residual disease and suggest a role for ctDNA-guided surveillance and adjuvant treatment strategies in HCC.



Number at risk							
ctDNA Neg (MRD−)	100	94	87	82	78	76	74
ctDNA Pos (MRD+)	100	81	65	58	55	54	52

RFS = Recurrence Free Survival; ctDNA = circulating tumor DNA; MRD = Minimal Residual Disease

19. LIVER TRANSPLANTATION FOR CHOLANGIOCARCINOMA IN THE UNITED STATES: AN ANALYSIS OF 1,551 PATIENTS OVER FOUR DECADES

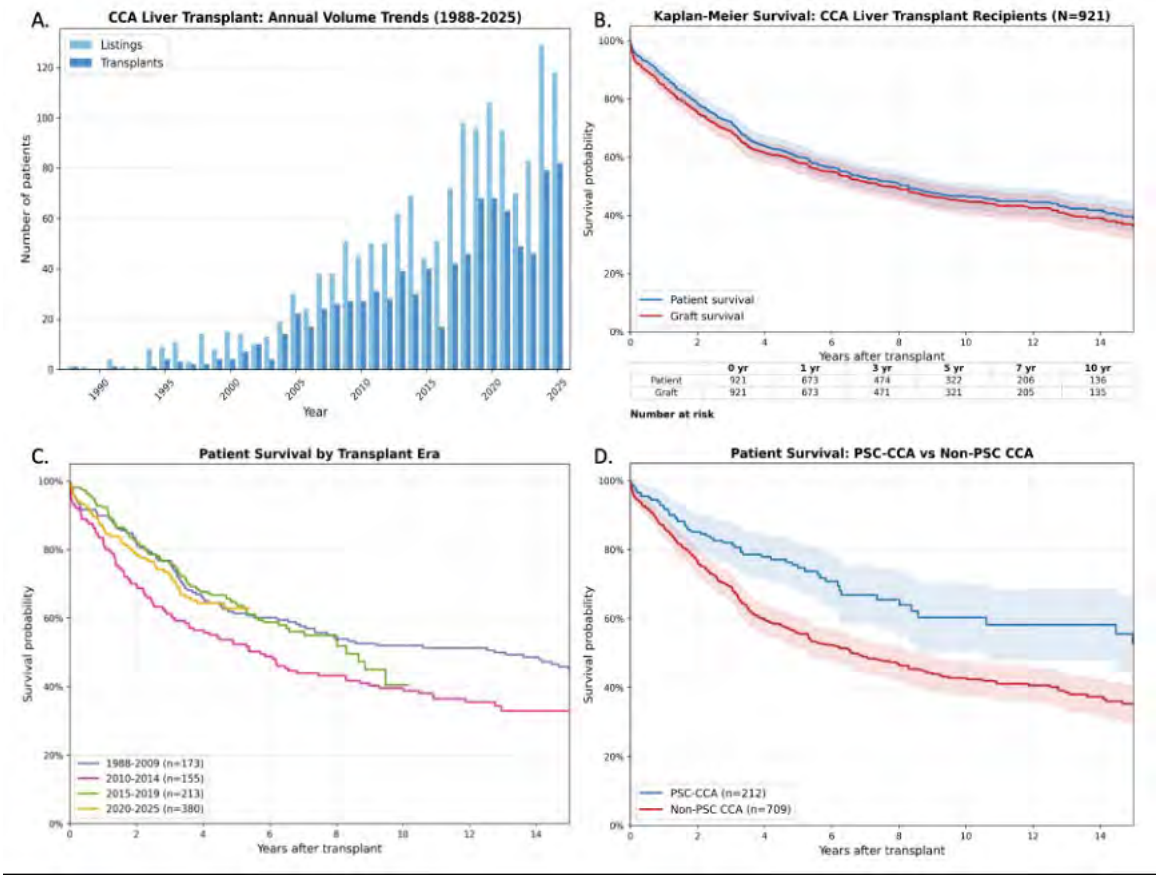
S Campbell, O Ahmed, D Cullinan, N Vachharajani, W Chapman, MBM Doyle
Presenter: Sally Campbell MD | Washington University in Saint Louis

Background: Cholangiocarcinoma (CCA) was historically considered a contraindication to liver transplantation (LT) but evolving neoadjuvant protocols particularly for perihilar CCA arising in primary sclerosing cholangitis (PSC) and the 2010 introduction of standardized MELD exception points have driven rapid national expansion. We present the largest and most comprehensive analysis of the United States experience using the national OPTN/UNOS STAR database.

Methods: All patients listed with a primary diagnosis of cholangiocarcinoma (DGN_TCR 4403) or bile duct cancer (4420) were identified from October 1987 through the end of 2025. Patient and graft survival were estimated by Kaplan-Meier methods and compared by log-rank test. Competing waitlist outcomes were estimated using Aalen-Johansen cumulative incidence functions. Multivariable Cox regression identified independent predictors of post-transplant mortality. Subgroup analyses examined PSC status, donor type, center volume, transplant era, and OPTN region.

Results: Of 1,551 listed patients, 928 underwent LT and 623 remained on the waitlist. By two years from listing, approximately 63% had been transplanted and 33% had died or become too ill to transplant, most within the first 18 months. Recipients were predominantly male (68.9%), with median age 55 years and median MELD 10 at transplant. Among 921 recipients with follow-up (380 deaths; median follow-up 3.1 years), overall 1-, 3-, 5-, and 10-year survival was 88.1%, 72.1%, 60.1%, and 46.6%. Patients with concurrent PSC had superior 5-year survival (74.7% vs. 55.8%, p< 0.001), a difference that persisted after multivariable adjustment. High-volume centers achieved better 5-year survival than low-volume centers (63.7% vs. 50.0%, p=0.02), a gradient that narrowed but persisted among non-PSC patients. Five-year survival was lowest in the 2010–2014 era (52.0%), the only period independently associated with worse survival (HR 1.73, p=0.001), and recovered to 64.0% in 2015–2019, consistent with an early learning curve following broader adoption of neoadjuvant protocols. On multivariable analysis, older age (HR 1.24 per SD, p< 0.001) and a bile duct cancer diagnosis code (HR 1.50, p=0.007) independently predicted mortality, whereas donor type, initial MELD, donor age, and cold ischemia time did not. Living and deceased donor recipients had equivalent 5-year survival (60.0% vs. 60.1%, p=0.69). The cumulative incidence of post-transplant recurrence was 21.7% at 5 years (competing-risks), and recurrence was the leading cause of death (43.9% of deaths), with 70% occurring within two years (median 1.5 years). Annual transplant volume increased more than twenty-fold, exceeding 80 cases by 2024.

Conclusion: LT for CCA achieves acceptable long-term survival nationally, with excellent outcomes in the PSC-CCA subgroup and at high-volume centers, sustained despite a greater than twenty-fold rise in volume that indicates preserved selection rigor. Malignancy recurrence remains the dominant cause of death and is concentrated early, defining a clear window for intensive surveillance. These findings support the continued, centralized expansion of LT for carefully selected patients with cholangiocarcinoma.


A.
CCA Liver Transplant: Annual Volume Trends (1988-2025)
Listings
Transplants
Number of patients
Year
B.
Kaplan-Meier Survival: CCA Liver Transplant Recipients (N=921)
Survival probability
Patient survival
Graft survival
Years after transplant
0 yr 1 yr 3 yr 5 yr 7 yr 10 yr
Patient 921 673 474 322 206 136
Graft 921 673 471 321 205 135
Number at risk
C.
Patient Survival by Transplant Era
Survival probability
1988-2009 (n=173)
2010-2014 (n=155)
2015-2019 (n=213)
2020-2025 (n=380)
Years after transplant
D.
Patient Survival: PSC-CCA vs Non-PSC CCA
Survival probability
PSC-CCA (n=212)
Non-PSC CCA (n=709)
Years after transplant

20. CONTEMPORARY LIVER TRANSPLANTATION IN SEPTUAGENARIANS: A LARGE SINGLE-CENTER ANALYSIS IN A HIGH ACUITY COHORT

R Conrey, R Ma, S Xu, S Ebaid, V Agopian, DG Farmer, FM Kaldas
Presenter: Reghan Conrey MD | University of California, Los Angeles

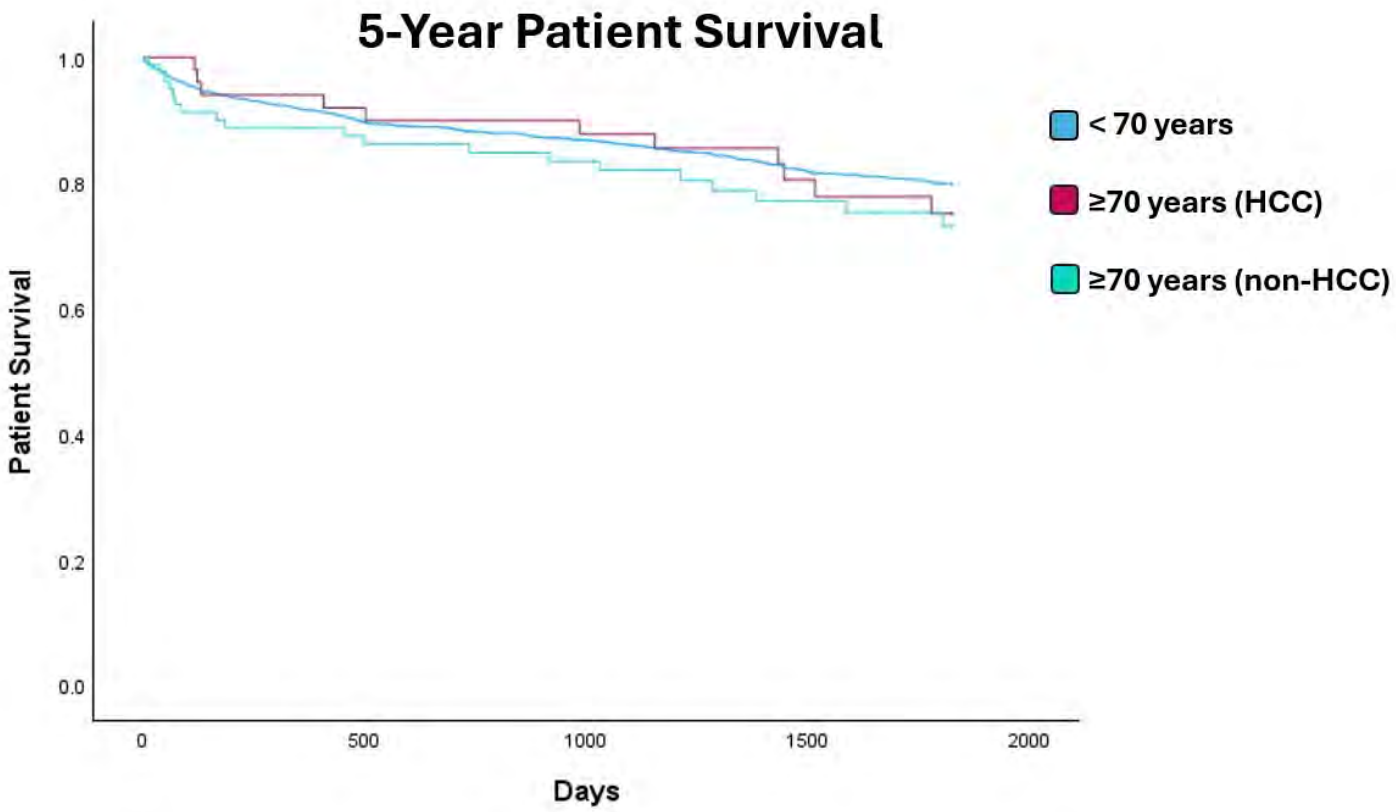
Background: Liver transplantation (LT) is life-saving for patients with end-stage liver disease. As age and acuity of LT recipients continue to increase, organ stewardship necessitates examination of outcomes in the elderly recipient, particularly high-acuity patients aged ≥70 years. We evaluated our experience with septuagenarians undergoing LT in the modern era.

Methods: A retrospective analysis of 1,982 LTs (January 2012-December 2024) was conducted using a prospectively collected database. Adults undergoing primary LT or simultaneous liver-kidney transplantation were included and stratified by age: ≥70 years and < 70 years. Patients aged ≥70 were further divided into those undergoing LT for HCC (HCC) vs. all other indications (non-HCC).

Results: Of 1,814 patients, 130 (7.2%) were aged ≥70 years while 1,684 (92.8%) were < 70 years. Median age was 72 vs. 56 years. Despite having more co-morbidities: hypertension (60.0% vs. 42.6%, p< 0.001), diabetes (44.6% vs. 32.7%, p=0.01), and coronary artery disease (29.2% vs. 14.2%, p< 0.001), septuagenarians had lower median MELD scores (31 vs. 34, p< 0.001) and trended toward a decreased requirement for pre-LT ICU care (37.7% vs. 45.1%, p=0.119). Intra-operative complexity was comparable between the ≥70 and < 70 groups. Transfusion requirements, use of arterial conduits, and need for intra-abdominal packing with delayed biliary reconstruction were similar between cohorts; however, more patients in the ≥70 group required veno-venous bypass (37.7% vs. 28.2%, p=0.03). Postoperative length of stay (LOS) was similar between the ≥70 and < 70 group (26 vs. 24 days, p=0.58), although septuagenarians were more likely to be discharged to secondary facilities (39.2% vs. 28.5%, p=0.01). One, three, and five-year patient survival was comparable between the ≥70 and < 70 cohorts (90.8% vs. 91.7%, p=0.71; 84.6% vs. 86.6%, p=0.57; 76.9% vs 82.2%, p=0.191).

Within the ≥70 cohort, 50 (38.5%) underwent LT for HCC, while 80 (61.5%) underwent LT for other indications. Non-HCC recipients demonstrated higher acuity with higher MELD scores (35 vs. 11, p< 0.001), increased requirements for pre-LT ICU care (53.8% vs. 12.0%, p< 0.001), ventilation (20.0% vs. 4.0%, p=0.02), vasopressors (33.8% vs. 10.0%, p=0.003), and renal replacement therapy (63.8% vs. 12.0%, p< 0.001). Non-HCC recipients were more intra-operatively complex with increased blood transfusion requirements (2.0L vs. 3.8L, p=0.002) and trends toward increased requirement for veno-venous bypass (43.8% vs. 28.0%, p=0.09) and rates of intra-abdominal packing (23.8% vs. 14.0%, p=0.13). Non-HCC patients required longer post-operative LOS (33 vs. 17 days, p< 0.001) and were more frequently discharged to secondary facilities (52.5% vs. 18.0%, p< 0.001). Despite their high acuity, non-HCC septuagenarians demonstrated comparable 1, 3, and 5-year survival to HCC septuagenarians (88.8% vs. 94.0%, p=0.30; 82.5% vs. 88.0%, p=0.37; 76.3% vs. 78.0%, p=0.64). Similarly, the high-acuity non-HCC septuagenarians exhibited comparable 1, 3, and 5-year survival to patients < 70 years (88.8% vs. 91.7%, p=0.34; 82.5% vs. 86.6%, p=0.30; 76.3% vs. 82.2%, p=0.19).

Conclusion: This is a large, single-center cohort of septuagenarians undergoing LT including high-acuity patients aged ≥70 years. The results emphasize that with careful recipient selection, high-acuity septuagenarians undergoing LT can achieve equivalent long-term outcomes to younger recipients in the modern era.


5-Year Patient Survival
Patient Survival
1.0
0.8
0.6
0.4
0.2
0.0
0
500
1000
1500
2000
Days
< 70 years
≥70 years (HCC)
≥70 years (non-HCC)

21. THE ELPHANT IN THE ROOM: THE NEGATIVE IMPACT ON KIDNEY TRANSPLANT RECPIENTS WHEN NORMOTHERMIC REGIONAL PERFUSION IS NOT UTILIZED IN DONATION AFTER CIRCULATORY DEATH DONORS

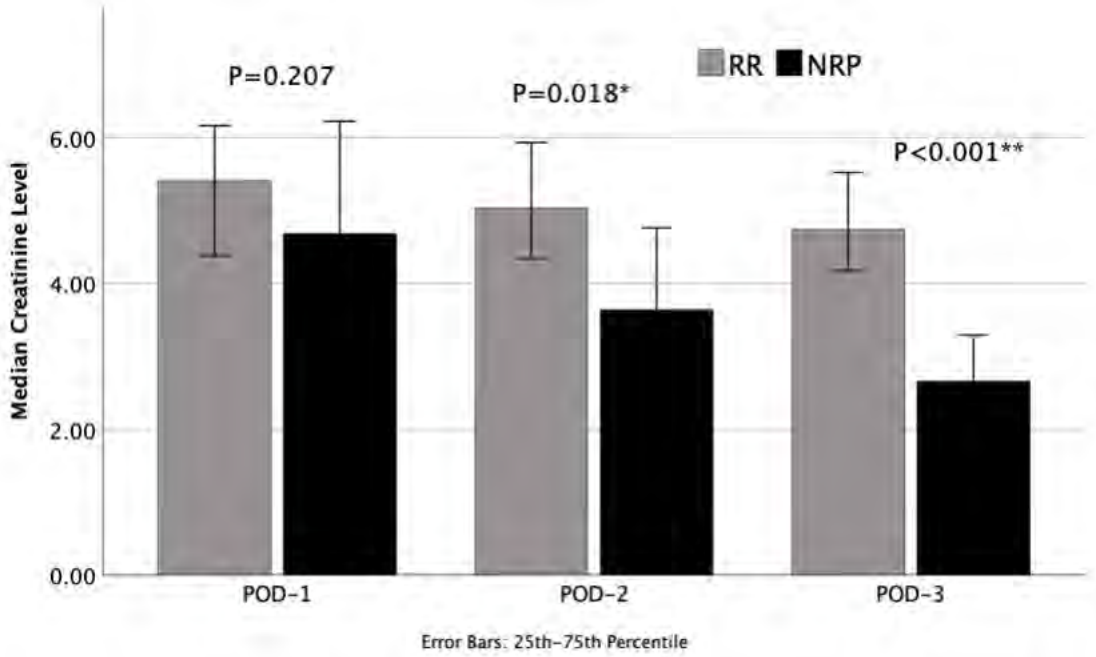
H Moore, D Kuehler, T Collins, E Stites, A Wisemen, M Quist, M Eckles, E Moore, K Wipperling, S Davis
Presenter: Hunter Moore MD PhD | AdventHealth Transplant Institution at Porter Hospital

Background: Donation after circulatory death (DCD) is increasing in frequency and represents half of organ donors. Kidneys have the lowest priority in the decision for organ procurement modality. The two main procurement techniques are in situ normothermic regional perfusion (NRP) versus rapid recovery (RR). Despite NRP being a single modality to resuscitate all transplantable organs in the most cost-effective matter, RR with subsequent machine perfusion has increased in prevalence. The reasons for choosing RR over NRP are multifactorial and evolving, however the consequences of these decisions have not been evaluated in kidney recipients in the United States. This is particularly applicable to transplant centers that have higher volume kidney transplants relative to other organs. We hypothesize that RR kidney recipients from DCD donors will have higher rates of delayed graft function (DGF) and higher rates of morbidity compared to NRP kidney recipients.

Methods: DCD kidneys were identified as a high risk for graft loss in our program and subsequently initiated a quality improvement project to monitor outcomes in DCD kidney donors. Prospective data on all DCD donor recipients was started in January of 2024. This included recipient and donor demographics, with recipient outcomes for the first 90 days following transplant. The primary outcome of interest was DGF defined as the need for dialysis within 7-days of transplant in addition to how NRP was associated with other postoperative complications and perioperative care.

Results: There were 90-kidney recipients included in the analysis. The median age was 66 ranging from 26-87 years old. NRP was utilized in 51% of donors. When NRP was not utilize the reasons were machine perfusion of other organs 66% and 33% due to organ procurement organization defining donor as kidney only. Contrasting NRP to RR donors there were no differences in recipient ages, co morbidities, or donor risk factors for DGF (age, KDPI, hypertension, diabetes, terminal and peak creatinine, warm ischemia, cold ischemia). DGF rates were 55% in RR vs 14% in NRP (P< 0.001). When controlling risk factors RR had an odds ratio of 6.1 for DGF (95%CI 2.0 – 18.8 p=0.002) compared to NRP. RR kidney recipients had significantly longer lengths of stay 6 (5-11) vs 5 (4-6) days (P=0.002), fewer patients were ambulating by POD 3 (86% vs 96% P=0.050) and more frequently had their foleys in placed for longer than three days (73% vs 50% P=0.050). Postoperative cardiac complications were higher in RR kidneys (9.5% vs 0% P=0.050) with more graft loss (4% vs 0%) at 90 days. NRP kidneys perfused less than 60 minutes had a 50% rate of DGF versus 10% with longer perfusion (p=0.032).

Conclusion: RR kidneys have a 6-fold risk of DGF compared to NRP DCD kidney recipients with longer lengths of stay, decreased mobility following surgery, and higher rate of cardiac complications. The decision and duration of NRP for donors in the context of the kidney recipient has not been implanted into organ procurement organizations and has the potential to improve outcomes.


RR
NRP
P=0.207
P=0.018*
P<0.001**
Median Creatinine Level
6.00
4.00
2.00
0.00
POD-1
POD-2
POD-3
Error Bars: 25th-75th Percentile

22. AFTER THE RESCUE: TWELVE-MONTH OUTCOMES FROM THE RESTORE TRIAL OF NORMOTHERMIC MACHINE PERFUSION FOR DECLINED LIVER A NON-RANDOMIZED CLINICAL TRIAL

F Olumba, O Alomar, F Zhou, A Khan, D Cullinan, J Wellen, P Friend, Y Park, M Doyle, W. Chapman
Presenter: Omar Alomar MD, MSCI | Washington University in Saint Louis

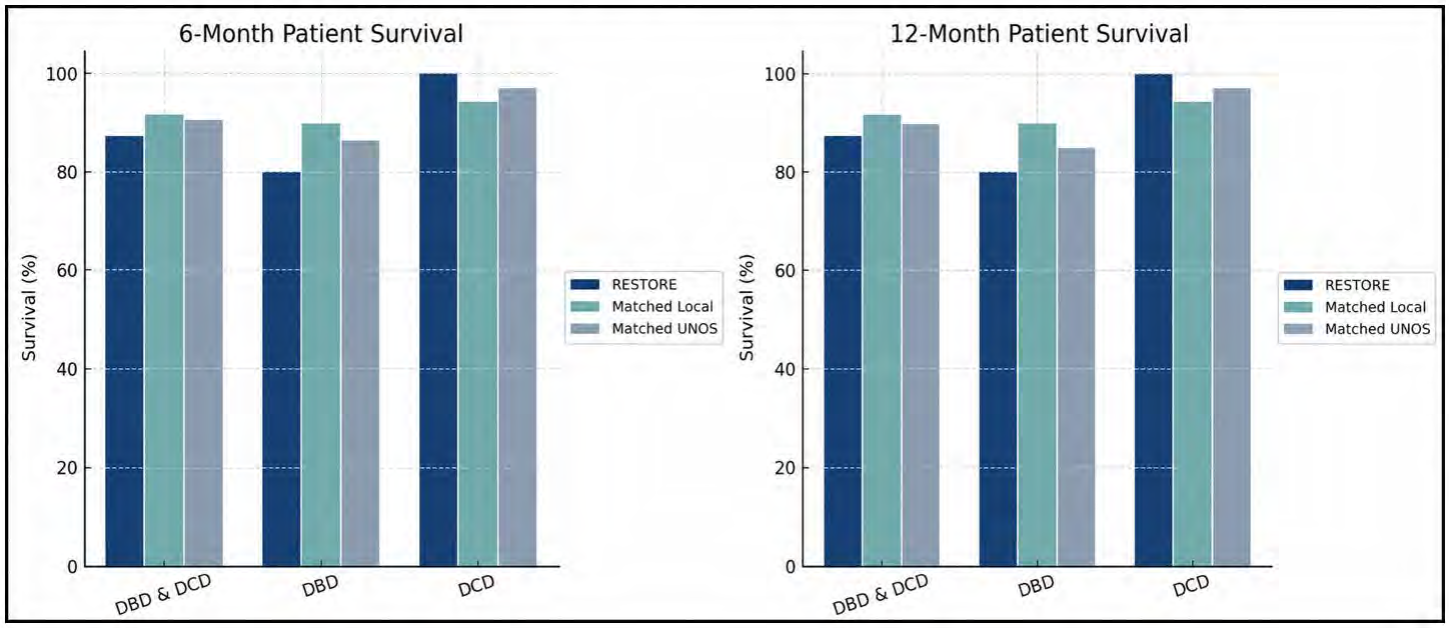
Background: Discarded donor livers represent a substantial untapped graft pool. The RESTORE Trial (NCT04483102) evaluated normothermic machine perfusion (NMP) with novel viability criteria as a strategy to safely assess and transplant declined livers. An interim analysis was previously reported; here we present the final results.

Methods: Prospective, single-center, non-randomized FDA IDE trial (N&#3f24). Declined DBD and DCD livers were screened and perfused with NMP (OrganOx Metra) for ≥4 h. Viability required perfusate lactate ≤2.2 mmol/L with adequate arterial (≥100 mL/min) and portal (≥500 mL/min) flows plus ≥2 secondary criteria: bile production, stable pH, glucose uptake, ALT ≤7,000 U/L and/or AST < 10,000 U/L. Recipients were consented before transplant and remained eligible for standard offers. Primary endpoint: 6-month graft and patient survival. Secondary endpoints: rescue rate, early allograft dysfunction (EAD), primary non-function (PNF), 12-month graft and patient survival, biliary complications, ICU/hospital length of stay (LOS), and Quality-of-Life (QoL) scores at admission and 3 and 6 months after surgery.

Results: Between 2020-2025, 80 declined livers were offered; 35 met screening criteria and underwent NMP. Of those, 24 [9 DCD (37.5%), 15 DBD (62.5%)] met viability criteria and were transplanted, yielding a rescue rate of 70.6%. Most (n=17; 71%) were declined for graft-quality (steatosis, advanced age, high-risk donor history), followed by rapid recovery (n=5; 21%), prolonged warm ischemia time or logistics (n=1, each). Median cold ischemia time: 6.1 h [4.4-7.5]; median NMP time was 10.7 h [6.3-14.2]. Recipients were older (median 63 yr [39-72]) with low MELD scores (median 8 [6-14]); 18 were transplanted for malignancy (HCC, cholangiocarcinoma, colorectal liver metastases). Six-month graft and patient survival were both 87.5% (21/24). 12-month patient and graft survivals were 87.5% and 83.3%, respectively. Three deaths (all DBD recipients) were unrelated to graft or surgical factors: 1) superior mesenteric artery occlusion with bowel infarction; 2) traumatic intracranial hemorrhage; 3) H1N1 infection complicated by septic shock. No PNF or ischemic-type biliary stricture occurred. EAD rate was 33% (8/24), all resolved within 48h with no correlation to graft loss or biliary complications. Median ICU/hospital LOS were 2 and 7 days. 6- and 12-month survival was comparable to both local and UNOS-matched cohorts. Extended NMP allowed safe daytime OR scheduling. QoL assessments were completed by 23 of 24 transplanted recipients at admission (96%) and by 21 at months 3 and 6 post-transplant (88%). Mean overall QoL scores remained stable at 80.7, 80.9, and 78.5 (out of 100), respectively. Most domains: mobility, self-care, usual activities, and anxiety/depression were stable, although pain/discomfort was the most frequent reported limitation, increasing from 52% at admission to 76% at month 6.

Conclusion: The RESTORE trial demonstrates that NMP can reliably identify viable grafts among previously declined livers, achieving high rescue rate, excellent survival, and no PNF. This strategy expands access for lower-MELD recipients who may die waiting, while enabling flexible, daytime surgery. Although EAD incidence was slightly higher than in standard grafts, it did not affect outcomes, supporting recalibration of expectations for high-risk organs in the era of machine perfusion.

Figure. Six- and Twelve-Month Patient Survival Following Transplantation in the RESTORE Trial Compared with Matched Cohorts locally and nationally (UNOS).



23. COMBINED BASELINE AND DYNAMIC IMMUNONUTRITIONAL SUPPRESION LEADS TO REDUCED OVERALL SURVIVAL IN PULMONARY LOBECTOMY PATIENTS

A Bedard, E Wong, J Garrett, C Moodie, D De La Cruz, M Thayil, L Power, J Tew, J Baldonado, J Fontaine, S Freyaldenhoven, E Toloza

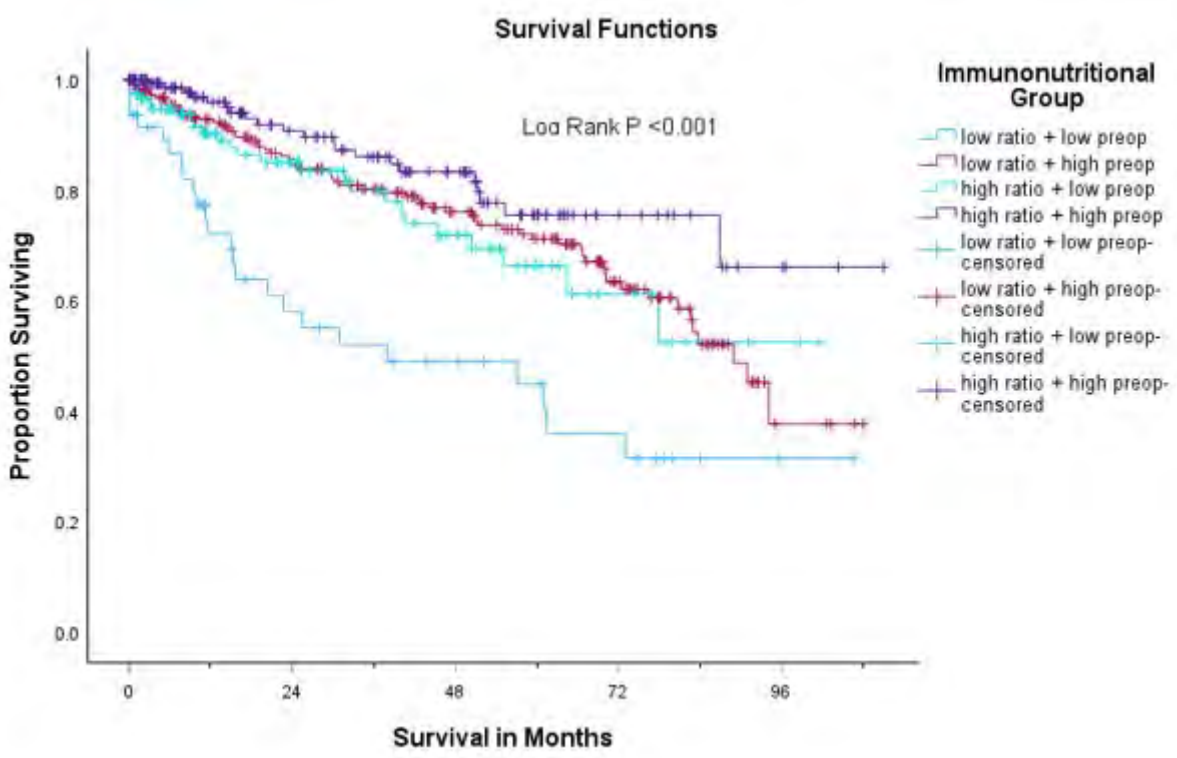
Presenter: Andrew Bedard BS | University of South Florida Morsani College of Medicine

Background: Immune and nutritional function have been increasingly recognized as determinants of outcomes in surgical oncology. Prognostic Nutritional Index (PNI) functions as a measure of immune and nutritional status and has been investigated as a preoperative marker of frailty. This study seeks to evaluate the individual change in PNI from prior to and after surgery measured by PNI ratio while accounting for baseline status with preoperative PNI.

Methods: We retrospectively analyzed patients who underwent robotic-assisted video-thoracoscopic (RAVTS) lobectomy from 2010-2025 by one surgeon. Preoperative and Immediate Postoperative PNI were calculated using the following equation: PNI = (10 x albumin (g/dL)) + (0.005 x total lymphocyte count/mm3), and PNI Ratio was calculated as: PNI ratio = immediate postoperative PNI/preoperative PNI. Low Preoperative PNI was defined based on literature (PNI< 50), and Low PNI Ratio was defined based on the median cohort value (PNI ratio< 0.82). Patients were stratified into a High-Risk (HR) phenotype based on both Low Preoperative PNI and Low PNI Ratio (n=47), baseline Moderate-Risk based on Low Preoperative PNI and High PNI Ratio (n=118), surgical Moderate-Risk based on Normal Preoperative PNI and Low PNI Ratio (n=231), and Low-Risk (LR) based on Normal Preoperative PNI and High PNI Ratio (n=161). Primary outcomes assessed were pneumonia, 90-day mortality, and Kaplan-Meier overall survival (OS). Standard statistical analyses were performed using SPSS v30 (IBM), with significance at p≤0.05.

Results: Of 859 total patients, 557 evaluable patients (mean age 69.1 years; mean body mass index [BMI] 27.9 kg/m2; mean PNI ratio 0.82; mean Preoperative PNI 53.1) were included. Patients in the HR group were correlated with increased age (72.8 vs. 69.1, p=0.002), lower BMI (25.1 vs. 27.9; p=0.001), and chronic anemia (19 (40.4%) vs. 120 (21.5%). The HR group was associated with increased rates of squamous cell carcinoma (12 (25.5%) vs. 95 (17.1%)), other primary lung tumors (5 (10.6%) vs. 29 (5.2%), p=0.022), and increased median pathologic tumor size (3.5 cm [2.2-6.0] vs. 2.7 cm [1.9-4.0]; p=0.006). The HR group was also associated with presence of pleural adhesions (32 (71.1%) vs. 274 (53.2%); p=0.037), intraoperative estimated blood loss (150 mL [50-300] vs. 100 mL [50-150]; p< 0.001), intraoperative transfusion (5 (10.6%) vs. 19 (3.5%); p=0.002), and increased skin-to-skin operative duration (180 min [162–222] vs. 174 min [144–206]; p=0.002). On multivariable regression, the HR group (Low Preoperative PNI and Low PNI Ratio) was associated with increased risk for pneumonia (OR=3.539, 95%CI=1.355-9.245; p=0.01), but not for 90-day mortality (OR=2.924, 95%CI=0.837-10.211; p=0.093). On Kaplan-Meier OS analysis, the HR group was associated with reduced median OS time (38.0 months [95%CI=0-88.054] vs. 91.0 months [95%CI not estimable]) and reduced 5-year OS (44.9% vs. 71.5%) (p< 0.001) compared to the Low- and Moderate-Risk groups combined.

Conclusion: Baseline and dynamic immune-nutritional status contribute to outcomes in patients undergoing pulmonary lobectomy. High-Risk patients, defined by Low Preoperative PNI and Low PNI Ratio, are associated with increased rates of postoperative infectious outcomes and reduced long-term OS. Therefore, both baseline and immunonutritional shift mediated by surgery can lead to compounded risk for complications and long-term survivability.


Survival Functions
Log Rank P <0.001
Immunonutritional Group
low ratio + low preop
low ratio + high preop
high ratio + low preop
high ratio + high preop
low ratio + low preop-censored
low ratio + high preop-censored
high ratio + low preop-censored
high ratio + high preop-censored
Proportion Surviving
1.0
0.8
0.6
0.4
0.2
0.0
0
24
48
72
96
Survival in Months

24. PREOPERATIVE PERIHEPATIC TUMOR BURDEN PREDICTS CYTOREDUCTIVE SURGERY COMPLEXITY AND RECURRENCE FOLLOWING CRS-HIPEC FOR PSEUDOMYXOMA PERITONEI

V Bansal, S Ghaffar, B Mungo, A Gleisner, M Markese, S Ahrendt
Presenter: Varun Bansal MBBS | University of Colorado School of Medicine

Background: Pseudomyxoma peritonei (PMP) is a rare disease, for which cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) is the mainstay treatment. Preoperative multidetector computed tomography (MDCT) is routinely used to assess disease extent, but objective imaging markers that predict operative and oncologic outcomes remain limited. We evaluated the association between a validated perihepatic radiologic score (RS), disease burden, operative outcomes, and survival following CRS-HIPEC.

Methods: A retrospective review of a prospectively maintained institutional database identified consecutive patients undergoing CRS-HIPEC for PMP between January 2019 and March 2023. Perihepatic tumor burden was quantified using a previously described RS (Bouquot et al. 2018) derived from five predefined MDCT measurements (D1–D5; Figure 1). Net RS was calculated as the sum of the five regional scores. Receiver operating characteristic analysis identified the optimal RS threshold for predicting incomplete cytoreduction. Associations between RS and operative outcomes were assessed. Correlation between RS and Peritoneal Carcinomatosis Index (PCI) was evaluated using Spearman rank correlation, and regional RS–PCI associations were visualized using a heat map. Overall survival (OS) and recurrence-free survival (RFS) were analyzed using Kaplan–Meier and Cox proportional hazards methods.

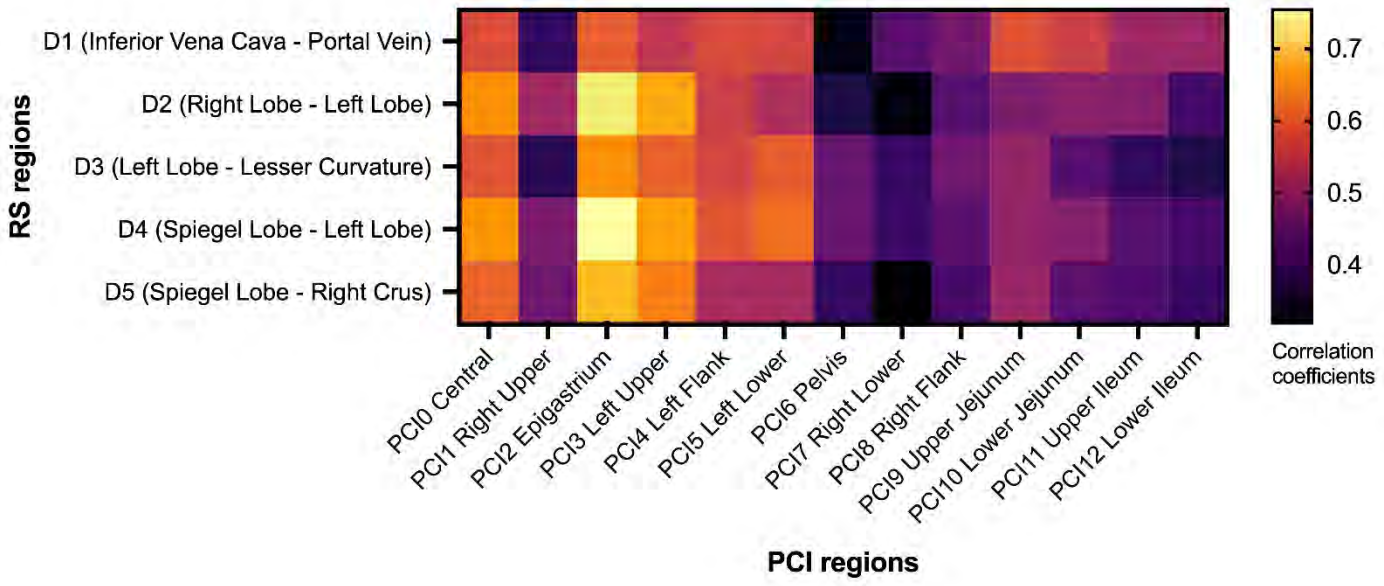
Results: A total of 108 patients were included: median age was 63.4 years (IQR 53.6–70.2), 54 (50%) were male, and 53 (49%), 33 (31%), and 22 (20%) had grade 1, 2, and 3 disease, respectively. Complete cytoreduction (CC0/1) was achieved in 98 (90.8%) patients. An RS threshold of 26 optimally predicted incomplete cytoreduction with 100% sensitivity and 81.6% specificity; 28 patients had high RS (>26) and 80 had low RS (≤26).

Compared with low RS, high RS was associated with greater tumor burden (PCI 34.5 [30.0–39.0] vs 19.0 [13.0–24.0], p< 0.001), longer operative duration (817.5 [687.3–895.8] vs 523.5 [429.5–644.8] minutes, p< 0.001), higher estimated blood loss (1300 [900–1500] vs 300 [200–500] mL, p< 0.001), and longer hospital stay (15 [11–24] vs 10 [7–15] days, p< 0.001). Net RS strongly correlated with PCI (Spearman ρ=0.69, p< 0.001). Heat map analysis demonstrated significant correlations between all perihepatic and PCI regions, with the strongest relationships observed in the upper abdomen and the weakest correlations noted with lower abdominal and small bowel PCI regions.

Among 102 patients eligible for OS analysis and 94 undergoing complete CRS included in the RFS analysis, high RS was associated with reduced RFS (median 13.1 months [95% CI 9.8–17.1] vs not reached, p=0.006) and remained independently predictive of recurrence (HR 4.2, 95% CI 1.9–9.5, p=0.002). High RS was not associated with OS (median 67.3 months [95% CI 26.1–108.5] vs not reached, p=0.178) and was not an independent predictor of mortality (HR 0.4, 95% CI 0.1–1.5, p=0.18).

Conclusion: Preoperative perihepatic tumor burden strongly correlates with intraoperative disease burden and identifies patients at increased risk of complex CRS, incomplete cytoreduction, and recurrence following CRS-HIPEC for PMP. RS may serve as a practical imaging biomarker for operative planning and risk stratification. Despite these associations, long-term overall survival remains achievable in appropriately selected patients, even with extensive disease.

Figure 1: Heat map demonstrating correlations between tumor burden measured in individual radiologic score (RS) regions on preoperative CT scans (D1-D5) with intraoperative peritoneal carcinomatosis index (PCI) regions (0-12)



25. IS OLD STILL THE GOLD STANDARD? OPEN VERSUS MINIMALLY INVASIVE DRAINAGE OF PANCREATIC PSEUDOCYSTS

SK Bhogadi, AB Abdulkarim, SW Behrman
Presenter: Sai Krishna Bhogadi MD | Baptist Health Sciences University

Background: Endoscopic and minimally invasive approaches for drainage of pancreatic pseudocysts have been increasingly utilized. However, there is limited large scale data on their long-term superiority compared to traditional open surgical drainage. This study aims to evaluate and compare the 6-month outcomes of minimally invasive versus open drainage of pancreatic pseudocysts on a nationwide scale.

Methods: All patients who underwent drainage of pancreatic pseudocysts in the first six months of each year from 2019 – 2021 were identified using the nationwide readmissions database and were followed for the next 6 months. Patients with necrotizing pancreatitis during index admission were excluded. Patients were stratified by method of drainage: endoscopic (E), laparoscopic (L), open (O), and percutaneous (PC). Primary outcomes were readmission with pseudocyst or necrosis and the need for repeat drainage procedures within 6 months of index procedure. Secondary outcome was mortality during index admission and at 6-months. Chi-square and multivariable logistic regression (MLR) analyses were performed.

Results: 2,961 patients were included in the study (E 56.6%, L 11.4%, O 6.7%, PC 25.3%). The mean age was 51 years. All-cause readmission rate was 49.4%. 71.7% of readmissions were due to pseudocyst or necrosis and 8% required repeat drainage procedures within 6 months of index admission. O group had the lowest rates of readmissions due to pseudocyst or necrosis and had the lowest rates of the need for repeat drainage procedures (Table 1a). There were no significant differences in index admission mortality, however PC group had highest mortality at 6 months (Table 1b). On MLR, open drainage was associated with the lowest odds of readmissions (odds ratio [OR] 0.38, 95% confidence interval [CI] 0.24 – 0.62, $p < 0.001$) and need for repeat drainage procedures (OR 0.13, 95% CI 0.03 – 0.66, $p = 0.014$). Compared to those having open drainage, patients having minimally invasive drainage had a higher burden of reintervention due to the need for general anesthesia and therapeutic reintervention in general.

Conclusion: Minimally invasive drainage has become the predominant approach for pancreatic pseudocysts; however, they are responsible for majority of readmissions for pseudocyst recurrence, and higher burden of repeat drainage procedures due to the need for general anesthesia. Although less frequently performed, open drainage is associated with 60% reduction in readmissions and 87% reduction in need for repeat drainage procedures. These findings revisit the value of open approach as an important armamentarium for surgeons in the management of pancreatic pseudocysts.

Table 1a: Univariate Analysis of Primary Outcomes					
	E	**L**	**O**	**PC**	***p***
6-month Pancreas Related Readmissions	35.9%	31%	17.8%	43.7%	**<0.001**
Pseudocyst	33.8%	29%	15.7%	42.6%	**<0.001**
Uninfected Necrosis	6.4%	5.0%	5.1%	8.3%	0.132
Infected Necrosis	5.4%	4.1%	1.0%	10.2%	**<0.001**
6-month Repeat Therapeutic Intervention	7.2%	5.3%	1.0%	12.7%	**<0.001**
Endoscopic	6.4%	2.9%	0%	4.3%	**<0.001**
Laparoscopic	0.6%	0.3%	0%	0.4%	0.618
Open	0.7%	0.3%	0%	1.5%	0.057
Percutaneous	0.4%	1.5%	1.0%	7.9%	**<0.001**
Table 1b: Univariate Analysis of Secondary Outcome					
Mortality	**E**	**L**	**O**	**PC**	***p***
Index Admission	1.7%	1.5%	2.0%	2.8%	0.267
At 6-months	1.4%	0.3%	1.5%	2.8%	**0.015**

E = endoscopic; O = open; L = laparoscopic; PC = percutaneous; p = p-value;

For repeat therapeutic intervention type, percentage corresponds to proportion of that column

26. LATENT CLASS ANALYSIS IDENTIFIES FOUR PROGNOSTICALLY DISTINCT COMPLICATION PHENOTYPES AFTER PANCREATICODUODENECTOMY

Muhammad Bilal Mirza, Aysenur uludag, Muhammad Haris Khurshid, Mohammad R. Khreiss, Taylor S. Riall, Hassan Aziz, Faisal S. Jehan.
Presenter: Muhammad Mirza MD | University of Arizona

Background: Postoperative complications after pancreaticoduodenectomy (PD) are conventionally analyzed as isolated events, a practice that obscures their tendency to co-occur in biologically and prognostically coherent patterns. Using latent class analysis (LCA) in a large, contemporary, nationally representative cohort, we sought to resolve these complications into discrete phenotypes, each with distinct preoperative predictors and mortality signatures, and to test the failure-to-rescue principle that a high-morbidity but rescuable phenotype carries mortality comparable to that of patients without postoperative complications.

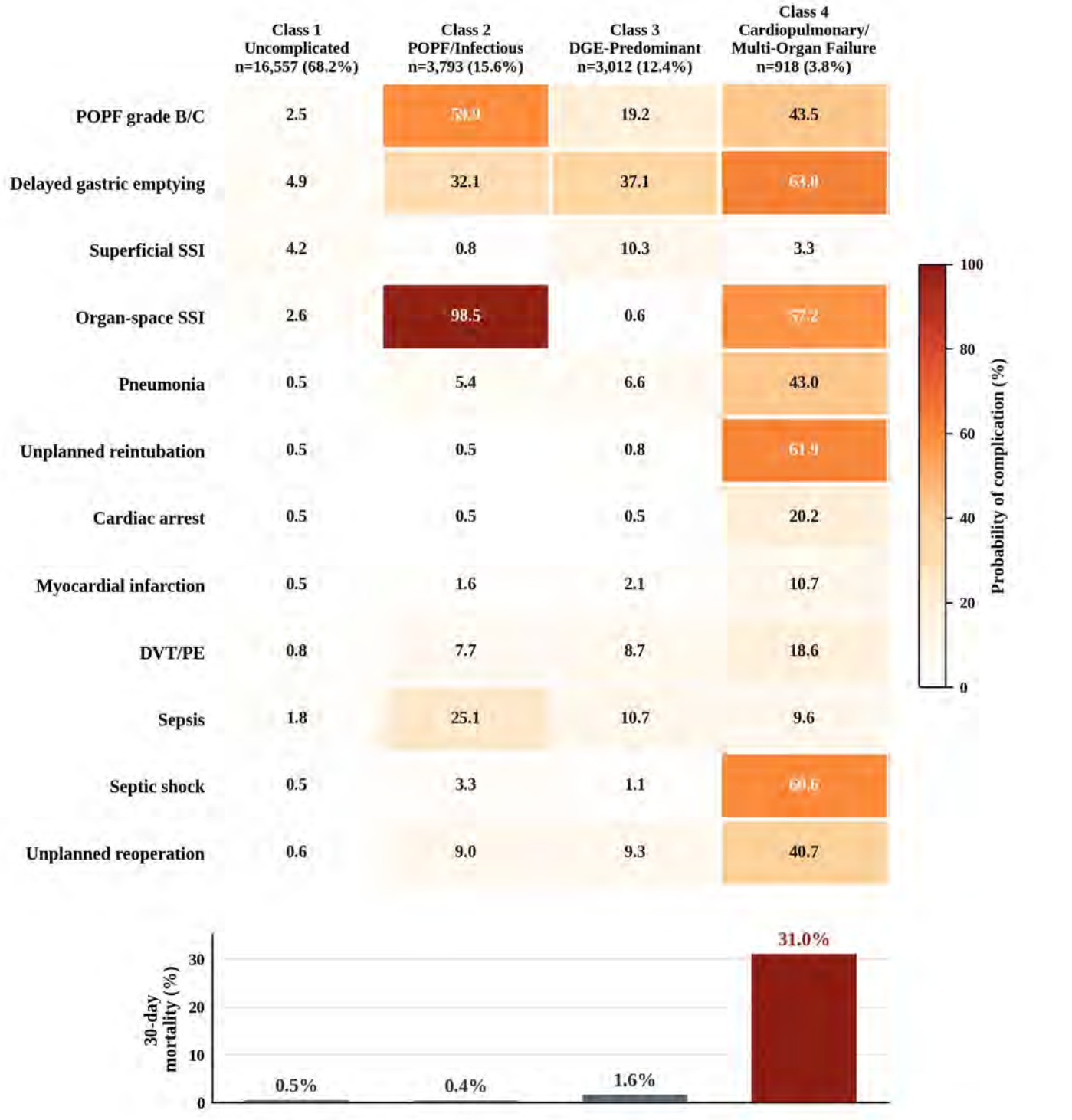
Methods: We performed a retrospective cohort study of the ACS-NSQIP Pancreatectomy PUF (2020–2024), including all patients who underwent PD. LCA was fit to 12 binary 30-day complication indicators: POPF grade B/C, DGE grade B/C, superficial and organ-space SSI, pneumonia, unplanned reintubation, cardiac arrest, myocardial infarction, DVT/PE, sepsis, septic shock, and unplanned reoperation. Class number was chosen by Bayesian Information Criterion, entropy, and clinical interpretability, with item-response probabilities estimated by expectation-maximization (20 random starts per K). Multivariable logistic regression adjusted for 30-day mortality, adjusting for age, ASA class, albumin, soft gland texture, and small duct diameter, with the uncomplicated class as reference.

Results: Among 24,280 patients undergoing PD (mean age 65.6 ± 11.3 years; 53.2% male; 84.6% ASA III/IV), four distinct complication phenotypes were identified. Class 1: Uncomplicated (n=16,557; 68.2%) had uniformly low complication probabilities across all 12 domains. Class 2: POPF/Infectious (n=3,793; 15.6%) was defined by organ-space SSI (98.5%), CR-POPF grade B/C (59.9%), and sepsis (25.1%), with the highest 30-day readmission rate (46.9%) and a median LOS of 11 days. Class 3: DGE-Predominant (n=3,012; 12.4%) was characterized by DGE (37.1%) and POPF (19.2%), with a 29.7% readmission rate and a median LOS of 12 days. Class 4: Cardiopulmonary/Multi-Organ Failure (n=918; 3.8%) was defined by unplanned reintubation (61.9%), septic shock (60.6%), organ-space SSI (57.2%), pneumonia (43.0%), and reoperation (40.7%). 30-day mortality varied widely by complication phenotype, 0.5% (Class 1), 0.4% (Class 2), 1.6% (Class 3), 31.0% (Class 4), and was independent of overall morbidity burden (Figure 1). On multivariable analysis, Class 4 carried 82-fold higher adjusted odds of 30-day mortality than Class 1 (OR 82.53, 95% CI 63.80–106.77; p< 0.001), and Class 3 nearly three-fold (OR 2.91, 95% CI 2.03–4.16; p< 0.001). Class 2, despite the highest morbidity burden of any phenotype, was not associated with increased mortality (OR 0.71, 95% CI 0.40–1.26; p=0.240). Soft pancreatic gland texture was the strongest preoperative predictor of Class 2 phenotype (66.4% vs. 41.5% in Class 1; p< 0.001). Overall, 30-day mortality was 1.8%, and median LOS was 7 days (IQR 6–11).

Conclusion: Latent class analysis identifies four clinically meaningful, prognostically distinct complication phenotypes. Class 4 (Cardiopulmonary/Multi-Organ Failure) affects only 3.8% of patients but carries an 82-fold adjusted mortality risk. These patients warrant the highest-acuity rescue capacity and earliest possible identification. In contrast, Class 2 (POPF/Infectious), the most frequent and resource-intensive pattern, carried adjusted mortality comparable to that of uncomplicated patients (Class 1), consistent with a highly rescuable phenotype when managed in experienced centers. These findings support a phenotype-based framework for risk stratification, postoperative surveillance, and failure-to-rescue–directed quality improvement after pancreaticoduodenectomy.

Complication Phenotypes After Pancreaticoduodenectomy

Latent class item-response probabilities and 30-day mortality | N=24,280 | 4-class model, entropy 0.735



Cells show the model-estimated probability (%) of each complication within each latent phenotype; bordered cells (≥50%) are class-defining. Bars show crude 30-day mortality by phenotype (modal posterior assignment). The most morbid phenotype (Class 2) carries mortality comparable to the uncomplicated class, whereas Class 4 concentrates mortality.

27. HOSPITAL FINANCIAL IMPLICATIONS OF IMPLEMENTING A ROBOTIC PANCREATODUODENECTOMY PROGRAM

D Cheung, S Yu, N Wasif, R Dholakia, B Borah, P Tan, Y Hu, D Sanford, C Stucky, R Bold, E Habermann, Z Fong.
Presenter: Dillon Cheung MD | Mayo Clinic Arizona

Background: Robotic pancreatoduodenectomy (RPD) has gained more traction compared to open pancreatoduodenectomy (OPD) given the potential benefits such as shorter hospital length of stay (LOS). While RPD is criticized for higher intraoperative costs and equipment expenses, the net impact on cost remains unclear. The objective of this study was to compare overall costs between RPD and OPD and identify primary cost drivers for each approach.

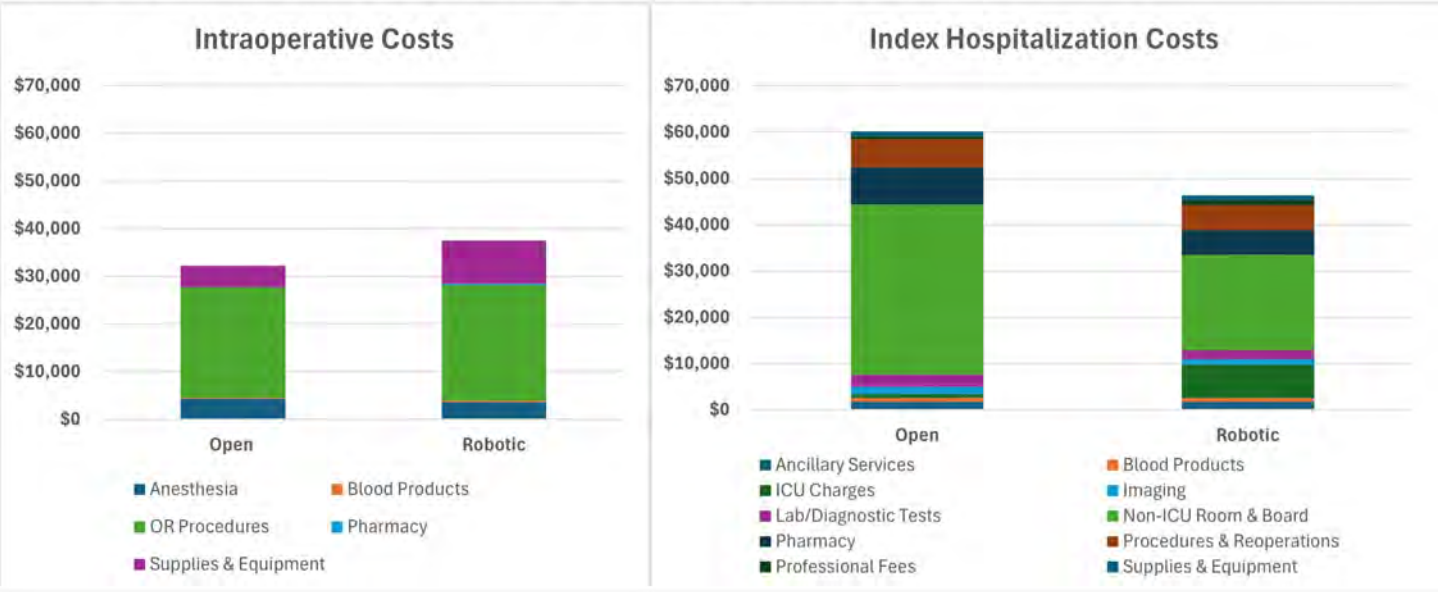
Methods: Patients undergoing pancreatoduodenectomy between 2019 and 2025 at a single center were identified. Hospital cost data were obtained from institutional billing records, standardized by applying Medicare cost-to-charge ratios, and inflation-adjusted to 2025 U.S. dollars. Total hospital costs included all intraoperative costs, index hospitalization costs, and all post-discharge costs incurred up to 30 days postoperatively including readmissions. Comparisons of mean hospital costs were performed primarily between RPD and OPD. A sensitivity analysis was also performed comparing costs of all pancreatoduodenectomy procedures performed before (pre-RPD era) and after (post-RPD era) implementation of the robotic pancreatoduodenectomy program in October 2023. Adjusted mean cost estimates were compared using generalized linear models.

Results: A total of 180 patients were included in the study, of whom 66 (36.7%) underwent RPD. Roughly half (47.2%) of the cohort underwent surgery in the post-RPD era. Intraoperative costs were significantly higher for RPD versus OPD ($37,487 ± $1,042 vs $32,448 ± $678, p=0.01). Index hospitalization costs were lower for RPD versus OPD, although not statistically significant ($46,374 ± $7,924 vs $60,167 ± $8,784, p=0.07). Post-discharge costs did not significantly differ between groups ($8,544 ± $2,488 vs $10,090 ± $7,457, p=0.31). Cumulatively, total hospital cost within 30 days of the index procedure did not significantly differ between RPD and OPD ($91,578 ± $5,132 vs $102,047 ± $7,457, p=0.26). Differences in intraoperative costs between cohorts were driven by equipment and operating room (OR) procedural costs, which include costs for overhead, staffing, and OR time (Figure). Differences in index hospitalization costs between cohorts were mostly driven by room and board costs.

In our sensitivity analysis by time period, intraoperative costs were also significantly higher for the post-RPD versus pre-RPD eras ($36,827 ± $888 vs $31,674 ± $722, p=0.003). Index hospitalization costs were significantly lower for the post-RPD versus pre-RPD eras ($46,032 ± $6,509 vs $63,232 ± $10,355, p=0.02), while post-discharge costs did not significantly differ between eras ($9,582 ± $2,495 vs $9,486 ± $2,320, p=0.18). Similarly, total hospital costs within 30 days of the index procedure did not significantly differ between the post-RPD and pre-RPD eras ($91,783 ± $6,427 vs $103,958 ± $8,020, p=0.18).

Conclusion: The implementation of a RPD program at our institution did not increase overall hospital costs for patients undergoing pancreatoduodenectomy. Higher intraoperative costs associated with RPD compared to OPD were offset with the savings from reductions in hospital LOS.

Figure. Breakdown of cost categories for intraoperative and index hospitalization costs for robotic pancreatoduodenectomy versus open pancreatoduodenectomy. Operating room (OR) procedural costs in the intraoperative category include costs for overhead, staffing, and OR time.



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Deaths & Memorials

At the time of publication, no member deaths had been reported. If you are aware of any members who have passed away since our last meeting, kindly notify WSA Headquarters at wsa@lp-etc.com.

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