



57th
Annual Meeting

August 3-6, 2014

Grand Hotel
Mackinac Island, Michigan

The Midwest Surgical Association gratefully acknowledges the support of the following exhibiting companies.

EXHIBITORS

BK Medical

Castle Biosciences, Inc.

Cook Medical

Covidien, Ltd.

Cubist Pharmaceuticals, Inc.

Ethicon, Inc.

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MIDWEST SURGICAL ASSOCIATION 57th ANNUAL MEETING

Grand Hotel
Mackinac Island, Michigan
August 3–6, 2014

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Officers, Councilors, & Past Presidents

OFFICERS

Raymond P. Onders, MD	President	2013-2014
James Tyburski, MD	President - Elect	2013-2014
William C. Cirocco, MD	Treasurer	2013-2016
Margo C. Shoup, MD	Secretary	2013-2015
Conor Delaney, MD, PhD	Recorder	2013-2014
Steven DeJong, MD	Representative, ACS	2013-2015
Christopher R. McHenry, MD	ACS Advisory Council For Surgery	2013-2016

COUNCILORS

Samir Gupta, MD	Peoria, IL	2013-2016
Elango Edhayan, MD	Detroit, MI	2013-2016
Robert Sticca, MD	Grand Forks, ND	2013-2016
Mary-Margaret Brandt, MD	Ann Arbor, MI	2012-2015
Herb Chen, MD	Madison, WI	2012-2015
Peter Ekeh, MD	Dayton, OH	2012-2015
Lynne Jalovec, MD	Peoria, IL	2012-2014
Michael J. Rosen, MD	Solon, OH	2012-2014
Nicholas Zyromski, MD	Indianapolis, IN	2011-2014

PAST PRESIDENTS

Stephen F. Sener, MD	Pasadena, CA	2013
Richard Berg, MD	Gross Point Farms, MI	2012
Roxie M. Albrecht, MD	Oklahoma City, OK	2011

Committees

LOCAL ARRANGEMENTS COMMITTEE

William Cirocco, MD	Columbus, OH	2014
Constantine Godellas, MD	Maywood, IL	2015

AUDIT COMMITTEE

Jerry Hardacre, MD	Racine, WI	2013-2014
Richard A. Berg, MD	Grosse Pointe Farms, MI	2013-2014

PROGRAM COMMITTEE

Ashwani Rajput, MD	Chair	2013-2015
Katherine, Liu, MD	Advisor	2009-2014
Conor Delaney, MD, PhD	Ex officio	2011-2014
Margo Shoup, MD	Ex officio	2012-2015
Raymond Onders, MD	Ex officio	2013-2014
Jeffrey Bender, MD		2011-2016
Scott Wilhelm, MD		2012-2017
Theodor Asgeirsson, MD		2013-2018

MEMBERSHIP COMMITTEE

Arthur M. Carlin, MD	Chair	2013-2016
Margo Shoup, MD	Ex officio	2012-2015
Raymond Onders, MD	Ex officio	2013-2014
Mary C. McCarthy, MD		2013-2016
Keith Millikan, MD		2013-2016
Rebecca Sippel, MD		2011-2014
Constantine Goodellas, MD		2012-2015
Jeffrey Hardacre, MD		2012-2015

EDITORIAL COMMITTEE

Conor Delaney, MD, PhD	Chair	2011-2014
Michael McGee, MD		2013-2017
Roderich Schwarz, MD, PhD		2013-2017
Christopher Brandt, MD		2011-2015
Samir Gupta, MD		2012-2016
Nicholas Zyromski, MD		2012-2016

Committees continued

NOMINATING COMMITTEE

Stephen Sener, MD	Chair	2014-2018
Richard Berg, MD		2013-2017
Roxie Albrecht, MD		2011-2016
Donn Schroder, MD		2011-2015
Jerry Hardacre, II, MD		2010-2014

OBJECTIVES

Upon completion of this activity, participants should be able to:

1. Discuss information presented on the research activities of the association's members and make clinical decisions based on current evidence within their practices.
2. Apply information gained through broad view, collaborative research into future basic and clinical research activities which may in turn benefit the next cycle of members.
3. Utilize research results to initiate optimization of the educational experience to maximally benefit resident training within the framework of work hour restrictions.

The purpose of this conference is to provide a vehicle for the distribution of peer-reviewed basic and clinical science research and to provide an opportunity for dialogue concerning topics of interest to the members of the Midwest Surgical Association. The target audience is surgeons.

ACCREDITATION STATEMENT

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the American College of Surgeons and the Midwest Surgical Association. The American College of Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

AMA PRA CATEGORY 1 CREDITS™

The American College of Surgeons designates this live activity for a maximum of 10.5 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Of the *AMA PRA Category 1 Credits™* listed above, a maximum of 8.75 credits meet the requirements for Self-Assessment.



American College of Surgeons
Division of Education

DISCLOSURE INFORMATION

In compliance with ACCME Accreditation Criteria, the American College of Surgeons, as the accredited provider of this activity, must ensure that anyone in a position to control the content of the educational activity has disclosed all relevant financial relationships with any commercial interest. All reported conflicts are managed by a designated official to ensure a bias-free presentation. Please see the insert to this program for the complete disclosure list.

Future Meetings

July 26-29, 2015

Grand Geneva Hotel

Lake Geneva, WI

August 7–10, 2016

Grand Hotel

Mackinac Island, Michigan

Past Presidents of the Midwest Surgical Association

Stephen F. Sener, MD	Acme, MI	2013
Richard A. Berg, MD	Mackinac Island, MI	2012
Roxie M. Albrecht, MD	Galena, IL	2011
Donn M. Schroder, MD	Mackinac Island, MI	2010
Jerry M. Hardacre, II, MD	Lake Geneva, WI	2009
James R. DeBord, MD	Mackinac Island, MI	2008
Anthony Senagore, MD	Farmington, PA	2007
Christopher McHenry, MD	Mackinac Island, MI	2006
Steven A. De Jong, MD	Niagara-on-the-Lake, Ontario, Canada	2005
Donald W. Moorman, MD	Mackinac Island, MI	2004
John P. Hoffman, MD	Galena, IL	2003
Larry R. Lloyd, MD	Mackinac Island, MI	2002
Donald J. Scholten, MD	Lake Geneva, WI	2001
Thomas A. Stellato, MD	Mackinac Island, MI	2000
Norman C. Estes, MD	Galena, IL	1999
Darrell A. Campbell, Jr., MD	Mackinac Island, MI	1998
Richard A. Prinz, MD	Sawmill Creek, OH	1997
Thomas A. Broadie, MD	Mackinac Island, MI	1996
Jason H. Bodzin, MD	Grand Traverse, MI	1995
Willard S. Stawski, MD	Mackinac Island, MI	1994
Gerard V. Aranha, MD	Lincolnshire, IL	1993
William C. Boyd, MD	Mackinac Island, MI	1992
Douglas B. Dorner, MD	Grand Traverse, MI	1991
John L. Glover, MD	Mackinac Island, MI	1990
Jack Pickleman, MD	Kohler, WI	1989
Samuel D. Porter, MD	Mackinac Island, MI	1988
William H. Baker, MD	Lake Geneva, WI	1987
Scott W. Woods, MD	Mackinac Island, MI	1986
Angelos A. Kambouris, MD	Lake Geneva, WI	1985
Richard E. Dean, MD	Mackinac Island, MI	1984
Anna M. Ledgerwood, MD	Sawmill Creek, OH	1983
Robert T. Soper, MD	Mackinac Island, MI	1982
G. Howard Glassford, MD	Lake Geneva, WI	1981
Clark Herrington, MD	Mackinac Island, MI	1980
Kenneth J. Printen, MD	Lincolnshire, IL	1979
Robert D. Allaben, MD	Mackinac Island, MI	1978
Richard S. Webb, MD	Itasca, IL	1977
Charles E. Lucas, MD	Mackinac Island, MI	1976

Past Presidents of the Midwest Surgical Association continued

Frank A. Folk, MD	Itasca, IL	1975
Robert F. Wilson, MD	Mackinac Island, MI	1974
William H. Marshall, MD	Oakbrook, IL	1973
Ernest M. Berkas, MD	Mackinac Island, MI	1972
Wendell J. Schmidtke, MD	Valparaiso, IN	1971
Robert J. Freeark, MD	Kalamazoo, MI	1970
Robert A. De Bord, MD	Peoria, IL	1969
Vernon L. Guynn, MD	Lake Geneva, WI	1968
Jack C. Cooley, MD	Champaign-Urbana, IL	1967
Robert P. Hohf, MD	St. Charles, IL	1966
Douglas R. Morton, MD	St. Charles, IL	1965
William H. Harridge, MD	St. Charles, IL	1964
John B. Moore, III, MD	Champaign-Urbana, IL	1963
Peter V. Moulder, MD	Genoa City, WI	1962
Thomas W. Samuels, Jr., MD	Chicago, IL	1961
James Cross, MD	Rockton, IL	1960
Loring S. Helfrich, MD	Rockton, IL	1959
Loring S. Helfrich, MD	Rockton, IL	1958

Mission Statement

The Midwest Surgical Association is a surgical organization made up of surgeons who have established reputations as practitioners, authors, teachers, and/or original investigators. The objective of this society is to exemplify and promote the highest standards of surgical practice, especially among young surgeons in the Midwest. The annual meeting is held in late July/early August each year in different locations throughout the Midwest and consists of a stimulating scientific program of the highest quality and a social program planned with children and families in mind.

THE MIDWEST SURGICAL ASSOCIATION

14005 Nicklaus Drive
Overland Park, KS 66223
Telephone: 913-402-7102
Fax: 913-273-1140
Email: events@lp-etc.com
Web: www.midwestsurg.org

New Members 2012

**Congratulations and welcome to the following New Members
elected at the 2013 Annual Meeting:**

ACTIVE

Gerard Abood	Maywood, IL
David Edelman	Detroit, MI
Adam Kabaker	Maywood, IL
Minh Luu	Chicago, IL
Jacquelyn O’Herrin	Oklahoma, OK
Roderich Schwarz	Goshen, IN
Gus Slotman	Vineland, NJ
Stephanie Valente	Cleveland, OH

ASSOCIATE

G. Paul Wright	Grand Rapids, MI
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Midwest Surgical Association Foundation

The Midwest Surgical Association is happy to announce the establishment of the Midwest Surgical Association Foundation. Foundation funding will be used solely for research awards, programming, special lectureship honorariums, and other appropriate scientific, research, or educational purposes.

The Midwest Surgical Association Foundation is a non-profit organization that is committed to exemplify, support, and promote the highest standards of surgical practice, especially among young surgeons of the Midwest. The Foundation has been organized to pursue exclusively charitable, educational, scientific, benevolent, and eleemosynary purposes including the promotion of surgical education and research that qualifies it as an exempt organization under Section 501©(3) of the Internal Revenue Code of 1986 and exempt from taxation under Section 501(a).

The Foundation may engage directly in charitable, educational, scientific, benevolent, or eleemosynary activities, including activities to promote surgical education and research. With increased support, these key arenas will strengthen the Association.

Not everyone has the time to participate in all Midwest Surgical Association activities and conferences, but by donating to the Foundation you are able to help support current activities, conferences, research, and lectureships as well as future projects.

The Foundation is now able to accept donations from members or nonmembers. If you would like to support the Association through its Foundation, both current and deferred gifts may be made. These donations are tax deductible and should be made out directly to:

Midwest Surgical Association Foundation

14005 Nicklaus Drive
Overland Park, KS 66223

Telephone: 913-402-7102
Fax: 913-273-1140
Email: events@lp-etc.com
Web: www.midwestsurg.org

Federal Tax I.D. Number: 20-8529483

You may also make donations on our web site using your Visa, MasterCard, Discover, or American Express credit card: **www.midwestsurg.org**, under MSA Foundation and select Make a Donation.

If you have any questions, please contact MSA Headquarters at **913-402-7102**.

Schedule of Events

SUNDAY, AUGUST 3, 2014

<i>12Noon – 6:00pm</i>	MSA Registration Open , Theatre Foyer
<i>2:00pm – 4:00pm</i>	MSA Executive Council Meeting , The Honorable Frank J. Kelley Conference Room
<i>5:30pm – 6:00pm</i>	New Member Reception , West Front Porch
<i>6:00pm – 7:00pm</i>	Welcome Reception , West Front Porch
<i>9:00pm – 10:30pm</i>	Spectacular Problems in Surgery , Theatre

MONDAY, AUGUST 4, 2014

<i>7:00am – 12Noon</i>	MSA Registration Open , Theatre Foyer
<i>8:00am – 12Noon</i>	Exhibit Displays Open , Art Gallery and Theatre Foyer
<i>8:00am – 8:20am</i>	Featured Posters , Gerald R. Ford Conference Center
<i>8:20am – 8:30am</i>	Welcome & Introductions , Theatre
<i>8:30am – 8:30am</i>	Scientific Session I , Theatre
<i>9:30am – 10:00am</i>	Scott Woods Memorial Lecture , Theatre
<i>10:00am – 10:15am</i>	Morning Break/Exhibits & Poster Viewing , Art Gallery/Gerald R. Ford Conference Center/Theatre Foyer
<i>10:15am – 12:15pm</i>	Scientific Session II: Resident Paper Competition , Theatre
<i>12:15pm – 1:00pm</i>	William H. Harridge Memorial Lecture , Theatre
<i>6:00pm – 7:00pm</i>	Cocktail Reception , West Front Porch
<i>7:00pm – 11:30pm</i>	Annual Banquet & Dinner Dance , Theatre

TUESDAY, AUGUST 5, 2014

<i>7:00am – 12Noon</i>	MSA Registration Open , Theatre Foyer
<i>8:00am – 12Noon</i>	Exhibit Displays Open , Art Gallery and Theatre Foyer
<i>8:05am – 8:15am</i>	Welcome & Introductions , Theatre
<i>8:15am – 10:15am</i>	Scientific Session III , Theatre
<i>10:15am – 10:30am</i>	Morning Break and Poster Viewing , Art Gallery/ Gerald R. Ford Conference Center/Theatre Foyer
<i>10:30am – 12:15pm</i>	Scientific Session IV , Theatre
<i>12:15pm – 12:45pm</i>	Presidential Address: Raymond Onders, MD , Theatre
<i>12:45pm – 1:30pm</i>	MSA Annual Business Meeting , Theatre

WEDNESDAY, AUGUST 6, 2014

Guest Departures

Family Program

SUNDAY, AUGUST 3, 2014

12Noon – 6:00pm	MSA Registration Open , <i>Theatre Foyer</i>
5:30pm – 6:00pm	New Member Reception , <i>West Front Porch</i>
6:00pm – 7:00pm	Welcome Reception , <i>West Front Porch</i>

MONDAY, AUGUST 4, 2014

7:00am – 8:00am	Annual 5K Fun Run , <i>Meet at Grand Hotel Tennis Club</i>
7:00am – 12:00pm	MSA Registration Open , <i>Theatre Foyer</i>
10:30am – 12:00pm	Spouse Program: Walking Tour with Grand Hotel Historian , <i>Grand Hotel Garden Terrace</i>
1:30pm	Golf Outing – <i>Grand Nine – Meet at Pro Shop</i>
1:30pm	Tennis Outing – <i>Resort Tennis Courts - Round Robin</i>
6:00pm – 7:00pm	Cocktail Reception , <i>West Front Porch</i>
7:00pm – 11:30pm	Annual Banquet and Dinner Dance , <i>Theatre</i>

TUESDAY, AUGUST 5, 2014

7:00am – 12:00pm	MSA Registration Open , <i>Theatre Foyer</i>
10:00am – 11:00am	Spouse Program: Cooking Demonstration , <i>Cottage Restaurant</i>
5:00pm – 6:30pm	Dinner in Grand Pavilion or on own
6:30pm - 7:00pm	Carriage rides to Fort Mackinac
7:00pm - 9:30pm	Fort Mackinac Night Cap
9:30pm	Return Carriages to Grand Hotel

WEDNESDAY, AUGUST 6, 2014

Guest Departures

Note: Children are welcome at all social events.

NOTE: See MSA Registration Desk for additional details on recreational activities



SCIENTIFIC PROGRAM

Scientific Program

SUNDAY, AUGUST 3, 2014

12Noon – 6:00pm

MSA Registration Open

Theatre Foyer

9:00pm – 11:00pm

Spectacular Problems in Surgery

Moderator: Raymond P. Onders, MD; James G. Tyburski, MD

Theatre

9:00pm - 9:15pm

1. OPEN TRANS-DIAPHRAGMATIC CHOLECYSTECTOMY VIA A RIGHT THORACOTOMY - THERE IS A HAMMER FOR EVERY KIND OF NAIL

Wojnarski CM, Robke JM, Wilhelm SM

University Hospitals Case Medical Center

9:15pm - 9:30pm

2. DISMOUNTED COMPLEX BLAST INJURY

Morris TJ, Bernard JD

Regions Hospital

9:30pm - 9:45pm

3. INTRAOPERATIVE DOUBLE GALL BLADDER AND ITS MANAGEMENT

Gupta A, Subhas G, Parikh JA, Jacobs M

Providence Hospital and Medical Centers

9:45pm - 10:00pm

4. SEVERE DISSEMINATED STAPH AUREUS INFECTION; A SURVIVAL STORY

Hallowell PT, Isbell J, Hranjec T, Sawyer R

University of Virginia

10:00pm - 10:15pm

5. RESECTION OF GASTROHEPATIC FISTULA AFTER TACE FOR HEPATOCELLULAR CARCINOMA

Ilyas S, Ouellette JR

Wright State University Boonshoft School of Medicine

Scientific Program *continued*

10:15pm - 10:30pm

6. AN UNUSUAL CASE OF BILIARY BEZOAR CAUSING SMALL BOWEL OBSTRUCTION IN A PATIENT WITH AMPULLARY DIVERTICULUM AND STAPLED GASTROPLASTY

Chapital AB, Ashfaq A, Madura J

Mayo Clinic – Phoenix

10:30pm - 10:45pm

7. UNUSUAL MECHANISM FOR BLUNT THORACIC AORTIC INJURY

Chang MC, Wahl WL, Brandt MM

Saint Joseph Mercy Hospital

10:45pm - 11:00pm

8. THE DIAGNOSTIC AND SURGICAL CHALLENGES OF MASSIVE LOCALIZED LYMPHEDEMA

Lucas CE, Jabbar F, Hamoudeh Z, Bachusz R

Wayne State University/Detroit Medical Center

MONDAY, AUGUST 4, 2014

7:00am – 1:00pm

MSA Registration Open

Theatre Foyer

8:00am – 1:00pm

Exhibit Displays Open

Art Gallery and Theatre Foyer

8:00am – 8:20am

Featured Posters

Moderator: Margo Shoup, MD

Theatre

8:20am – 8:30am

Welcome & Introductions

Theatre

Scientific Program continued

8:30am – 9:30am

Scientific Session I

Moderator: Ashwani Rajput, MD

8:30am - 8:45am

1. INTERVAL APPENDECTOMY: IS THERE TRULY AN ONCOLOGIC INDICATION?

Wright GP, Mater ME, Carroll JT, Chung MH
GRMEP/Michigan State University

8:45am - 9:00am

2. IMPROVING OPERATING ROOM (OR) EFFICIENCY VIA AN INTERPROFESSIONAL APPROACH

Bender JS, Ertl WE, Hollingsworth S, Murer K, Nicolescu TO, Wallace KR
Oklahoma University Health Sciences Center

9:00am - 9:15am

3. IDENTIFICATION OF UNEXPECTED VENTILATORY ABNORMALITIES IN PATIENTS WITH AMYOTROPHIC LATERAL SCLEROSIS (ALS) THROUGH ELECTROMYOGRAPHIC ANALYSIS USING INTRAMUSCULAR ELECTRODES IMPLANTED FOR THERAPEUTIC DIAPHRAGMATIC PACING

Onders RP, Elmo MJ, Kaplan C, Katirji B, Schliz R
University Hospitals Case Medical Center

9:15am - 9:30am

4. DOING WELL BY DOING GOOD: LINKING ACCESS WITH QUALITY

Kuo PC, Chang V, Wai PY, Driver J, Zapf M, Gupta G
Loyola University Medical Center

9:30am – 10:00am

Scott Woods Memorial Lecture

Official Update from the American College of Surgeons

Presenter: David B. Hoyt, MD, FACS
American College of Surgeons

10:00am – 10:15am

Morning Break/Exhibits & Poster Viewing

Ford Conference Room/Art Gallery/Theatre

Scientific Program continued

10:15am – 12:15pm

Scientific Session II: Resident Papers

Moderator: Raymond P. Onders, MD

University Hospitals Case Medical Center

10:15am - 10:30am

5. GASTRIC BYPASS IMPROVES SURVIVAL COMPARED TO PROPENSITY-MATCHED CONTROLS: A COHORT STUDY WITH OVER 10 YEAR FOLLOW-UP

Hallowell PT, Guidry CA, Davies SD, Sawyer RG, Schirmer BD

University of Virginia

10:30am - 10:45am

6. OUTCOMES AND CHARGES ASSOCIATED WITH OUTPATIENT INGUINAL HERNIA REPAIR ACCORDING TO METHOD OF ANESTHESIA AND SURGICAL APPROACH

Bourgon AL, Saxe JM, Woods RJ, Fox JP

Wright State University Boonshoft School of Medicine

10:45am - 11:00am

7. EARLY EFFECTS OF BOUGIE SIZE ON SLEEVE GASTRECTOMY OUTCOME

Hawasli AA, Jaquish BP, Almahmeed T, Meguid AA, Harriott AD, Roberts N

St. John Hospital and Medical Center

11:00am - 11:15am

8. SHOULD ALL BRANCH-DUCT IPMN'S BE RESECTED?

Plichta JK, Fridirici Z, Godambe AS, Yong S, Pappas S, Abood GJ, Aranha GV

Loyola University Medical Center

11:15am - 11:30am

9. IS INTRAOPERATIVE PARATHYROID HORMONE TESTING IN PATIENTS WITH RENAL INSUFFICIENCY UNDERGOING PARATHYROIDECTOMY FOR PRIMARY HYPERPARATHYROIDISM ACCURATE?

Sohn JA, Elfenbein D, Oltmann S, Schneider D, Sippel RS, Chen H

University of Wisconsin

Scientific Program continued

11:30am - 11:45am

10. EDUCATING SURGEONS ON INTRAOPERATIVE DISPOSABLE SUPPLY COSTS DURING LAPAROSCOPIC CHOLECYSTECTOMY: A REGIONAL HEALTH SYSTEM'S EXPERIENCE

Gitelis M, Vigneswaran Y, Ujiki MB, Denham W, Talamonti M, Muldoon JP, Linn JG
NorthShore University HealthSystem

11:45am - 12:00pm

11. PHOSPHATIDYLCHOLINE AND THE INTESTINAL MUCUS LAYER: IN VITRO EFFICACY AGAINST CLOSTRIDIUM DIFFICILE ASSOCIATED PMN ACTIVATION

Diebel LN, Olson A, Liberati DM
Wayne State University

12:00pm - 12:15pm

12. THE IMPACT OF OPERATIVE TIMING ON OUTCOMES OF APPENDICITIS: A NSQIP ANALYSIS

Kubasiak JC, Fair B, Janssen I, Myers JA, Millikan KW, Deziel DJ, Luu MB
Rush University Medical Center

12:15pm - 1:00pm

William H. Harriage Memorial Lecture

Surgical Metamorphosis: Preparing for Change

Presenter: Jeffrey Ponsky, MD

Scientific Program continued

TUESDAY, AUGUST 5, 2014

7:00am – 1:30pm

MSA Registration Open

Theatre Foyer

8:00am – 1:30pm

Exhibitor Displays

Art Gallery and Theatre Foyer

8:05am – 8:15am

Welcome & Introductions

Theatre

8:15am – 10:15am

Scientific Session III

Moderator: Jeffrey Bender, MD

8:15am - 8:30am

13. EXPERIENCE WITH A SIMPLE CLAMP-CRUSH TECHNIQUE DEVOID OF OTHER DEVICES FOR LIVER RESECTIONS IN A SURGICAL ONCOLOGY PRACTICE

Schwarz RE

Indiana University Health Goshen Center for Cancer Care

8:30am - 8:45am

14. PREDICTION MODELS OF MEDICARE 90-DAY POST-DISCHARGE DEATHS, READMISSIONS, AND COSTS IN BOWEL RESECTIONS

Fry DE, Pine M, Locke D, Pine G

Michael Pine and Associates

8:45am - 9:00am

15. MESH WRAPPING FOR SEVERE HEPATIC INJURY: A BENEFICIAL OPTION IN THE TRAUMA SURGEON'S ARMAMENTARIUM

Kennedy R, Brevard SB, Bosarge P, Simmons JD, Frotnan MA, Baker JA, Pritchett C,
Gonzalez RP

University of South Alabama

Scientific Program continued

9:00am - 9:15am

16. PAN-BODY CT SCANNING FOR PATIENTS WITH INTRACRANIAL HEMORRHAGE AFTER LOW ENERGY FALLS

Ong AW, Castor L, Figueredo R, Butler S, Fernandez F
Reading Hospital

9:15am - 9:30am

17. MULTIVISCERAL RESECTION FOR ADVANCED RECTAL CANCER: OUTCOMES AND EXPERIENCE AT A SINGLE INSTITUTION

Crawshaw B, Augestad KM, Keller DS, Swendseid B, Nobel T, Champagne BJ, Stein SL, Delaney CP, Reynolds HL
University Hospitals Case Medical Center

9:30am - 9:45am

18. APPENDECTOMY: A RISK FACTOR FOR COLECTOMY IN PATIENTS WITH CLOSTRIDIUM DIFFICILE

Yong FA, Wang H, Tsai J, Alvarado AM, Estes NC
University of Illinois College of Medicine at Peoria

9:45am - 10:00am

19. ESTABLISHING A COMPLEX SURGICAL ONCOLOGY PROGRAM WITH LOW MORBIDITY AND MORTALITY AT A COMMUNITY HOSPITAL: IS IT POSSIBLE?

Berri RN, Van Dorp DR
St. John Hospital and Medical Center

10:00am - 10:15am

20. ASSIMILATING ENDOCRINE ANATOMY THROUGH SIMULATION: A PRE-EMPTIVE STRIKE!

Rowse PG, Ruparel RK, Brahmhatt RD, Dy BM, Aljamal YN, Farley DR
Mayo Clinic – Rochester

10:15am – 10:30am

Morning Break and Poster Viewing

Art Gallery and Gerald R. Ford Conference Room

Scientific Program continued

10:30am – 12:15pm

Scientific Session IV

Moderator: Scott Wilhelm, MD

10:15am – 10:30am

21. DOES PRACTICE MAKE PERFECT? RESIDENT EXPERIENCE WITH BREAST SURGERY INFLUENCES EXCISION ADEQUACY

Plichta JK, Perez CB, He E, Bloom A, Abood GJ, Godellas C

Loyola University Medical Center

10:45am - 11:00am

22. THE UTILITY OF FROZEN SECTION EXAMINATION FOR PATIENTS WITH A THYROID NODULE AND “ATYPIA/FOLLICULAR LESION OF UNDETERMINED SIGNIFICANCE”

Posillico SE, Wilhelm SM, McHenry CR

MetroHealth Medical Center

11:00am - 11:15am

23. THE LAPAROSCOPIC APPROACH TO DISTAL PANCREATECTOMY FOR DUCTAL ADENOCARCINOMA RESULTS IN SHORTER LENGTHS OF STAY WITHOUT COMPROMISING ONCOLOGIC OUTCOMES

Sharpe SM, Talamonti MS, Bentrem DJ, Roggin KK, Prinz RA, Marsh RDW,

Stocker SJ, Winchester DJ, Winchester DP, Baker MS

NorthShore University HealthSystems

11:15am - 11:30am

24. EXTENDED DISTAL PANCREATECTOMY FOR PANCREATIC ADENOCARCINOMA WITH SPLENIC VEIN THROMBOSIS AND/OR ADJACENT ORGAN INVASION

Roch AM, Singh H, House MG, Turner AP, Ceppa EP, Zyromski NJ, Nakeeb A,

Schmidt CM

Indiana University School of Medicine

11:30am - 11:45am

25. TUMOR SIZE AS A PROGNOSTIC INDICATOR IN COLON CANCER, AN ANALYSIS OF THE NATIONAL CANCER DATABASE

Saha S, Shaik M, Berbiglia L, Johnston G, Dhar V, Wiese D, Singh T, Arora M

McLaren Medical Center, Flint

Scientific Program continued

11:45am - 12:00pm

26. PRE-OPERATIVE SIMULTANEOUS FRACTIONATED CISPLATIN AND RADIATION THERAPY IN ADVANCED OPERABLE STAGE III AND IV SQUAMOUS CELL CARCINOMA (SCCA) OF THE HEAD AND NECK

Davis M, Tyrrell J, Slotman GJ

Inspira Health Network

12:00pm - 12:15pm

27. INTUSSUSCEPTION IN ADULTS: RISK FACTORS, CAUSES AND MANAGEMENT

Amr MA, Alzghari MJ, Polites SF, Jenkins DH, Cullinane DC, Zielinski MD

Marshfield

12:15pm – 12:45pm

Presidential Address: Raymond P. Onders, MD

Diaphragm Pacing: The History of the Surgery and the Shaping of a Surgical Career

12:45pm – 1:30pm

MSA Annual Business Meeting

Posters

Poster #2. EFFECTS OF ACGME INTERN 16 HOUR DUTY PERIODS ON THE ACADEMIC CURRICULUM OF SURGICAL INTERNS

Vavra JM, Edhayan E

St. John Hospital and Medical Center

Poster #3. DOES LAPAROSCOPIC DISTAL PANCREATECTOMY REDUCE READMISSIONS?

Parikh JA, Bendix SD, Jabbar F, Jacobs MJ

St. John Providence Hospital

Poster #5. RENAL RESPONSE FOLLOWING PERIOPERATIVE KETOROLAC ANALGESIA IN LIVING KIDNEY DONATION

Li NY, Tong L, Bhattacharya SD, Barbas AS, Wai PY, Kuo PC

Loyola University Medical Center

Poster #6. PREDICTORS OF CLAVIEN 4 COMPLICATIONS AND MORTALITY AFTER NECROSECTOMY: ANALYSIS OF 1155 PATIENTS IN THE NSQIP DATABASE

Bakey S, Kolbe N, Louwers L, Falvo A, Blyden D, Patton P, Rubinfeld IS

Henry Ford Hospital

Poster #7. CRITICAL ASSESSMENT OF SURGICAL PALLIATION IN UNRESECTABLE PANCREAS CANCER

O'Halloran EB, Gange W, Berger E, Abood G, Pappas SG, Aranha GV

Loyola University Medical Center

Poster #8. INTERACTION OF RACE WITH WEIGHT LOSS AND RESOLUTION OF OBESITY CO-MORBIDITIES IN PATIENTS UNDERGOING LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS (LRYGB): AN ANALYSIS OF 83,059 BOLD DATABASE PATIENTS

Emrich JS, Slotman GJ

Inspira Health Network

Poster #9. MORTALITY AND MORBIDITY OF AGGRESSIVE CYTOREDUCTIVE SURGERY AND HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY (HIPEC) PERFORMED AT A COMMUNITY HOSPITAL: IS IT SAFE?

Yoon WJ, Berri RN

St. John Hospital and Medical Center

Poster #10. OVERALL FITNESS IS ASSOCIATED WITH REDUCTION IN MORTALITY AMONG MALES WITH SEVERE INJURY

Raines A, Garwe T, Rust K, Verity P, Morghare P, Adeseye A, Irvan J, Havron W, Albrecht R, Lees J

Oklahoma University Health Sciences Center

Poster #11. EVIDENCE BASED PRACTICE IN SURGERY

Patel PP, Nally MC, Myers JA, Millikan KW, Deziel DJ, Luu MB

Rush University Medical Center

Poster #12. CONVERSION FROM LAPAROSCOPIC TO OPEN COLECTOMY IN SURGICAL RESECTION OF COLON CANCER

Sticca RP, Barker KR, MacGregor JM, Alberts SR, Mahoney MR, Nelson G, Pockaj BA
University of North Dakota



ABSTRACTS

Scientific Paper Abstracts

1. INTERVAL APPENDECTOMY: IS THERE TRULY AN ONCOLOGIC INDICATION?

Wright GP, Mater ME, Carroll JT, Chung MH
GRMEP/Michigan State University

Objective: Initial non-operative management of acute appendicitis with abscess has increased with the emergence of percutaneous drainage. While the rate of recurrent appendicitis is low, recent data suggests there may be an increased rate of mucinous neoplasms in these cases.

Methods: The study was a retrospective review of patients with acute appendicitis at two university-affiliated community hospitals over a 12-year period. Patients treated with an initial non-operative approach were selected for review. The primary outcome measure was the incidence of appendiceal neoplasms found at interval appendectomy.

Results: Six-thousand one hundred forty-eight patients presented with acute appendicitis over the study period. Appendectomy was performed in 5961 (97.0%) at the index admission. Of the 187 patients treated with initial non-operative management, 88 underwent interval appendectomy. Mean time to interval appendectomy was 2.7 months. Forty-eight (54.5%) patients had a completed laparoscopic procedure. Ten cases required additional resection including ileocecectomy and right hemicolectomy in five patients each, respectively. Appendiceal neoplasms were identified in 10/88 specimens (11.4%). These included mucinous neoplasms (n=5), carcinoid tumors (n=4), and appendiceal adenocarcinoma (n=1). Only one patient with a neoplasm was under age 40 (mean=57). The rate of neoplasm in patients over age 40 was 14.8%. Sixty-two cases (70.5%) were performed on an outpatient basis with low postoperative morbidity (3.4%) and readmission (5.7%).

Conclusion: In a large population of patients undergoing interval appendectomy, appendiceal neoplasms were identified in 15% of patients over age 40. These findings should be weighed against the surgical risks in determining eligibility for interval appendectomy.

2. IMPROVING OPERATING ROOM (OR) EFFICIENCY VIA AN INTERPROFESSIONAL APPROACH

Bender JS, Ertl WE, Hollingsworth S, Murer K, Nicolescu TO, Wallace KR
Oklahoma University Health Sciences Center

Objective: Third-party payer reimbursements will likely continue to decrease, making it imperative for operating rooms, often a hospital's biggest revenue source, to improve efficiency. As the sole tertiary referral and Level 1 trauma center in our state, OR demand to handle complex and time-sensitive cases is constant. We report the outcome of a streamlined six-sigma program to improve OR utilization.

Methods: In January, 2011, our hospital system instituted a facility-wide approach to address the problem of OR efficiency. Interprofessional teams examined aspects of OR use to determine areas of existing or potential inefficiency. An OR Governance committee consisting of Department Chairs, nursing and senior administration oversaw the process.

Results: Outpatients' readiness on time for surgery increased from 59% to 96%, while first case on time starts improved from 32% to 73%. Block utilization went from 68% to 74% and actual room utilization improved from 56% to 68%. An on-campus outpatient surgery center opened almost simultaneously to this data collection period, so although the total number of cases in the main ORs remained flat, the number of inpatient cases increased by seven percent while the number of OR minutes decreased by one percent. Overtime went from 6.73% of total to 4.11%, so personnel costs decreased 13.8% despite additional hires. There was a reduction in annual voluntary OR staff turnover from 27.9% to 4.2%. Annualized revenues increased 9.6%.

Conclusion: A concerted effort to optimize OR performance resulted in marked improvements in access, overall case efficiency, staff satisfaction and financial performance.

3. IDENTIFICATION OF UNEXPECTED VENTILATORY ABNORMALITIES IN PATIENTS WITH AMYOTROPHIC LATERAL SCLEROSIS (ALS) THROUGH ELECTROMYOGRAPHIC ANALYSIS USING INTRAMUSCULAR ELECTRODES IMPLANTED FOR THERAPEUTIC DIAPHRAGMATIC PACING

Onders RP, Elmo MJ, Kaplan C, Katirji B, Schliz R
University Hospitals Case Medical Center

Objective: Patients with ALS have significant respiratory abnormalities that ultimately leads to death. Control of respiration is not completely understood in normal subjects and even less in ALS. This study analyzes diaphragm electromyographic(dEMG) activity through the use of therapeutically implanted diaphragm pacing(DP) electrodes in ALS patients.

Methods: Retrospective analysis of dEMG data obtained during three IRB and FDA trials. Post-operatively the implanted electrodes were used to analyze epochs of dEMG during normal respiration, maximum inspiration, continuously during sleep and when non-invasive ventilation(NIV) was being used.

Results: A total of 53 patients were implanted with DP electrodes. Of this group 36 had bilateral dEMG assessments, 18 had continuous overnight dEMG analysis with pulse oximetry and 19 had serial dEMG analysis. Several important new findings were identified through dEMG analysis: 1) instability of ventilator drive causing hypoventilation with increasing hypercarbia; 2) significant incidence acquired central sleep apnea; 3) NIV causing diaphragm activity suppression and atrophy; 4) identification of unilateral abnormalities correlating with radiologic findings; 5) the dEMG correlates to diaphragm functional tests and; 6) can be serially monitored to address changes in physiology. The first 4 findings could be addressed by DP to decrease hypercarbia, improve sleep, decrease atrophy, maintain functional slow twitch muscle fibers and prevent paradoxical diaphragm movement.

Conclusion: Ability to monitor diaphragm physiology with dEMG using DP electrodes allowed the identification of previously unknown abnormalities of ALS respiration. DP was then used to help correct these abnormalities and improve the respiratory function of patients leading to improved survival.

4. DOING WELL BY DOING GOOD: LINKING ACCESS WITH QUALITY

Kuo PC, Chang V, Wai PY, Driver J, Zapf M, Gupta G

Loyola University Medical Center

Objective: Altruistic care is a leading mission in academic centers but is often perceived as a fiscally untenable endeavor associated with indigent and lower quality patient care. We hypothesize that centers which prioritize altruism deliver superior quality care.

Methods: Data were obtained from California's OSHPD, Medicare Hospital Compare (MHC), and the Joint Commission US Census Bureau's 2007-2011 American Community Survey 5-Year Estimate. Hospitals were analyzed using summary statistics, regression analysis, and quality indices to measure outcome. Total discounted revenue/total revenue (TDR/TR) was used to measure discounted and/or free care and served as a financial proxy for altruism.

Results: 51 non-profit and 29 for-profit Medicare-certified acute care hospitals were included in the study. For non-profit hospitals, TDR/TR positively correlated with 5 quality indices including pneumonia ($p < 0.001$), heart failure ($p = 0.05$), and overall surgical process of care ($p = 0.009$). Hospital size was also a predictor of higher quality surgical process ($p = 0.06$, 201-300 beds; $p = 0.01$, > 301 beds) with the teaching status of a hospital demonstrating positive correlation ($\hat{I}^2 = 0.048$; $p = 0.69$) while poverty was negatively correlated ($\hat{I}^2 = -0.00072$; $p = 0.89$). Interestingly, positive TDR/TR did not adversely affect mortality or readmission rates ($p = 0.52$). The relationship between TDR/TR and overall process of care was negative and insignificant when regression was applied to for-profit hospitals ($\hat{I}^2 = -0.2016158$; $p = 0.19$).

Conclusion: This represents the first study in the literature examining altruism and quality of care. TDR/TR predicts quality and process measures in non-profit hospitals without affecting mortality and readmission. Altruistic motivation may be associated with the delivery of higher quality surgical care.

5. GASTRIC BYPASS IMPROVES SURVIVAL COMPARED TO PROPENSITY-MATCHED CONTROLS: A COHORT STUDY WITH OVER 10 YEAR FOLLOW-UP

Hallowell PT, Guidry CA, Davies SD, Sawyer RG, Schirmer BD

University of Virginia

Objective: In 2007, GBP was demonstrated to improve survival compared with age, sex, and BMI-matched controls over a mean follow-up period of 7.8 years. However, this study failed to fully control for confounding due to treatment allocation bias. The purpose of this study is to evaluate the long-term survival following gastric bypass using propensity-matched controls.

Methods: We identified all patients who either received a GBP or met criteria to receive a GBP between Jan 1, 2002 and Dec 31, 2003. Propensity matching was performed using 22 potential confounders encompassing age, comorbid conditions, and insurance status known during the 2-year enrollment period. Long-term, all-cause mortality data was collected and evaluated using Kaplan-Meier curves.

Results: 430 GBP cases and 5323 controls were identified from the enrollment period. Ultimately, 802 cases and controls (1:1 matching, 93.2% match rate) were identified using propensity matching, effectively eliminating treatment allocation bias from the cohort. Median follow-up was similar between groups (11.9 vs. 11.8 years). Overall mortality was lower for the GBP group (6.5% vs. 12.7%; p-value 0.003) with an associated odds ratio = 0.48 (95% CI: 0.29, 0.78). GBP demonstrated significantly increased survival when compared to controls (Log-Rank p-value = 0.002). Similar patterns were noted among diabetics (mortality: 12.6% vs. 22.8%; OR: 0.5; 95% CI: 0.26, 0.97; Survival Log-Rank p-value = 0.04).

Conclusion: We describe the only propensity-matched cohort of morbidly obese, GBP-eligible patients in the literature. We have demonstrated that gastric bypass provides a clear long-term survival advantage compared non-surgical propensity-matched controls.

6. OUTCOMES AND CHARGES ASSOCIATED WITH OUTPATIENT INGUINAL HERNIA REPAIR ACCORDING TO METHOD OF ANESTHESIA AND SURGICAL APPROACH

Bourgon AL, Saxe JM, Woods RJ, Fox JP

Wright State University Boonshoft School of Medicine

Objective: We conducted this study to compare short-term outcomes and costs between common methods of hernia repair and anesthesia in the outpatient setting.

Methods: Using New York's state ambulatory surgery databases, we identified discharges for adult patients who underwent inguinal hernia repair between July 2009 and September 2010. Patients were grouped by method of hernia repair (loco-regional, general, or laparoscopic repair). We compared the frequency of hospital based acute care encounters, defined as a hospital admission or emergency department visit within 30 days of discharge, as well as total health care charges across groups using multivariable regression models.

Results: The final sample included 15,818 discharges for hernia repair with 7,905 (50.0%) receiving loco-regional anesthesia, 4,710 (29.8%) general anesthesia, and 3,203 (20.2%) completed laparoscopically. Most were for primary (90.9%), unilateral (85.7%) hernias without symptoms of obstruction (92.9%). Compared to those receiving loco-regional anesthesia (5.2%), patients receiving general anesthesia (6.0%, adjusted odds ratio=1.12 [0.95-1.32] or having a laparoscopic procedure (6.0%, 1.35 [1.08-1.68]) experienced a similar frequency of hospital based acute care encounters within 30 days of discharge. However, risk adjusted charges increased markedly across groups (loco-regional=\$6,845 vs. general=\$7,839 vs. laparoscopic=\$11,340, $p < 0.01$).

Conclusion: Outpatient hernia repair under loco-regional anesthesia can be performed safely in the outpatient setting. Additionally, this method of repair is associated with fewer charges than other methods of repair.

7. EARLY EFFECTS OF BOUGIE SIZE ON SLEEVE GASTRECTOMY OUTCOME

Hawasli AA, Jaquish BP, Almahmeed T, Meguid AA, Harriott AD, Roberts N
St. John Hospital and Medical Center

Objective: The objective of this study was determine the effect of bougie size on postoperative recovery and postoperative weight loss following laparoscopic sleeve gastrectomy.

Methods: In 2011, 131 patients undergoing SG were prospectively evaluated; Group 1 (n=72) underwent SG with a 32 Fr. bougie, and Group 2 (n=59) had a 36 Fr. bougie. One month and one year data were analyzed, including weight loss, zofran use, and readmission rates. Both groups were similar in age and initial BMI.

Results: There were no intra-operative complications or mortalities. Group 1 had a longer hospital stay (LOS) (1.56 ± 0.82 vs. 1.32 ± 0.47 days, $p=0.04$) and more Zofran use for nausea (6.7 ± 8.0 vs. 5.3 ± 4.5 mg, $p=0.2$). Ten (13.9%) patients in Group 1 returned 16 times to the Emergency Room (ER) for complications; 6 were re-admitted, and of those 4 were re-admitted twice and 1 three times for a total of 57 days. In Group 2, five (8.5%) patients returned to the ER and 2 were re-admitted for a total of 8 days. Percent Excess Weight Loss (%EWL) at one month was higher in Group 1 than Group 2 (13.6 ± 4.9 vs. 11.6 ± 3.6 , $p=0.01$) but no difference at one year (73.0 ± 20.6 vs. 71.1 ± 20.95 , $p=0.73$).

Conclusion: The use of a smaller bougie results in longer LOS, more nausea, and more ER visits with significant re-admission days. Weight loss with the smaller bougie was better at one month but not at one year. We recommend the use of a larger bougie as long term weight loss is not affected.

8. SHOULD ALL BRANCH-DUCT IPMN'S BE RESECTED?

Plichta JK, Fridirici Z, Godambe AS, Yong S, Pappas S, Abood GJ, Aranha GV
Loyola University Medical Center

Objective: Intraductal papillary mucinous neoplasia (IPMN) arising in the main pancreatic duct has been consistently shown to be associated with a higher risk of malignancy. However, the relationship between branch-duct IPMN and malignancy remains controversial and difficult to assess.

Methods: Between 1/1/1999 and 5/1/2013, we retrospectively identified 84 consecutive patients with IPMN who underwent attempted curative resection. Clinicopathologic factors and cancer-related outcomes were assessed.

Results: 84 patients were identified, 43 males and 41 females, median age of 71.5 years. Although 32 lesions were found incidentally, the majority were symptomatic (abdominal pain and/or weight loss). Prior to surgery, 55 patients underwent endoscopic ultrasounds and 58 underwent biopsy. Only 12 lesions were specified as branch-duct pre-operatively, which inconsistently correlated with the surgical specimen ($p=0.65$). The majority of patients (62%) underwent pancreaticoduodenectomy, and the remainder had either distal pancreatectomy (36%) or central pancreatectomy (2%). Pathologic evaluation identified 28 branch-duct lesions and 54 main-duct lesions, of which 38 had concurrent branch-duct lesions; duct of origin data was unavailable for 2 specimens. Of the 82 patients where the duct was specified, 33 had associated invasive ($n=28$) or in-situ ($n=5$) carcinoma. There was no correlation between branch-duct origin and invasive carcinoma (main-duct 19 of 54, branch-duct 9 of 28, $p=0.78$). Multivariate analysis including tumor size did not influence this outcome (OR 1.14, CI 0.4-3.3). Malignant tumor size did not significantly differ by duct of origin (main-duct 3.3cm, branch-duct 3cm, $p=0.2$). Furthermore, 2 of 9 malignant branch duct lesions were <2cm in size on pre-operative imaging. Of the 6 patients with branch duct lesions ≥ 3 cm on pre-operative imaging, only 50% harbored invasive malignancy. The presence of symptoms preoperatively was significantly associated with malignancy (51% vs. 22%, $p=0.01$). Weight loss or jaundice on initial presentation was associated with a subsequent diagnosis of malignancy among patients with branch-duct lesions (both $p<0.05$). Of the 28 patients with invasive carcinoma, branch-duct lesions were significantly associated with the presence of positive lymph nodes, perineural invasion, and lymphovascular invasion (all $p<0.05$).

Conclusion: Our data suggests that branch-duct lesions are as equally likely to be associated with invasive malignancy as main duct lesions, and may demonstrate more aggressive characteristics when invasion occurs. The malignant potential of IPMN remains clinically elusive based on current clinical strategies, particularly in regards to invasive characteristics of side-branch IPMN. Therefore, surgical resection is recommended for all IPMN lesions in order to reliably assess for concurrent malignancy.

9. IS INTRAOPERATIVE PARATHYROID HORMONE TESTING IN PATIENTS WITH RENAL INSUFFICIENCY UNDERGOING PARATHYROIDECTOMY FOR PRIMARY HYPERPARATHYROIDISM ACCURATE?

Sohn JA, Elfenbein D, Oltmann S, Schneider D, Sippel RS, Chen H

University of Wisconsin

Objective: Intraoperative parathyroid hormone (ioPTH) monitoring during parathyroidectomy for primary hyperparathyroidism (PHPT) relies on a greater than 50% decline of baseline to indicate curative resection. PTH is cleared by the kidneys, and some speculate ioPTH is inaccurate in patients with chronic renal insufficiency (CRI). We hypothesize that ioPTH monitoring in patients with CRI would show slower decline, but would still accurately predict cure.

Methods: A retrospective review of patients with PHPT who underwent curative parathyroidectomy with resection of a single adenoma. Patients with multigland disease, persistence, or recurrence were excluded. Cure was defined as normal calcium at 6 months. Patients were classified by renal function as either CRI (GFR <60mL/min) or normal (GFR ≥ 60mL/min). Percentage of patients reaching 50% decline of ioPTH was compared between the groups at all time points.

Results: Between 2000 and 2013, 1080 consecutive patients met inclusion criteria. Normal renal function was present in 710, while 370 had CRI. Patients with CRI were older ($p < 0.001$) and more often female ($p < 0.001$). At five minutes, only 67% of patients with CRI met criteria for cure vs. 76% of normal renal function patients ($p = 0.001$). At ten minutes, 88% vs. 93% met criteria ($p = 0.02$), and by fifteen minutes, the gap had narrowed to 94% vs. 98% ($p = 0.005$).

Conclusion: Despite CRI patients with PHPT having slower ioPTH decline after curative parathyroidectomy, 94% met ioPTH criteria by 15 minutes. Standard ioPTH criteria can be used with CRI patients, but patience must be exercised by the surgeon since fewer patients meet criteria early on.

10. EDUCATING SURGEONS ON INTRAOPERATIVE DISPOSABLE SUPPLY COSTS DURING LAPAROSCOPIC CHOLECYSTECTOMY: A REGIONAL HEALTH SYSTEM'S EXPERIENCE

Gitelis M, Vigneswaran Y, Ujiki MB, Denham W, Talamonti M, Muldoon JP, Linn JG
NorthShore University HealthSystem

Objective: To examine the effect of surgeon education on disposable supply usage during laparoscopic cholecystectomy.

Methods: At the end of the 2013 fiscal year (FY 13), surgeons were educated about the cost of disposable equipment used in common general surgery operations without punitive measures or financial incentives for achieved cost reductions. Surgeons with lower supply costs demonstrated individual techniques to their colleagues. Surgical supply costs for laparoscopic cholecystectomy in FY13 were compared to surgical supply costs for the first quarter of fiscal year 2014.

Results: Following surgeon education, the average disposable supply cost per laparoscopic cholecystectomy was reduced from \$595.21 (n=569) in FY 2013 to \$547.04 (n=162) in first quarter fiscal 2014, representing an 8.2% reduction in supply costs (p=0.005). For surgeons who perform the highest volume of laparoscopic cholecystectomies (n>50), the average cost reduction was \$588.19 to \$504.54, representing an average reduction of 14.2% per case (p < 0.001). Overall, the most commonly made adjustments in the operating room included reduction in the use of expensive fascial closure devices (81%), clip appliers (54%), and specimen retrieval bags.

Conclusion: Disposable equipment cost for laparoscopic cholecystectomy can be reduced by simple surgeon education. Even though disposable costs for a typical laparoscopic cholecystectomy are low compared to many other procedures, a significant amount of savings can be realized on an annual basis. These techniques can likely be used to reduce costs in an array of specialties and procedures.

11. PHOSPHATIDYLCHOLINE AND THE INTESTINAL MUCUS LAYER: IN VITRO EFFICACY AGAINST CLOSTRIDIUM DIFFICILE ASSOCIATED PMN ACTIVATION

Diebel LN, Olson A, Liberati DM
Wayne State University

Objective: The incidence and severity of Clostridium difficile infection (CDI) have increased in the past decade. Adjunctive treatments aimed at improving the mucosal barrier defense against C. diff. are under investigation. Phosphatidylcholine (PC), an important component of intestinal mucus, has clinical efficacy in chronic ulcerative colitis; it also protects the intestinal barrier against C. diff. toxins in vitro. Systemic and intestinal related polymorphonuclear neutrophil (PMN) activation may contribute to intestinal injury and systemic toxicity in patients with CDI. We hypothesized that the intestinal barrier function against C. diff. toxin by exogenous PC would ameliorate PMN activation.

Methods: Mucus producing (HT29-MTX) and nonmucus producing (HT29) intestinal epithelial (IEC) monolayers were co cultured with C. diff. toxin A (50Åµg/ml) +/- exogenous PC. Basal chamber culture supernatants were obtained at 6hrs. PMNs from healthy volunteers were co cultured with these basal supernatants and activation indexed by CD11b expression, superoxide anion generation and % elastase release (after addition of fMLP).

Results: There were significant increases in indices of PMN activation following tox A treatment ($p<0.001$). PC treatment of both nonmucus and mucus producing IEC and exposure to tox A abrogated subsequent PMN activation following co culture with IEC supernatants ($p<0.001$). The most profound effect with PC treatment was noted with the mucus producing IEC alone.

Conclusion: Exogenous PC ameliorated PMN activation from IEC exposed to C. diff toxin. Administration of exogenous PC may be a useful adjunctive treatment in severely ill or immunocompromised patients with CDI.

12. THE IMPACT OF OPERATIVE TIMING ON OUTCOMES OF APPENDICITIS: A NSQIP ANALYSIS

Kubasiak JC, Fair B, Janssen I, Myers JA, Millikan KW, Deziel DJ, Luu MB
Rush University Medical Center

Objective: Surgery is indicated for acute uncomplicated appendicitis but the optimal timing is controversial. Literature is conflicting on the effect of time to intervention and complication rates. Recent randomized controlled trials even suggest antibiotic therapy alone is sufficient for acute uncomplicated appendicitis. We queried the American College of Surgeons - National Surgical Quality Improvement Program (ACS-NSQIP) data set for the role of time to intervention.

Methods: The ACS-NSQIP participant use data file was queried for patients undergoing laparoscopic and open appendectomy between years 2007-2012. Logistic regression was utilized to evaluate 30-day morbidity and mortality of operative intervention at different time periods, <24 hours, 24-48 hours and >48 hours, while adjusting for preoperative risk factors.

Results: A total of 69,926 patients undergoing appendectomy were identified. These were divided by time from admission to surgical intervention into three groups: group 1 <24 hours (n=55,839; 79.9%), group 2 24-48 hours (n=13,409; 18.6%), and group 3 >48 hours (n=1,038; 1.5%). In the unadjusted model, the risk of complications was not increased for group 1 versus group 2 (Odds ratio 1.03, 95% CI 0.95-1.12) while there was an increase in complications for group 1 or 2 versus 3 (OR 3.18, CI 95% 2.69-3.76). After adjustment, the risk was attenuated but remained increased for group 1 or 2 versus 3 (OR 1.66, 95%CI 1.34-2.07).

Conclusion: This data demonstrates equivalent 30 day outcomes between <24 hours and 24-48 hours for patients undergoing appendectomy. There was a 2-fold increase in complication rates for any patient longer than 48 hours.

13. EXPERIENCE WITH A SIMPLE CLAMP-CRUSH TECHNIQUE DEVOID OF OTHER DEVICES FOR LIVER RESECTIONS IN A SURGICAL ONCOLOGY PRACTICE

Schwarz RE

Indiana University Health Goshen Center for Cancer Care

Objective: Methods of transecting liver parenchyma during liver resection (LR) have been linked to intraoperative blood loss and to postoperative morbidity, with a recent increased use of energy devices over traditional clamp-crush hepatotomy (CCH).

Methods: Prospectively collected data from 191 consecutive patients undergoing LR with exclusive CCH by a single surgeon were examined, and parameters associated with blood loss (BL) and postoperative morbidity were analyzed.

Results: There were 94 men and 97 women, with a median age of 60 (range 26-90 years). Diagnoses included colorectal (46%) or other metastases (12%), HCC (26%), benign conditions (13%) and others (3%). 93 LRs were major (3 or more segments, 49%) and 98 were minor (51%). Resection extent involved liver only (n=129, 68%) or liver with extrahepatic components / reconstruction (n=62, 32%). 51% of LRs were anatomic, 35% nonanatomic, and 14% combined. Median Pringle time was 23 min (9-76). Median BL was 300 ml (20-5000), with RBC transfusions given in 14% (8% for liver only resections). R1 status was observed in 14%, and 7 patients had bile leaks (4%, 5 after combined resections). Complications were major in 10% including 6 deaths, and minor in 17%. Median length of stay (LOS) was 7 days (3-40). Significant relationships were observed for BL with complex resections, transfusion needs, major morbidity and LOS, but not between Pringle time and BL or LOS.

Conclusion: A CCH technique as employed in this LR experience without any use of potentially expensive additional devices can result in acceptable postoperative outcomes.

14. PREDICTION MODELS OF MEDICARE 90-DAY POST-DISCHARGE DEATHS, READMISSIONS, AND COSTS IN BOWEL RESECTIONS

Fry DE, Pine M, Locke D, Pine G

Michael Pine and Associates

Objective: To develop prediction models for evaluation of deaths, severe complications, readmissions, and preventable costs of care in intestinal resections.

Methods: We designed prediction models for inpatient mortality, prolonged length of stay(prLOS) as a measure of serious inpatient complications, 90-day post-discharge(90-DPd) deaths and readmissions, and routine and excess costs of hospitalization for elective and emergent small and large intestinal resections from the Medicare Inpatient file(2009-2011) in hospitals that met accurate coding criteria and had more than 20 total cases.

Results: 1,171 hospitals had 118,758 bowel resections. There were 5,594 inpatient deaths (4.7%) and 8,207(6.9%) prLOS. Following discharge at 90-DPd: 3,730 patients died without readmission with a prediction model of 35 variables(C-statistic=0.872), and 26,969 patients(23.8% of live discharges) were readmitted(3,856 died) with a prediction model of 39 variables (C-statistic=0.650). Among significant($P<0.0001$) odds ratios(ORs), 90-DPd deaths were associated with malignant neoplasm(OR=6.9), age > 84 years(OR=5.4), prLOS(OR=4.3), and resections performed on day 3 or thereafter in the index hospitalization(OR=1.98). Similar variables were associated with 90-DPd readmissions. The model for routine($R^2=0.746$) and excess costs($R^2=0.625$) had R^2 -reductions to 0.348 and 0.204 respectively when hospital variables were removed. The combination of prLOS and readmission increased excess costs by \$18,419.

Conclusion: The 90-DPd Deaths and Readmissions are more common than inpatient adverse events of death and prLOS, but prLOS consistently predicts 90-DPd adverse events and excess costs. Hospital cost variance is a major factor in excess costs. Reductions in severe inpatient complications (prLOS) will reduce post-discharge adverse events and costs.

15. MESH WRAPPING FOR SEVERE HEPATIC INJURY: A BENEFICIAL OPTION IN THE TRAUMA SURGEON'S ARMAMENTARIUM

Kennedy R, Brevard SB, Bosarge P, Simmons JD, Frota MA, Baker JA, Pritchett C, Gonzalez RP

University of South Alabama

Objective: The purpose of this study was to assess the efficacy of absorbable mesh wrapping versus peri-hepatic packing for severe hepatic injury.

Methods: During the 10-yr period from 1/01 -12/10, data were collected for all patients that underwent vicryl mesh wrapping for hepatic injury. During the same time period, patients who underwent peri-hepatic packing were blindly matched with mesh wrapped patients. Patients were matched for mechanism of injury, liver injury grade, ISS and age.

Results: 22 patients underwent absorbable mesh wrapping. These patients were matched with 22 peri-hepatic packed patients. The average age in mesh wrap group and hepatic packed group were 32.6 and 36.8 years respectively. There were 14 blunt and 8 penetrating injuries in each group. Average liver injury grade was 3.85 in the mesh group and 3.82 in the hepatic packed group. Average ISS was 40.3 in the mesh group and 37.0 in the packed group. There were 8 (36%) mortalities in the mesh group and 14 (64%) in the packed group ($p=0.03$). Average blood transfusions was 12.1 prbc in the mesh group and 24.5 prbc in the packed group ($p=0.03$). Average number of laparotomies for survivors was 1.3 for the mesh group and 3.1 for the packed group ($p=0.01$). Average hospital LOS was 18.6 days in the mesh group and 47.3 days in the packed group ($p=0.04$).

Conclusion: Mortality rates due to severe hepatic trauma remain high. Mesh wrapping of severe hepatic injuries can significantly decrease mortality rate, transfusion requirements, number of laparotomies and hospital LOS.

16. PAN-BODY CT SCANNING FOR PATIENTS WITH INTRACRANIAL HEMORRHAGE AFTER LOW ENERGY FALLS

Ong AW, Castor L, Figueredo R, Butler S, Fernandez F
Reading Hospital

Objective: We sought to determine if a liberal policy of pan-body computed tomographic scanning (PSCAN) would be useful in patients sustaining low energy falls resulting in intracranial hemorrhage (ICH).

Methods: Patients admitted after falls \geq 3 feet with ICH over a five-year period were studied. Those with a GCS of \geq 14, systolic blood pressure of >100 mmHg, and a normal trauma ultrasound exam were included. A primary outcome was defined as any torso or spine injury requiring surgical or invasive radiologic intervention. A secondary outcome was defined as any torso or spine injury. We assumed that if the proportion of patients with a primary outcome detected on CT was $< 5\%$, then routine PSCAN would not be useful. Proportions were expressed in exact 95% confidence limits.

Results: 347 patients were included. Mean age was 73 ± 18 years. 325 (94%) underwent cervical CT and 254 (74%) underwent CT of the chest, abdomen and pelvis (CAP). Two of 325 with cervical CTs (0.6%, [0.07, 2.2]) and four of 254 with CAP CTs (1.5%, [0.4, 3.9]) had primary outcomes. Primary outcomes included three with gluteal contrast extravasation requiring angioembolization, and one with hemothorax requiring chest drainage. Secondary outcomes were seen in six (1.8%) cervical CTs and in 41 (16.1%) CAP CTs.

Conclusion: A policy of routine PSCAN in patients with ICH after low energy falls is of low yield in identifying injuries requiring invasive intervention. Clinical judgment should dictate the judicious use of CT scanning in this cohort.

17. MULTIVISCERAL RESECTION FOR ADVANCED RECTAL CANCER: OUTCOMES AND EXPERIENCE AT A SINGLE INSTITUTION

Crawshaw B, Augestad KM, Keller DS, Swendseid B, Nobel T, Champagne BJ, Stein SL, Delaney CP, Reynolds HL

University Hospitals Case Medical Center

Objective: To evaluate patients with locally advanced rectal cancers that underwent multivisceral resection and determine recurrence rates, long-term survival, and feasibility of sphincter preservation and restoration of intestinal continuity.

Methods: A retrospective review of an IRB approved database was performed to identify patients who underwent multivisceral resection for locally advanced rectal cancer, defined as rectal resection with en bloc removal of at least one adjacent pelvic structure, with or without primary coloanal anastomosis. Patient demographics, operative details, and clinical data were reviewed over the duration of the follow-up period, defined as time from index operation to date of last recorded clinic visit or discharge.

Results: 61 patients underwent multivisceral resection for rectal cancer over a seven year period. Mean follow-up was 27.3 months (range 0.5-88.7, SD 22.0). 20 patients (32.8%) experienced disease recurrence (7 local (11.5%), 13 metastatic (21.3%)). Overall survival was 70.5% during the follow-up period. Estimated 5-year survival and disease free survival were 43.1% and 50.0% respectively. Thirty-two patients (52.5%) had sphincter-sparing operations with primary colo- or ileo-anal anastomosis with temporary stoma; 29 of these subsequently had intestinal continuity restored. There was no significant difference in mortality or recurrence (overall, local, and metastatic) rates between those with permanent stomas and those who had continuity restored.

Conclusion: Multivisceral resection for locally advanced rectal cancer has acceptable oncologic and clinical outcomes. Sphincter preservation and subsequent reestablishment of gastrointestinal continuity does not impact oncologic outcomes and should be considered in many patients.

18. APPENDECTOMY: A RISK FACTOR FOR COLECTOMY IN PATIENTS WITH CLOSTRIDIUM DIFFICILE

Yong FA, Wang H, Tsai J, Alvarado AM, Estes NC
University of Illinois College of Medicine at Peoria

Objective: The objective of this study is to determine if the appendix, considered an intestinal probiotic source, reduces the risk of severe infection from *C. difficile*, requiring colectomy.

Methods: Following IRB approval, retrospective analysis was done of all patients who required hospitalization for *Clostridium difficile* infection at OSF St. Francis Medical center from 1/1/2007 to 12/31/2011. Data collected included age, gender, previous appendectomy, outcome of hospitalization and if colectomy was required due to severity of disease. Statistical analysis was by Chi-squared and multivariate logistic regression.

Results: There were 507 patients hospitalized for *Clostridium difficile* infection. 33 of which developed sepsis requiring surgical intervention. Of 388 patients without appendectomy; only 20 (5.2%) had refractory sepsis and underwent colectomy. However of 119 patients with previous appendectomy, 13 (10.9%) required colectomy. A reduced severity of disease, indicated by the need of colectomy, occurred for the group of patients with a retained appendix ($p=0.0256$). After age and sex variability were adjusted by multi-variant analysis, the P value was 0.05.

Conclusion: There are known factors for increased severity of *C. difficile* infection such as age and immune suppression. It is critical to recognize that appendectomy may also be a contributing factor. To date, no research exists that addresses a relationship between previous appendectomy and development of *C. difficile* infection. Although the mechanism is unknown, further studies are warranted.

19. ESTABLISHING A COMPLEX SURGICAL ONCOLOGY PROGRAM WITH LOW MORBIDITY AND MORTALITY AT A COMMUNITY HOSPITAL: IS IT POSSIBLE?

Berri RN, Van Dorp DR

St. John Hospital and Medical Center

Objective: The increased emphasis on the multidisciplinary management of gastrointestinal cancer has heightened awareness of monitoring surgical quality and outcomes. While this may be standard practice at designated cancer centers and other tertiary academic institutions, this multidisciplinary, quality-driven approach may not be utilized in community centers. Despite attempts at regionalization, most complex cancer resections continue to be performed at community-based hospitals. In this review, we sought to report our experience with a large volume of complex gastrointestinal resections and describe the framework necessary to develop a multidisciplinary Surgical Oncology program in a community hospital.

Methods: From November 2011 to January 2014, 233 consecutive patients underwent a complex gastrointestinal oncological resection. All cases were performed by a single surgeon (R.B.) at a community hospital in the setting of an established multidisciplinary Surgical Oncology Program. We retrospectively reviewed our prospectively maintained database and evaluated postoperative complications using the Clavien-Dindo grading system.

Results: There was no 0-, 30- or 60-day mortality. Overall morbidity (Grade I-IV) was 32% while grade IV morbidity was only 1.8%. The average length of stay was 9.5 days, reoperation rate was 0.8%, readmission rate was 6%, and only 2% of patients required intraoperative blood transfusion. Furthermore, 65% of cases were prospectively discussed at our multidisciplinary gastrointestinal tumor board conference.

Conclusion: Several studies from academic institutions have shown acceptable morbidity and mortality with complex surgical operations. Our study demonstrates that these operations can be safely performed in the community setting if an experienced multidisciplinary team is assembled.

20. ASSIMILATING ENDOCRINE ANATOMY THROUGH SIMULATION: A PRE-EMPTIVE STRIKE!

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Mayo Clinic - Rochester

Objective: The mean number of thyroid, parathyroid, and adrenal operations performed by USA general surgery graduates are currently 22, 9, and 2, respectively. We sought to determine if self-directed learning of endocrine anatomy could be stimulated with a YouTube video clip.

Methods: This study utilized a 3-hour educational session on back-to-back Friday mornings designed to improve resident knowledge in endocrine anatomy. A 60 second YouTube video clip was made available to an intervention group (n=15) before the session. The video clip primed viewers on general anatomic concepts. A comprehensive 40-point test was administered immediately before (pretest) and immediately after (posttest) both Friday sessions. During the sessions, trainees performed parathyroidectomy, thyroidectomy, and adrenalectomy using low-fidelity models. Pretest and posttest scores were compared between the intervention and control groups.

Results: GS interns (n=26) participated. The intervention group viewed the video 19 times among 12 viewers. Overall mean pretest scores did not differ between viewers and controls [mean (SD): 19.8 (1.9) vs. 20.0 (2.0), $p=0.93$]. Viewers out-performed non-viewers on the posttest [mean (SD): 29.7 (1.3) vs. 24.4 (1.6), $p=0.015$]. Mean scores on the anatomy section of the posttest were higher among viewers than non-viewers [mean (SD): 14.2 (0.9) vs. 10.3 (1.0), $p=0.012$].

Conclusion: Viewing a 60 second video clip resulted in significantly higher posttest scores compared to controls. Interestingly, 20% of the learners given the chance to gain an educational advantage did not seize the opportunity. While pre-emptive, on-line educational strategies may stimulate self-directed learning, the onus to learn remains an individual effort.

21. DOES PRACTICE MAKE PERFECT? RESIDENT EXPERIENCE WITH BREAST SURGERY INFLUENCES EXCISION ADEQUACY

Plichta JK, Perez CB, He E, Bloom A, Abood GJ, Godellas C
Loyola University Medical Center

Objective: The adequacy of breast-conserving surgery (BCS) for invasive or in situ disease is largely determined by the final surgical margins. Although margin status is associated with various clinicopathologic features, the influence of resident involvement remains controversial.

Methods: Patients who underwent BCS for invasive or in situ disease from 2009-2012 were identified. The effects of various clinicopathologic characteristics, resident level, resident experience, and time of year were evaluated.

Results: A total of 502 female patients, median age 62 years, underwent BCS by 5 surgeons, and a resident assisted with most cases (95%), frequently an intern (69%). Final pathology revealed invasive malignancy in 68% of patients. The overall rate of positive margins was 30%. Presence of a resident was not associated with a higher rate of positive margins, and there was no significant difference in rates between interns and higher level residents. While 27% of cases were performed from July to September, this specific time of year was not associated with higher positive margin rates. However, interns assisting specifically during this timeframe had significantly lower rates of positive margins (17% vs. 31%, $p=0.02$), suggesting a possible influence of the attending's involvement. In contrast, margins were more likely to be positive following any given resident's first 3 cases on their breast rotation than throughout the remainder of their rotation (35% vs. 25%, $p=0.03$).

Conclusion: While resident level alone does not influence the adequacy of BCS, experience gained over time does appear to be associated with lower rates of positive margins.

22. THE UTILITY OF FROZEN SECTION EXAMINATION FOR PATIENTS WITH A THYROID NODULE AND “ATYPIA/FOLLICULAR LESION OF UNDETERMINED SIGNIFICANCE”

Posillico SE, Wilhelm SM and McHenry CR

MetroHealth Medical Center

Objective: The Bethesda system for reporting thyroid cytopathology (BSRTC) was introduced to help promote more consistent management of nodular thyroid disease. A new diagnostic category, “atypia/follicular lesion of undetermined significance (A/FLUS)” was created. The purpose of this study was to evaluate the role of clinical and frozen section exam (FSE) for determining extent of thyroidectomy in patients with A/FLUS.

Methods: A retrospective review of all patients operated on for a thyroid nodule and a fine needle aspiration biopsy (FNAB) diagnosis of A/FLUS was completed to determine the role of clinical exam and FSE in intraoperative decision-making. Demographic data, clinical and sonographic findings, cytologic and histopathologic results and extent of thyroidectomy were obtained for all patients.

Results: 120 patients (97 female, mean age=51yrs, range 18-91yrs) with nodular thyroid disease and a FNAB interpreted as A/FLUS underwent thyroidectomy; 18 (15%) had carcinoma. FSE was obtained in 59 (49.2%) patients and altered intraoperative management in 39 (66.1%), limiting the extent of surgery to lobectomy in 35 patients with benign disease and resulting in definitive total thyroidectomy in 4 patients with cancer. Total thyroidectomy without FSE was performed in 61 (50.8%) patients with sonographically confirmed bilateral nodular disease. FSE had a sensitivity of 41.6%, a specificity of 100%, a PPV of 100% and a NPV of 87%.

Conclusion: While previous studies have shown that FSE is not of value for a follicular neoplasm, our results show that ultrasonograph in combination with FSE is of value for determining extent of thyroidectomy in patients with A/FLUS.

23. THE LAPAROSCOPIC APPROACH TO DISTAL PANCREATECTOMY FOR DUCTAL ADENOCARCINOMA RESULTS IN SHORTER LENGTHS OF STAY WITHOUT COMPROMISING ONCOLOGIC OUTCOMES

Sharpe SM, Talamonti MS, Bentrem DJ, Roggin KK, Prinz RA, Marsh RDW, Stocker SJ, Winchester DJ, Winchester DP, Baker MS
NorthShore University HealthSystems

Objective: The benefits of the laparoscopic approach to premalignant pancreatic body/tail tumors are established. No well-powered studies evaluate the oncologic equivalence of laparoscopic distal pancreatectomy (LDP) to open distal pancreatectomy (ODP) for ductal adenocarcinoma (DAC).

Methods: The National Cancer Data Base was used to compare clinical, pathologic, and demographic characteristics for patients undergoing LDP for DAC to those undergoing ODP between January 2010 and December 2011. Multivariate regression analysis (MVR) was done to determine factors independently associated with lymph node count, margin status, hospital stay, readmission, and 30-day mortality.

Results: 1,190 patients underwent distal pancreatectomy for DAC: 193(16.2%) LDP and 997 (76.6%) ODP. Compared to ODP, patients undergoing LDP were older (68.7 ± 10.03 vs. 66.4 ± 10.66 years, $p=0.005$), more likely treated in academic centers (68.4 vs. 56.8% , $p=0.003$), and demonstrated shorter hospital stays (6.9 ± 4.9 vs. 8.8 ± 7 days, $p<0.0001$). Charlson score, demographic data, tumor size, lymph node count (14.5 ± 11.57 vs. 13.7 ± 13.34 , $p=0.397$), rates of margin negative resection (85.5 vs. 77.9% , $p=0.134$), 30-day unplanned readmission (7.3 vs. 8.7% , $p=0.241$), and 30-day mortality (1.6 vs. 2% , $p=0.486$) were identical between groups. MVR identified age, Charlson score, and surgical approach as independent determinants of hospital stay, with LDP having a lower probability of prolonged length of stay (OR 0.46, [0.322, 0.660], $p<0.001$) relative to ODP. There was no association between surgical approach and lymph node count, margin status, readmission, or 30-day mortality.

Conclusion: LDP for DAC results in lymph node counts and rates of margin negative resection, readmission, and 30-day mortality identical to those for ODP but results in shorter lengths of stay.

24. EXTENDED DISTAL PANCREATECTOMY FOR PANCREATIC ADENOCARCINOMA WITH SPLENIC VEIN THROMBOSIS AND/OR ADJACENT ORGAN INVASION

Roch AM, Singh H, House MG, Turner AP, Ceppa EP, Zyromski NJ, Nakeeb A, Schmidt CM

Indiana University School of Medicine

Objective: Adenocarcinoma of the pancreatic body/tail is usually diagnosed at an advanced stage. Patients with associated vascular thrombosis or adjacent organs invasion are suboptimal candidates for resection. We hypothesized that extended distal pancreatectomy (EDP) for locally advanced adenocarcinoma is associated with survival benefit.

Methods: We retrospectively reviewed a prospective database. Patients who underwent distal pancreatectomy (DP) for adenocarcinoma at a single academic institution (1996-2011) and had at least a 2-year follow-up were included. Surgical outcome, median disease-free (DFS) and overall survival (OS) were analyzed.

Results: Among 680 DP, 93 were indicated for pancreatic adenocarcinoma. Median follow-up was 53 months. Splenic vein thrombosis was present in 26 and did not significantly affect morbidity, mortality, or survival (DFS 14.4vs13.2months, $p=0.7$; OS 19.2vs18 months, $p=0.9$) following DP.

Standard DP (SDP) was performed in 70 patients whereas 23 underwent EDP. There was no significant difference in morbidity and mortality of EDP versus SDP, with no impact of type and number of organs resected. Patients with EDP had a survival comparable to patients with SDP (DFS 18vs12 months, $p=0.8$; OS 22.8vs16.8 months, $p=0.6$). There was no difference in survival between EDP patients with pathologic evidence of adjacent organ invasion and those without. Margin status, recurrence rate, and survival were not different in the EDP subgroup with pathologic evidence of adjacent organ invasion versus patients with SDP.

Conclusion: Splenic vein thrombosis in patients with adenocarcinoma of the pancreatic body/tail does not influence survival following DP. EDP is safe and should be considered in fit patients with locally advanced adenocarcinoma.

25. TUMOR SIZE AS A PROGNOSTIC INDICATOR IN COLON CANCER, AN ANALYSIS OF THE NATIONAL CANCER DATABASE

Saha S, Shaik M, Berbiglia L, Johnston G, Dhar V, Wiese D, Singh T, Arora M
McLaren Medical Center, Flint

Objective: Tumor size (TS) is a prognostic indicator in breast, renal and lung cancers, but not in colon cancer (CCa). Tumor depth of invasion (T), nodal status (N) and metastasis (M) are risk factors (RF) for poor prognosis in CCa. We predicted that TS is an independent RF for death in CCa. T

Methods: Tumor size separated into 4 groups (<2cm, 2-4cm, 4-6cm, and >6cm), TNM stage and grade were collected from the National Cancer Data Base for 298,021 patients from 1998 to 2010. Data analysis included Spearman's rho correlation and Kaplan Meier estimation of 5-yr overall survival (5yrOS), Cox model calculation of hazard ratios (HR), and Chi-square calculation of p value.

Results: TS was positively correlated with grade, T, N, and TNM staging classification, and negatively correlated with 5yrOS (66%, 52%, 46%, and 41% for each TS respectively). Most patients had TS between 2-4cm, 39%. Of the 2-4cm tumors, 53% were T3, 62% N0, and 58% TNM stage I or II. Of TS >4cm, 65% were T3, 48-51% were N1+, 14% stage I, 31% stage II, 24% stage III, and 31% stage IV. TS of 4-6cm and >6cm accounted for 29% and 18%, and were associated with a 23% and 70% risk of death in 5yrs, with a HR of 1.23 (95%CI 1.14-1.34) and 1.70 (95%CI 1.50-1.80), respectively.

Conclusion: TS >4cm is a RF for death in CCa and should be considered in treatment. Further study is warranted to better delineate the role of TS in prognosis and staging of CCa.

26. PRE-OPERATIVE SIMULTANEOUS FRACTIONATED CISPLATIN AND RADIATION THERAPY IN ADVANCED OPERABLE STAGE III AND IV SQUAMOUS CELL CARCINOMA (SCCA) OF THE HEAD AND NECK

Davis M, Tyrrell J, Slotman GJ

Inspira Health Network

Objective: To evaluate the efficacy and toxicity of pre-operative simultaneous radiation therapy and fractionated Cisplatin (CTRT: 20mg/M2/4 days q3 weeks) in Stage III/IV head and neck SCCA.

Methods: Records of 143 CTRT and 48 patients treated with other surgery/radiotherapy/chemotherapy (CONTROL) were reviewed with Chi-squared analysis.

Results: Oral cavity/pharynx (44.7% CTRT vs 9.3% CONTROL) and larynx (14.6% CTRT vs 37.5% CONTROL) primary sites varied CTRT/CONTROL ($p < 0.01$). CONTROL chemotherapy: Taxol/carboplatin, cisplatin, carboplatin, Gemzar, doxorubicin, cetuximab, and taxotere. Grade 2-5 toxicity: 52% CONTROL vs 7% CTRT ($p < 0.0001$). No CTRT had Grade V. Complete clinical response (CCR): 69% CTRT vs 32% CONTROL ($p < 0.01$). In biopsied CCR patients, 97% CTRT vs 80% CONTROL were tumor-free (HCR). Overall, HCR was 67% (92/138) CTRT vs 27.5% (8/29) CONTROL ($p < 0.001$). In CTRT 68.5% (98) had no surgery, 13% (19) had only radical neck dissection, and 18% (26) needed curative resections, vs 68.8% (31), 4% (2), and 27% (12) CONTROL. Eleven (23%) CONTROL had surgery as first treatment. Nine (19%) CONTROL died of progressive disease without surgery. Tumors recurred in 33% CTRT vs 66% CONTROL ($p < 0.001$). In CTRT 96% (88/92) HCR did not recur vs 87.5% (7/8) control. Distant metastases recurrence : 2% (1/44) CTRT vs 61% (14/23) CONTROL ($p < 0.001$). Survival was 23.5%/33% CTRT/CONTROL but 59% CTRT died disease free vs 2% CONTROL ($p < 0.0001$).

Conclusion: CTRT increases CCR, HCR, and disease-free status with lower recurrence and reduced toxicity versus CONTROL. CTRT/HCR recurrence is rare. CTRT is first line treatment for Stage III/IV head and neck SCCA.

27. INTUSSUSCEPTION IN ADULTS: RISK FACTORS, CAUSES AND MANAGEMENT

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Marshfield

Objective: The purpose of this study was to evaluate the management of adult intussusception at a single institution and determine if predictors of identifying a lead point that requires resection can be identified.

Methods: Review of patients from 2003 to 2013 who were diagnosed with intussusception. Inclusion criteria include patients ≥ 18 , with symptomatic intussusception. Incidental, asymptomatic patients were excluded.

Results: Of 190 patients diagnosed with intussusception, 93 (49%) had transient, asymptomatic intussusception that resolved during CT scan and were excluded from further analysis. For the remaining patients, mean age (S.D.) was 49 (19) years (58% female) and 51% had a prior abdominal operation. All patients underwent CT scan; however, only 92% were diagnostic, 8% were diagnosed intraoperatively. The most frequent site for the intussusception was small bowel (74%) followed by colocolic (10%), ileocecal (9%) and ileocolic (7%). 71 patients (73%) were managed surgically, and the remaining 27% were managed nonoperatively. Moreover, 2 patients were managed nonoperatively initially but required exploration due to persistent symptoms. Resection was performed in 61% of the surgical patients, the rest had reduction only. Recurrence rate was 7%. Pathology identified a tumor in 36% of the patients, 46% of which was a malignant; other pathological findings included inflammation (8%) and ischemia (4%). Mortality rate was 3%.

Conclusion: Though adult intussusception traditionally requires an operation to rule out a pathologic lead point, more than half of cases identified on imaging were transient in our study. Furthermore conservative management was usually successful when attempted.

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St. John Hospital and Medical Center

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Poster #2. EFFECTS OF ACGME INTERN 16 HOUR DUTY PERIODS ON THE ACADEMIC CURRICULUM OF SURGICAL INTERNS

Vavra JM, Edhayan E

St. John Hospital and Medical Center

Objective: The ACGME has mandated 16 hour duty periods for interns starting July 2011. The ACGME also mandates that interns must have 8 hours and should have 10 hours free of duty between duty periods. Residents after PGY-1 have a maximum duty period of 24 hours. Thus, interns work shorter periods and asymmetric schedules with the rest of the program. The effect of these mandates on the academic curriculum of interns has not been studied. The ACGME 16 hour intern duty period will lead to significant reduction in intern attendance at lectures.

Methods: The call schedule of interns and PGY-2 residents from the 2012-13 academic year was matched to the lecture schedule at our institution. Attendance at educational conferences between interns and PGY-2 residents were compared. The number of conferences missed by interns due to the night float schedule was tabulated.

Results: On average, surgical interns took 8.57 weeks of night float. Interns attended 242 lectures (263 lecture hours) and PGY-2 residents attended 290 lectures (316 lecture hours) on average. Interns missed 47.7 lectures and 52.6 lecture hours on average, which equates to 16.45% of the lectures and 16.66% of the lecture hours when compared to PGY-2 residents ($P < 0.0005$).

Conclusion: Duty hour restrictions of the intern class create a wide disparity in the educational opportunities that they receive. The ACGME should consider the effects on the intern academic curriculum when mandating duty hours.

Poster #3. DOES LAPAROSCOPIC DISTAL PANCREATECTOMY REDUCE READMISSIONS?

Parikh JA, Bendix SD, Jabbar F, Jacobs MJ
St. John Providence Hospital

Objective: Laparoscopic distal pancreatectomy is frequently done for benign and malignant diseases of the pancreatic body and tail. Established advantages include shorter hospital stay and reduced pain scores. A recent study found an increased rate of readmission after laparoscopic distal pancreatectomy. Given the limited existing data, we sought to examine readmissions after laparoscopic versus open distal pancreatectomy at a community-based teaching hospital.

Methods: Medical records for all patients undergoing distal pancreatectomy at St. John Providence Hospital from January 2003 to December 2013 were reviewed. Demographic data, intraoperative factors, and 90-day readmissions were monitored.

Results: Eighty-one patients underwent distal pancreatectomy during the study period (40 laparoscopic). Median age was 62 years. Two-thirds of the patients were female. Mean operative time was significantly longer in the open group (182 ± 63 minutes vs. 150 ± 44 minutes, $p < 0.01$). Similarly, there was a significantly higher mean bloodloss in the open group ($655\text{mL} \pm 399\text{mL}$ vs. $130\text{mL} \pm 194\text{mL}$, $p < 0.01$). Pancreatic fistula rates were comparable. Average length of stay was significantly lower in the laparoscopic group (4.6 ± 1.3 days vs. 8.7 ± 6 days, $p < 0.01$), as was the number of readmissions at 90 days (5 vs. 9, $p < 0.05$). Furthermore, the average length of stay during readmission was also significantly lower in the laparoscopic group (4 ± 2 days vs. 11 ± 15 days, $p < 0.05$).

Conclusion: Readmission rates after laparoscopic distal pancreatectomy are significantly lower compared to open distal pancreatectomy. Furthermore, length of stay during readmission is significantly lower when surgery is performed laparoscopically.

Poster #5. RENAL RESPONSE FOLLOWING PERIOPERATIVE KETOROLAC ANALGESIA IN LIVING KIDNEY DONATION

Li NY, Tong L, Bhattacharya SD, Barbas AS, Wai PY, Kuo PC
Loyola University Medical Center

Objective: To analyze the long-term effects of perioperative ketorolac, a potentially nephrotoxic NSAID, amongst patients undergoing living donor nephrectomy for kidney transplantation (LDN).

Methods: A retrospective chart review was performed for patients undergoing LDN at two institutions. Patient age, sex, height, weight and long-term renal function were collected and analyzed. Patients managed with ketorolac (n=298; KET) were compared with patients managed only with opioids (n=163; OPI) for perioperative analgesia using linear regression models with repeated measures.

Results: OPI patients were older than KET patients (45 ± 12 yrs vs 41 ± 11 , $P<0.001$), but preoperative creatinine were identical (0.9 ± 0.2 mg/dL). A modest but significant increase in creatinine was detected in KET compared to OPI on POD#2 (1.51 ± 0.42 mg/dL vs 1.39 ± 0.31 mg/dL, $P=0.02$). With time, the elevation in creatinine resolved and were comparable between groups at week one (1.38 ± 0.33 mg/dL vs 1.34 ± 0.38 mg/dL), month one (1.45 ± 0.29 mg/dL vs 1.37 ± 0.31 mg/dL), year one (1.33 ± 0.38 mg/dL vs 1.27 ± 0.26 mg/dL), and year three (1.40 ± 0.26 mg/dL vs 1.21 ± 0.28 mg/dL). Estimated glomerular filtration rate (eGFR) were similar preoperatively (87.44 ± 25.27 ml/min/1.73m² vs 88.65 ± 36.34 ml/min/1.73m²) and exhibited a comparable decrease in both groups at POD#2 (49.73 ± 16.39 ml/min/1.73m² vs 53.43 ± 16.14 ml/min/1.73m²), week 1 (53.84 ± 15.92 ml/min/1.73m² vs 55.76 ± 17.94 ml/min/1.73m²), month one (49.51 ± 11.89 ml/min/1.73m² vs 52.28 ± 13.11 ml/min/1.73m²), year one (59.32 ± 22.44 ml/min/1.73m² vs 57.32 ± 15.34 ml/min/1.73m²), and year three (50.87 ± 11.25 ml/min/1.73m² vs 56.44 ± 11.26 ml/min/1.73m²). No significant interactions were found between ketorolac use and age, sex, height, or weight.

Conclusion: In the largest study of living kidney donors with the longest follow-up, we show that use of perioperative ketorolac in LDN does not adversely affect post-donation renal function.

Poster #6. PREDICTORS OF CLAVIEN 4 COMPLICATIONS AND MORTALITY AFTER NECROSECTOMY: ANALYSIS OF 1155 PATIENTS IN THE NSQIP DATABASE

Bakey S, Kolbe N, Louwers L, Falvo A, Blyden D, Patton P, Rubinfeld IS
Henry Ford Hospital

Objective: Identify specific preoperative predictors for the development of serious complications (Clavien level 4) and mortality within a large national database for patients undergoing necrosectomy.

Methods: The American College of Surgeons National Surgical Quality Improvement (NSQIP) participant use files were reviewed from 2005-2012 to identify patients who underwent a pancreatic necrosectomy using current procedural code (CPT) 48105. Preoperative variables including sex, American Society of Anesthesiologist (ASA) class, functional status, history of congestive heart failure, myocardial infarction, alcohol use, steroid use, and weight loss were identified. Laboratory values were reviewed as well. Postoperative complications were stratified into Clavien 4 complications (septic shock, need for dialysis, pulmonary embolism, myocardial infarction, cardiac arrest, mechanical ventilation, reintubation) and mortality. Univariate and multivariate analysis was performed.

Results: A total of 1155 patients underwent a pancreatic necrosectomy in this seven-year time frame, 71% male and 29% female. Overall, 42% of patients experienced a Clavien 4 complication. Mortality rate was 9.5%. Multivariate analysis of Clavien 4 complications and mortality demonstrated independent significance of frailty (Clavien 4 OR 59.1, 95%CI 17.5-206.3, $p<0.001$, mortality OR 13.2, 95% CI 2.45-69.2, $p=0.002$) and emergent surgery status (Clavien 4 OR 3.4, 95% CI 2.4-4.7, $p<0.001$, mortality OR 2.5, 95% CI 1.6-4.0, $p<0.001$).

Conclusion: This study has identified specific preoperative variables that place patients at increased risk of Clavien 4 complications and mortality after necrosectomy. Identification of these patients can aid in selection of appropriate treatment strategies, and allow for more informed preoperative discussion regarding surgical risk.

Poster #7. CRITICAL ASSESSMENT OF SURGICAL PALLIATION IN UNRESECTABLE PANCREAS CANCER

O'Halloran EB, Gange W, Berger E, Abood G, Pappas SG, Aranha GV
Loyola University Medical Center

Objective: While surgical palliation (SP) for unresectable pancreatic adenocarcinoma of the head (PAC) has become less common with the introduction of high fidelity imaging and endoscopic palliation, SP remains necessary for those whose disease is unresectable at surgical exploration. Recent data for patients undergoing SP for PAC is limited; we aim to investigate the effectiveness of SP in patients with unresectable PAC.

Methods: A retrospective review of a single high volume institution was conducted. Between June 1995 and July 2013, 905 patients were diagnosed with PAC and 522 were taken for operative exploration. Of these, 297 underwent resection and 225 underwent SP.

Results: The mean age of the cohort was 67.5 years and included 120 (53.3%) males. The most common preoperative symptoms were pain (74.7%), jaundice (72.9%), weight loss (60.4%), and vomiting (28.4%). The majority (56.4%) of patients underwent double bypass with gastrojejunostomy and choledochojejunostomy or hepaticojejunostomy; 55 (24.4%) underwent biliary bypass alone and 30 (13.3%) underwent gastrojejunostomy alone. Ten (4.4%) died within 30 days of operation, 12 (5.3%) experienced major complications, and 43 (19.1%) experienced minor postoperative complications based on the Clavien-Dindo grading system. Postoperatively, 76.6% of patients experienced pain relief, 98.7% were relieved of jaundice, and 81.0% had resolution of vomiting. The median survival postoperatively was 208 days; 74 (32.9%) underwent adjuvant chemoradiation while 50 (22.2%) had adjuvant chemotherapy alone.

Conclusion: Procedures performed for palliation of unresectable PAC resulted in providing the majority of patients with relief from pain, jaundice, and vomiting while carrying a low complication rate.

Poster #8. INTERACTION OF RACE WITH WEIGHT LOSS AND RESOLUTION OF OBESITY CO-MORBIDITIES IN PATIENTS UNDERGOING LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS (LRYGB): AN ANALYSIS OF 83,059 BOLD DATABASE PATIENTS

Emrich JS, Slotman GJ
Inspira Health Network

Objective: To identify racial variations in weight loss and resolution of obesity co-morbidities after LRYGB.

Methods: Data from 83,059 Surgical Review Corporation BOLD database patients who underwent LRYGB was analyzed retrospectively in five groups: African-American (n=9,055), Caucasian (n=63,352), Hispanic (n=6,893), Asian (n=198), and Other (Pacific Islander, Native American, or >1 race listed in BOLD; n=3,561). Outcomes analysis used General Linear Models that included baseline and post-operative data, and were modified for binomial distribution of dichotomous variables.

Results: Weight and BMI were higher in African-Americans versus Caucasians, Hispanics, Other (12 months, $p<0.0001$). Hypertension persisted increased among African-Americans versus Caucasians, Hispanics, Other through 24 months ($p<0.01$). Caucasian cholelithiasis (18 months, $p<0.05$), abdominal panniculitis (12 months, $p<0.01$), and depression (24 months, $p<0.05$) continued higher than other races. GERD was highest in African-Americans and Caucasians. Dyslipidemia affected Caucasians, African-Americans, and Other most (12 months, $p<0.05$). Hispanic depression was lowest (24 months, $p<0.05$). Other had highest stress urinary incontinence (12 months, $p<0.05$). Racial differences in diabetes, liver disease, obstructive sleep apnea, obesity hypoventilation syndrome, gout, back and musculoskeletal pain, leg edema, alcohol use, and non-depression psychological issues were not significant beyond 6 months. Resolution of angina, CHF, pulmonary hypertension, and polycystic ovarian disease did not vary by race.

Conclusion: LRYGB improves obesity weight and co-morbidity outcomes overall, but long-term treatment effects vary by race. African-American weight and hypertension, and African-American/Caucasian GERD, and dyslipidemia resolve least. Caucasian abdominal issues and depression dominate. Racial variations in many obesity co-morbidities disappear by 12 months post-operatively.

Poster #9. MORTALITY AND MORBIDITY OF AGGRESSIVE CYTOREDUCTIVE SURGERY AND HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY (HIPEC) PERFORMED AT A COMMUNITY HOSPITAL: IS IT SAFE?

Yoon WJ, Berri RN

St. John Hospital and Medical Center

Objective: While Cytoreductive surgery (CRS) with hyperthermic intraperitoneal chemotherapy (HIPEC) is being increasingly used in the management of isolated peritoneal dissemination from gastrointestinal malignancies, data on the incidence of postoperative complications at newly established centers in the community setting remains limited. The aim of this study was to investigate and report morbidity and mortality of CRS plus HIPEC performed at a community hospital.

Methods: Between October 2011 and January 2014, out of 66 consecutive CRS performed for selected peritoneal surface malignancies, 44 patients received intraoperative HIPEC after maximal CRS. All cases were performed with closed abdominal technique using mitomycin C by a single surgeon at a community hospital in the framework of a recently established multidisciplinary Peritoneal Malignancies Program. We retrospectively reviewed our prospectively maintained database and evaluated postoperative complications using the National Cancer Institute grading system.

Results: There was no 0-, 30- or 60-day mortality. A total of 23 complications were observed in 18 patients. Overall grade I /II and grade III/IV morbidity were 41% and 11%, respectively. The most frequent complication was hematologic toxicity: anemia (n=4) and leukopenia (n=2). The average length of stay of all patients undergoing CRS with HIPEC was 9.9 days. There were no patients who required reoperation. The readmission rate was 3%.

Conclusion: CRS and HIPEC can be performed safely in the community setting with morbidity and mortality comparable to those of large tertiary centers that are in acceptable rates, if strict eligibility criteria are utilized and an experienced multidisciplinary team is assembled.

Poster #10. OVERALL FITNESS IS ASSOCIATED WITH REDUCTION IN MORTALITY AMONG MALES WITH SEVERE INJURY

Raines A, Garwe T, Rust K, Verity P, Motghare P, Adeseye A, Irvan J, Havron W, Albrecht R, Lees J

Oklahoma University Health Sciences Center

Objective: Patients' overall pre-trauma physical condition largely determines how well a patient may recover from significant trauma. We hypothesized that the size of a patient's psoas muscle would act as a surrogate marker for overall health and physiologic reserve by which it would positively predict survival rates.

Methods: This was a retrospective cohort study of adult trauma patients treated during 2011 and 2012 at a single center. Inclusion criteria was age >15 years, injury severity score (ISS) >16, hospital stay >24 hours, and computed tomographic (CT) evaluation of the abdomen/pelvis on the day of presentation. Analysis revealed little variability existed with regards to psoas muscle size in women across all ages, ISS, and outcomes; as such, women were excluded from our overall analysis. Also excluded were patients with a 4th lumbar vertebral body fracture. Admission CT scans were evaluated by a single radiologist. Psoas measurements were made at the 4th lumbar vertebrae and measured transversely on axial images.

Results: Patients meeting inclusion criteria totaled 272. After adjusting for ISS and intubation status, it was found that there was a 6% reduction in mortality rates for every one millimeter increase in psoas size (OR = 0.942; CI 95% 0.895-0.992; p = 0.0228).

Conclusion: Larger psoas muscle size in severely injured male trauma patients positively correlates with improved survival rates. Each millimeter increase in size confers a 6% reduction in mortality. Additionally, we concluded that little psoas muscle size variability exists in females who met inclusion criteria for this study.

Poster Abstracts continued

Poster #11. EVIDENCE BASED PRACTICE IN SURGERY

Patel PP, Nally MC, Myers JA, Millikan KW, Deziel DJ, Luu MB
Rush University Medical Center

Objective: Surgeons' self-reported data has demonstrated low compliance with evidence-based practice in general surgery. Reports on evidence-based medicine in surgery using patient care data are lacking. The purpose of this study is to evaluate what fraction of surgical practice is based on established guidelines.

Methods: A single institution retrospective chart review was performed to identify procedures completed between 2007 and 2013 with associated evidence-based guidelines. Specific procedures are appendectomy (n=400), laparotomy (n=573), hemicolectomy (n=355), Nissen fundoplication (n=82), and inguinal hernia repair (n=800). We analyzed preoperative care, postoperative care, and intraoperative techniques to assess compliance to evidence-based guidelines.

Results: Overall 79.8% of decisions were supported by evidence-based medicine. Recommendations with greater than 90% compliance included ligating the short gastrics during Nissen fundoplication (100%), utilizing mesh for inguinal hernia repair (97.3%), running closure of fascia after laparotomy (94.9%), closing skin after open appendectomy (94.1%), no drain placement after right hemicolectomy (97.7%), no nasogastric tube placement after left hemicolectomy (92.8%), and no routine preoperative chest x-ray for young patients with appendicitis (90.2%). Lower levels of compliance were noted with oral feeding on first postoperative day after elective colectomy (82%), utilizing staples for skin closure after laparotomy (79.8%), and no polyethylene glycol preparation before elective colectomy (74.1%).

Conclusion: Surgeons are nearly 80% compliant in making clinical decisions according to evidence-based medicine guidelines, which is higher than previously self-reported 60% compliance. Physician discretion and individual patient factors likely affect compliance.

Poster #12. CONVERSION FROM LAPAROSCOPIC TO OPEN COLECTOMY IN SURGICAL RESECTION OF COLON CANCER

Sticca RP, Barker KR, MacGregor JM, Alberts SR, Mahoney MR, Nelson G, Pockaj BA
University of North Dakota

Objective: To determine the factors associated with conversion of laparoscopic colectomy to open colectomy in patients with colon cancer.

Methods: Surgical data was reviewed for all patients randomized onto a national phase III clinical trial for adjuvant therapy in stage 3 colon cancer [North Central Cancer Treatment Group (NCCTG) trial N0147]. Colon resections were grouped as open (traditional laparotomy) or minimally invasive, including: laparoscopic, laparoscopic assisted, hand assisted, and laparoscopic converted to open. Patient demographics and operative reports of all minimally invasive cases were analyzed for factors associated with conversion. Statistical methods included nonparametric methods, categorical analysis, and logistic regression modeling.

Results: 3,393 evaluable patients were accrued between 2004-2009, 2115(62%) underwent open colectomy and 1278(38%) had minimally invasive procedures. Of the minimally invasive procedures, 26%(330) were laparoscopic, 33%(417) laparoscopic assisted, 27%(343) hand assisted, and 15%(188) laparoscopic converted to open. Univariate analysis of patient, tumor and technical factors revealed that tumor adherence, obstruction, perforation, location, and body mass index were all associated with conversion ($p<0.02$). Multivariate analysis revealed tumor adherence, perforation and location were associated with conversion ($p<0.01$). The majority (88%) of reasons for conversion were tumor related (size, adherence, localization, delivery) with 11% technical including hemorrhage, anastomosis problems, visceral injury, or equipment malfunction.

Conclusion: Tumor related factors, including adherence, perforation and location are the most common reasons for conversion of laparoscopic to open colectomy in colon cancer. Preoperative evaluation of these factors may allow surgeons to better plan for the optimal approach to colectomy for colon cancer.

Spectacular Problems in Surgery continued

1. OPEN TRANS-DIAPHRAGMATIC CHOLECYSTECTOMY VIA A RIGHT THORACOTOMY - THERE IS A HAMMER FOR EVERY KIND OF NAIL

Wojnarski CM, Robke JM, Wilhelm SM

University Hospitals Case Medical Center

A 52 year-old female with a history of remote trauma requiring laparotomy presented with acute cholecystitis. She was transferred from an outside hospital following failed laparoscopic converted to attempted open cholecystectomy. The referring surgeon reported an inability to reach the gallbladder. CT scan revealed a significantly elevated, right hemidiaphragm suspicious for diaphragmatic hernia. Percutaneous cholecystostomy was performed and her acute cholecystitis resolved. Six weeks later, to definitively treat her symptomatic cholelithiasis, a unique combined approach between Thoracic and General Surgery was attempted utilizing VATS, a right thoracotomy, and an intra-operative, ultrasound guided trans-diaphragmatic cholecystectomy.

2. DISMOUNTED COMPLEX BLAST INJURY

Morris TJ, Bernard JD

Regions Hospital

24 year old male involved in a complex attack initiated by a pressure plate IED. He sustained three limb amputations and multiple blast and fragment wounds. Bleeding was controlled with tourniquets; he received damage control resuscitation and was rapidly evacuated to a Role 3 hospital by the Mobile Emergency Response Team. In the ER he was resuscitated with PRBC plus FFP and rapidly transferred to surgery. He underwent a damage control procedure with repair of multiple bowel perforations, pelvis packing, wound debridement and three limb amputation. He was stabilized in the ICU and subsequently had five additional procedures to manage his injuries.

3. INTRAOPERATIVE DOUBLE GALL BLADDER AND ITS MANAGEMENT

Gupta A, Subhas G, Parikh JA, Jacobs M

Providence Hospital and Medical Centers

Laparoscopic cholecystectomy was performed in 27-year-old male for biliary colic. Prior imaging with CT-scan and Ultrasound did not show a duplicated gallbladder. Intraoperatively after ligation of cystic artery and duct an additional structure was seen on its medial aspect. Intraoperative cholangiogram confirmed the patency of intra-hepatic and extra-hepatic biliary ducts. Subsequent dissection around this structure revealed a second gallbladder with cystic duct and artery. Pathological analysis confirmed the presence of two gallbladders with features of chronic cholecystitis. CT scan and Ultrasound imaging can miss double gallbladder, and it is important to use cholangiogram to identify structural anomalies and avoid complications.

Spectacular Problems in Surgery continued

Spectacular Problems 4. SEVERE DISSEMINATED STAPH AUREUS INFECTION; A SURVIVAL STORY

Hallowell PT, Isbell J, Hranjec T, Sawyer R
University of Virginia

We present the case of a 22 year old male admitted with MRSA sepsis following drainage of a subcutaneous abscess, complicated by septic emboli. We will discuss management of his initial course, his necrotizing pneumonia, Cardiomyopathy, and several ICU complications. He was treated with ECMO and multiple surgical procedures, through the collaboration of several teams he eventually recovered and is alive today.

5. RESECTION OF GASTROHEPATIC FISTULA AFTER TACE FOR HEPATOCELLULAR CARCINOMA

Ilyas S, Ouellette JR

Wright State University Boonshoft School of Medicine

56 year-old gentleman with multifocal HCC initially treated with sorafenib followed by TACE therapy. After three cycles of TACE he developed abdominal pain and fevers. He was found to have a large gastrohepatic fistula. He underwent en bloc resection of left lobe HCC with partial gastrectomy, partial colectomy, distal pancreatectomy, splenectomy and partial diaphragm resection. His post-operative course was complicated by abdominal compartment syndrome treated by decompressive laparotomy. Patient eventually recovered. He is currently receiving treatment for HCC two years after resection of the fistula. This is the second case of a gastrohepatic fistula following TACE to be reported in the literature.

6. AN UNUSUAL CASE OF BILIARY BEZOAR CAUSING SMALL BOWEL OBSTRUCTION IN A PATIENT WITH AMPULLARY DIVERTICULUM AND STAPLED GASTROPLASTY

Chapital AB, Ashfaq A, Madura J
Mayo Clinic - Phoenix

Primary small bowel bezoars constitute 0.44% of small bowel obstructions (SBO). We report a gentleman who presented with lower abdominal pain. Initial examination revealed an elevated white count and serum lipase. CT scan of the abdomen/pelvis with contrast was consistent with pancreatitis, cholelithiasis and a stable ampullary diverticulum. Patient underwent cholecystectomy and represented to the hospital with biliary emesis. Small bowel follow through suggested SBO. Ultimately patient underwent exploratory laparotomy with small bowel resection after a large mass was encountered in small bowel. Final pathology revealed a 3 cm biliary bezoar causing small bowel obstruction and stercoral ulceration

7. UNUSUAL MECHANISM FOR BLUNT THORACIC AORTIC INJURY

Chang MC, Wahl WL, Brandt MM

Saint Joseph Mercy Hospital

Blunt traumatic injuries to the thoracic aorta are not uncommon after frontal- or side-impact motor vehicle crashes. While often fatal, less severe intimal or periadventitial defects or hematomas have been diagnosed. We present two cases of blunt thoracic aortic injuries occurring after rear impact motor vehicle collisions. Both patients had thoracic aortic hematomas and associated thoracic vertebral body fractures. We posit that the impact caused the seats to accelerate forward. However, the pelvis was held in place by the seatbelt as the head and upper body extended the spine. The seatback then acted as a fulcrum leading to the injuries.

8. THE DIAGNOSTIC AND SURGICAL CHALLENGES OF MASSIVE LOCALIZED LYMPHEDEMA

Lucas CE, Jabbar F, Hamoudeh Z, Bachusz R
Wayne State University/Detroit Medical Center

Objective: Massive localized lymphedema (MLL) is a rare entity first described in 1998 in patients with morbid obesity; the incidence is rising with the increased prevalence of morbid obesity. This report defines the clinical presentation and surgical challenges in six patients with MLL.

Methods: The MLL in six patients with morbid obesity (weight range 270-585 lbs.) involved the thigh in three patients, the calf in one patient, and the abdomen in two patients. The time from onset to presentation averaged three years (range 1-8 years). Two thigh lesions precluded ambulation since both legs could not be on the ground simultaneously; the two abdominal lesions were too heavy to permit ambulation.

Results: The surgical excision required the use of pulleys to elevate the MLL tissues which, on excision, weighed between 24 and 78 lbs. A long oval horizontal incision and a long transverse incision were used for the two abdominal lesions. Long horizontal oval limb incisions with multiple perpendicular cross incisions had to be used to excise MLL in the four limb lesions. In two cases, the vessel sealing device was employed successfully for dissecting subcutaneous edematous tissue. Loose wound closure permitted postoperative lymph leakage which continued for three to eight weeks. The histology demonstrated fibrotic lymphatic tissue with vascular and lymphatic proliferation and edema; all patients did well.

Conclusion: MLL is rare and is best treated by surgical excision facilitated by pulleys and imaginative incisions to obtain primary closure. Long-term follow-up is necessary to assess for subsequent liposarcoma or angiosarcoma.



LECTURES

Scott Warner Woods, 1927 - 2003



When attending a Midwest Surgical Association meeting, it takes little effort to almost believe that the haunting notes of a bagpipe still echo in the air. For many years, that sound accompanied the sight of a kilt-clad Scott Warner Woods as he stood wearing his trademark hand-tied tartan bow tie and played to announce the beginning of another annual meeting.

Scott W. Woods, except for his brief stint in Korea with the U.S. Army at the end of World War II, was a life-long Michiganiaan. He was born in Detroit and in 1950 he received his undergraduate degree from the University of Michigan. He then attended Wayne State University College of Medicine and graduated in 1954. After an internship at Wayne County General Hospital, he completed a surgical residency at Wayne State University in 1960. That same year, he achieved

his second greatest accomplishment when he established his first solo practice in Ypsilanti, MI. By 1964, he managed to attain his life's greatest accomplishment when he married his beloved Bette.

Second only to his family, Scott loved the Midwest Surgical Association best and served it tirelessly. He was Treasurer of the Association for a decade before ascending to its presidency in 1986. He championed the controversial decision to bring the Annual Meeting to Mackinac Island. Widely questioned at the time due to the island's remoteness and perceived inaccessibility, this location has easily become the best attended and most well-loved site for the annual conference. In 1987, after a long and successful surgical career as a private practitioner and as Clinical Associate Professor of Surgery at Wayne State University, Scott retired from active surgical practice in 1987 due to complications from arthritis. Scott and Bette remained together in Ypsilanti for the rest of his life.

Scott viewed retirement as a chance to cut back to only 50 or 60 hours of work each week. He remained an important part of his community in Ypsilanti, where he served on the city council, the board of the Ypsilanti Savings Bank, the Chamber of Commerce (including a term as president), with the Lions Club and as a trustee of Cleary College. He reviewed disability claims for the state and worked for the Michigan Peer Review Organization. Scott received many honors and awards from the numerous professional organizations that were proud to call him a member. These organizations included the American College of Surgeons, the Academy of Surgery of Detroit and the Detroit Surgical Association. He was awarded an honorary doctorate from Cleary College for his years of service. His highest accolade occurred in 1995 when both Scott and Bette were selected to receive the Distinguished Philanthropist Award from the American College of Surgeons.

Surgeon, teacher, community leader, philanthropist, husband, father and friend—Scott's death left an empty place in the hearts of all who knew him. He gave selflessly during life and will continue to give in death. Gone is the man, but not the memory.

2014 Scott Warner Woods Memorial Lecture



Monday, August 4, 2014

9:30am – 10:00am

Introduction: Raymond Onders, MD

Featuring

David B. Hoyt, MD, FACS

American College of Surgeons

Chicago, IL

***Official Update from the
American College Surgeons***

Dr. Hoyt received a BA degree with honors from Amherst College, followed by an MD degree

from Case Western Reserve University in 1976. From 1976-1984, Dr. Hoyt was a Surgical Resident and Research Fellow at the University of California, San Diego (UCSD) and Scripps Immunology Institute. He joined the faculty at UCSD and immediately became involved in their Trauma Service, where his role as Director lasted from 1989 – 2006. In 1995, he was appointed Professor of Surgery and was awarded The Monroe E. Trout Professorship in Surgery at UCSD (1996). In 2006, Dr. Hoyt was appointed to the positions of Chairman, Department of Surgery at the University of California, Irvine and The John E. Connolly Professor of Surgery. In 2008, Dr. Hoyt was also appointed Executive Vice Dean for the University of California, Irvine, School of Medicine. In January 2010, Dr. Hoyt was appointed Executive Director of the American College of Surgeons. He remains Emeritus Professor of Surgery at the University of California, Irvine.

Dr. Hoyt distinguished himself within the UCSD and UCI Departments of Surgery, having delivered numerous named lectures and has received multiple significant awards from his colleagues, as well as scientific organizations, while serving in positions of leadership. In his current role, he continues to present key and named lectures globally and still serves as an advisor for many graduate students.

Dr. Hoyt is a member of the American Surgical Association, Surgical Biology Club, Western Surgical Association, and Society of University Surgeons and holds membership in other prestigious surgical organizations. He is currently a Past President of the American Association for the Surgery of Trauma, Past President of the Society of General Surgeons of San Diego, Past President of the Shock Society, Past Chairman of the American College of Surgeons Committee on Trauma, and Past Medical Director of Trauma at the American College of Surgeons. He has been a visiting professor at a number of institutions nationally and internationally and is an Editorial Board Member of six journals. Dr. Hoyt consistently received significant public research funding, and continues to do so. He is the author of over 550 publications and the recipient of the American Heart Association Resuscitation Science Lifetime Research Achievement Award, the American College of Surgeons Distinguished Service Award and the Shock Society Scientific Achievement Award.

William Hunter Harridge, 1919 - 1971



Bill Harridge was a man of uncommon energy, integrity, and honesty. His personal enthusiasm, as well as his organizational abilities, made him an outstanding leader of men and organizations. This was evident early in his life as he served with distinction as a company commander of an Army tank unit. In 1945, he suffered a severe open-chest wound in France causing his discharge from the Army with the rank of major.

In 1963, after much discussion and thought, a decision was made to disband the Midwest Surgical Society. Fortunately for our present Society, Bill was persuaded to assume the Presidency for the coming year. Under his leadership, the Society was resurrected, its geographical base was expanded, and it has flourished ever since.

With the exception of his father, Will Harridge, Sr., who was the President of the American Baseball League, Bill's relationship with Dr. Warren Cole was the most important in his life. Dr. Cole writes: "Bill had good judgment, sincerity, determination, willingness to discipline himself...he had complete honesty and integrity...compassion, a characteristic so necessary if one is to become a fine physician."

Bill graduated from the University of Illinois College of Medicine in 1950 and served his internship and residency under Dr. Cole from 1950 to 1956. While he entered private practice in Evanston, Illinois, he maintained an active clinical affiliation with the University and was promoted to the rank of Clinical Professor. In May of 1970, he received the Distinguished Service Award in recognition of his contribution to the Department of Surgery.

Bill was a strong advocate of doctors determining their own professional organizations. He was a Diplomat of the American Board of Surgery and belonged to the Warren H. Cole Society (President 1968-69), Midwest Surgical Association (President 1964-65), North Suburban Branch of the Chicago Medical Society (President 1969-70), Chicago Surgical Society (Recorder 1967-70), The Western Surgical Association, The Illinois Surgical Society, The Society for Surgery of the Alimentary Tract, North Shore Chapter American Cancer Society (President 1966-68), The Institute of Medicine of Chicago and the American College of Surgeons. His many contributions to the surgical literature were primarily related to peripheral vascular and biliary tract disease.

Beloved by his patients and respected for his abilities by his surgical colleagues, Bill Harridge is most remembered for his rigid adherence to the principle of fairness, honesty, and forthrightness in all situations.

2014 William Hunter Harridge Memorial Lecture



Monday, August 4, 2014

12:15pm – 1:00pm

Introduction: Raymond Onders, MD

Featuring

Jeffrey L. Ponsky, MD, FACS

Cleveland Clinic

Cleveland, OH

Surgical Metamorphosis: Preparing for Change

Jeffrey L. Ponsky completed his surgical training at University Hospitals of Cleveland in 1976. He then joined the faculty of the Department of Surgery at University Hospitals of Cleveland where he was the Director of Surgical Endoscopy. In 1979 he became the Director of the Department of Surgery at The Mt. Sinai Medical Center in Cleveland where he remained through 1997. During that time Dr. Ponsky was Professor of Surgery at Case Western Reserve University School of Medicine and Vice Chairman of the Department of Surgery at Case. Dr. Ponsky then joined The Cleveland Clinic as the Director of Endoscopic Surgery and was their first Executive Director of the Minimally Invasive Surgery Center. He was also the Vice Chairman of the Division of Education and Director of Graduate Medical Education. He has served as a member of the Board of Governors at The Cleveland Clinic. In 2005 he assumed the Oliver H. Payne Professorship and Chair of the Department of Surgery at Case Western University School of Medicine and University Hospitals of Cleveland. Dr. Ponsky serves as Surgeon-in-Chief at University Hospitals Case Medical Center.

Dr. Ponsky is Past President of the Society of American Gastrointestinal Endoscopic Surgeons (SAGES), Past President of the Ohio Chapter of the American College of Surgeons, Past President of the Cleveland Surgical Society, and Past President of the American Society for Gastrointestinal Endoscopy (ASGE). He is a Fellow of the American College of Surgeons, and a member of numerous prominent surgical societies. He was Chairman of the American Board of Surgery. He has been the Vice President of the American Surgical Association, and also The Society for Surgery of the Alimentary Tract.

Dr. Ponsky is a graduate of Case Western Reserve University School of Medicine and earned his Executive MBA from CWRU's Weatherhead School of Management in 1990. He received the distinguished Kaiser Teaching Excellence Award at CWRU School of Medicine in 1993; the Distinguished Service Award by the Society of American Gastrointestinal Endoscopic Surgeons in April 2000; and in 2002 he received ASGE's Rudolf Schindler Award, the highest recognition award for excellence in endoscopic research, teaching and service. In 1996 he was

2014 William Hunter Harridge Memorial Lecture

President of the Medical Alumni Board of Trustees at CWRU. In 2005 he received the Pioneer in Endoscopy Award from the Society of American Gastrointestinal Endoscopic Surgeons. In 2007 he received the Maurice Saltzman Award from the Mt. Sinai Health Care Foundation. In 2009 he received from SAGES the George Berci Lifetime Achievement Award. Dr. Ponsky has been listed in [The Best Doctors in America](#) each year since its inception. He has published over 300 original articles and book chapters, authored or edited six textbooks and serves on the editorial board of numerous journals. He is the originator of the percutaneous endoscopic gastrostomy which provided a minimally invasive substitute for operative placement of feeding tubes. In 2009, the Jeffrey L. Ponsky, MD Chair in Surgical Education was established at CWRU School of Medicine, in Dr. Ponsky's honor.

His wife, Jackie, is a counselor and their four children include Lee who is a urologist at University Hospitals, Todd who is a pediatric surgeon, Zachary is a real estate investment manager; and Kimberly has a career in professional photography. Dr. Ponsky resides in Hunting Valley, Ohio.

William Hunter Harridge Lecturers

Jeffrey L. Ponsky, MD	2014
Fred A. Weaver, MD, MMM	2013
Daniel B. Michael, MD, PhD	2012
Leigh Neumayer, MD	2011
Kirby I. Bland, MD	2010
Jay L. Grosfeld, MD	2009
Douglas J. Mathisen, MD	2008
Terry Hicks, MD	2007
George I. Irvin, III, MD	2006
J. David Richardson, MD	2005
Josef E. Fischer, MD	2004
Stephen D. Leach, MD	2003
Charles E. Lucas, MD	2002
J. Wayne Meredith, MD	2001
Michael W. L. Gauderer, MD	2000
Glenn D. Steele, Jr., MD, PhD	1999
Layton F. Rikkers, MD	1998
Gregorio A. Sicard, MD	1997
John P. Delaney, MD, PhD	1996
Keith A. Kelly, MD	1995
Robert E. McAfee, MD	1994
Richard L. Simmons, MD	1993
David S. Mulder, MD	1992
Donald D. Trunkey, MD	1991
Lazer Greenfield, MD	1990
Erwin R. Thal, MD	1989
J. Patrick O'Leary, MD	1988
Robert W. Barnes, MD	1987
Jeremiah G. Turcotte, MD	1986
Steven G. Economou, MD	1985
Jerry M. Shuck, MD	1984
Robert E. Hermann, MD	1983
Ward O. Griffen, MD	1982
Robert Condon, MD	1981
Robert J. Freeark, MD	1980
John Glover, MD	1979
Robert Bartlett, MD	1978
J. Wesley Alexander, MD	1977
Raymond Read, MD	1976
*Hushang Javid, MD	1975
Alexander J. Walt, MD	1974
Warren H. Cole, MD	1973
Lester R. Dragstedt, MD	1972
Allan M. Lansing, MD	1971
Lester R. Dragstedt, MD	1962
Warren H. Cole, MD	1960

**First official Harridge
Lecturer*

In Remembrance

Thomas M. Foley
Marshalltown, IA

Notice of Change

Please make the following changes to my listing:

NAME

SPOUSE'S NAME

ADDRESS

ADDRESS

ADDRESS

CITY, STATE, ZIP

PHONE

FAX

E-MAIL

SURGICAL SPECIALTY

YEAR OF INDUCTION INTO MSA MEMBERSHIP

Send to: **Midwest Surgical Association**

14005 Nicklaus Drive

Overland Park, KS 66223

Telephone: 913-402-7102

Fax: 913-273-1140

Email: events@lp-etc.com

Web: www.midwestsurg.org

Notice of Death

NAME

DATE

Send to: **Midwest Surgical Association**
14005 Nicklaus Drive
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