

61st ANNUAL JAMES C. KIMBROUGH UROLOGICAL SEMINAR



2014 PROGRAM BOOK

January 15-19, 2014

San Diego Harbor Island Hotel



Society of Government Service Urologists

2014 PROGRAM BOOK



www.govurology.org

Scientific Program Committee:

CDR Sean P. Stroup, MC, USN

CDR Jamey Sarvis, MC, USN

Disclosure: The views and opinions expressed in this program book are those of the authors and do not necessarily reflect the official policy or position of the US Navy, Army, Air Force, the Department of Defense, or the U.S. Government.



Welcome from the President, Christopher J. Kane, MD

Dear SGSU members,

It's my honor to serve as President of the SGSU this year. CDR Sean Stroup and CDR Jamey Sarvis have put together a great program. The resident competition and

GU Bowl will be highlights as always and the line-up of state of the art lectures look fantastic. The venue this year should also be great and hopefully we will have some of our best San Diego Winter weather. I reflect on my first academic presentation at the Kimbrough in 1992 with a little post traumatic anxiety that I know our residents will be feeling in January, mixed with nostalgia for the wonderful friendships and camaraderie that is the hallmark of the meeting. I look forward to welcoming you to San Diego for the Kimbrough 2014.

With Best Regards,
Chris

Christopher J. Kane MD, FACS
CAPT, MC, USN (retired)
Professor and Interim Chair, Department of Surgery
Chair, Department of Urology
C. Lowell and JoEllen Parsons Endowed Chair in Urology
University of California San Diego Health System
ckane@ucsd.edu

Welcome from the Program Chairman CDR Sean P. Stroup



Dear SGSU Members,

My colleagues in Urology and I at the Naval Medical Center San Diego welcome you to America's Finest City for the 61st Annual Society of Government Service Urologists, James C. Kimbrough Urological Seminar. Even as this year's meeting represents a significant departure from the past, we have tried to keep our important traditions alive, while maintaining an exciting and robust academic program.

Please join us at the Welcome Reception on Wednesday, January 15 to kick off the meeting. The usual timeline has been condensed for this year's meeting and entails three full meeting days and a half-day on Sunday, January 19 for a total of 32.5 hours of CME.

We will begin our meeting by sharing some of San Diego's unique military and civilian urological history. Our Scientific Program continues to allow every resident and staff the opportunity to present novel research at podium and poster sessions. We are also honored to have a distinguished group of visiting faculty that will focus on state-of-the-art discussions and highlight best practices and new research in urology. Special topic lectures and industry programs will round out our meeting. As usual, we will include ample time for audience questions and discussions of challenging clinical scenarios.

Finally, please join us on Saturday, January 18 at 6:30 PM for the Kathy and Preston Littrell Awards dinner, where keynote speaker Vice Admiral (ret.) Michael J. McCabe, former Commander of U.S. Navy's 3rd Fleet, will speak about his military career and leadership. We look forward to renewing old friendships and making new ones.

Best Regards,

Sean Stroup, MD
CDR, MC, USN
Assistant Professor of Surgery, USUHS
Naval Medical Center San Diego
spstroup@gmail.com

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Tripler AMC, HI

Kimbrough Course Director Elect

TBD

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Duke University Medical Center, Div. of Urology, Durham, NC

SGSU Representative to the AUA Young Urologists

Sean P. Stroup, MD
Naval Medical Center San Diego

JAMES CLAUDE KIMBROUGH, MD

Colonel, Medical Corps, United States Army -1887-1956



Colonel Kimbrough was the "Father of U.S. Army Urology". A native of Madisonville, Tennessee, he graduated from Vanderbilt University School of Medicine in 1916 and entered the U.S. Army Medical Corps in July 1917. He served a total of forty-one months in Europe during World Wars I and II. His career from 1921, was spent almost exclusively as Chief Urologist in many Army hospitals and included four tours, totaling eighteen years, at Walter Reed General Hospital where he initiated the urology residency program in 1946. His military awards include a MOS prefix of "A", Bronze

Star, Legion of Merit, Purple Heart, and a Meritorious Service Citation from General Pershing. He was immediately recalled to active duty after his statutory retirement in 1948. In 1953 an Act of Congress appointed him a Permanent Consultant in urology at Walter Reed. In addition, COL Kimbrough was a Diplomat of the American Board of Urology, a member of the American Urological Association (AUA), a Fellow of the American College of Surgeons, and a member of the American Medical Association. He served as President of the Mid-Atlantic Section of the AUA from 1955 to 1956. From 1949 to 1950 he was President of the Washington, D.C. Urologic Society. He held honorary memberships in the Western Section of the AUA, Royal Society of Medicine of London, Academic de Chirurgie of Paris and Alpha Omega Alpha. Colonel Kimbrough was a 32d degree Mason and Shriner. His intense interest and enthusiasm in Urology made him an authority in the field of urologic oncology; he contributed fifty-eight papers to the urological literature. In 1953 this seminar was established in his honor. In 1957, after his death, the official name became the James C. Kimbrough Urological Seminar. On 29 June 1961, Kimbrough Army Hospital, Fort George G. Meade, was dedicated to his memory.

JAMES C. KIMBROUGH MEMORIAL AWARDS - PREVIOUS WINNERS

In 1957, Mrs. Pauline Kimbrough established the Kimbrough Memorial Award for the best presentation by a military resident. Starting in 1972, first place awards began to be presented to the two armed forces urology residents making the best presentations in clinical urology and basic science research. The competition was expanded to include all residents in government service affiliated urology residency programs in 2007. A plaque is given to each award winner.

PREVIOUS AWARD WINNERS

1957	MAJ Gerald Mahaffey, USAF	Letterman Gen Hospital
1958	MAJ A.A. Borski, USA	Fitzsimons Gen Hospital
1959	LT Carter E. Carlton, USN	Baylor U. College of Medicine
1959	CPT Frank E. Ceccarelli, USA	Brooke Gen Hospital
1960	CPT Herbert Levin, USA	Walter Reed Gen Hospital
1961	CPT Richard C. Macure, USA	Brooke Gen Hospital
1962	LCDR R.M. Busch, USN	San Diego Naval Hospital
1963	CPT Richard Finder, USA	Walter Reed Gen Hospital
1964	MAJ Mauro P. Gangai, USA	Walter Reed Gen Hospital
1965	MAJ Thomas Shown, USA	Letterman Gen Hospital
1966	LCDR Robert E. Julian, USN	US Naval Hospital, PA
1967	MAJ Robert Wright, USA	Brooke Gen Hospital
1968	MAJ John C. Wurster, USA	Tripler Gen Hospital
1969	MAJ Joseph A. Bruckman, USA	Tripler Gen Hospital
1970	MAJ Davis F. Gates, USA	Tripler Gen Hospital
1971	MAJ Charles T. Swallow, USA	Brooke Gen Hospital
1972	CPT Tarver B. Bailey, USA	Walter Reed AMC
1972	MAJ Peter A. Leninger, USA	Walter Reed AMC
1973	MAJ George E. Deshon, Jr., USA	Walter Reed AMC
1973	MAJ Gerald L. Levisay, USA	Fitzsimons AMC
1974	MAJ H. David Cox, USA	Walter Reed AMC
1974	LTC Jan Hull, USA	Brooke AMC
1975	MAJ Shannon McMillen, USA	Madigan AMC
1975	LCDR Clifford J. Nemeth, USN	National Naval Med Ctr
1976	MAJ Phillip H. Beck, USA	Letterman AMC
1976	MAJ Patrick W. Kronmiller, USA	Madigan AMC
1977	MAJ William D. Belville, USA	Walter Reed AMC
1977	MAJ David W. Bentley, USA	Fitzsimons AMC
1978	MAJ Victor J. Kiesling, USA	Letterman AMC
1978	Torrence M. Wilson, USA	Fitzsimons AMC
1979	MAJ Jack R. Pence II, USAF	Wilford Hall MC
1979	MAJ Rene Sepulveda, USA	Walter Reed AMC
1980	MAJ George G. Mygatt, USA	Tripler Army AMC
1980	MAJ Jack R. Pence II, USAF	Wilford Hall MC
1981	LCDR Kathryn S. Buchta, USN	Naval Med Ctr, San Diego
1981	MAJ Gary A. Wikert, USA	Brooke AMC
1982	MAJ Louis R. Cos, USA	Univ of Rochester MC
1982	CPT August Zabbo, USAF	Cleveland Clinic Foundation
1983	CPT Robert G. Ferrigni, USAF	Wilford Hall MC
1983	CPT Ian M. Thompson Jr., USA	Brooke AMC
1984	CPT Stephen M. Dresner, USAF	WA Univ, St. Louis, MO
1984	CPT Julius L. Teague, USA	Brooke AMC
1985	LCDR Thomas F. Huisman, USN	Naval Medical Ctr, San Diego
1985	CPT Thomas A. Rozanski, USA	Madigan AMC
1986	CPT Judd W. Moul, USA	Walter Reed AMC

JAMES C. KIMBROUGH MEMORIAL AWARDS - PREVIOUS WINNERS (cont.)

1986	CPT Thomas A. Rozanski, USA	Madigan AMC
1987	LCDR Thomas J. Stilwell, USNR	Mayo Clinic, Rochester, MN
1987	LT Harold A. Frazier II, USNR	Nat'l Naval Med. Ctr.
1988	CPT Anurag K. Das, USAFR	Duke Univ Med Ctr
1988	LT Jeffrey Twidwell, USNR	Naval Medical Ctr, San Diego
1989	MAJ Kurt L. Hansberry, USA	Brooke AMC
1989	CPT Leonard G. Renfer, USA	Madigan AMC
1990	<u>Cancelled</u> (Desert Shield/Storm)	
1991	CPT Wilfred S. Kearse, Jr. USAF	Wilford Hall MC
1991	MAJ Timothy K. Dixon, USA	Brooke AMC
1992	CPT Richard W. Knight, USA	Madigan AMC
1992	MAJ Donald J. Lewis, USA	Walter Reed AMC
1993	MAJ M. David Bomalaski, USAF	Wilford Hall MC
1993	MAJ Thomas M. Seay, USAF	Wilford Hall MC
1994	CPT R. Duane Cespedes, USAF	Wilford Hall MC
1994	MAJ Joseph Y. Clark, USA	Brooke AMC
1995	CPT Jay T. Bishoff, USAF	Wilford Hall MC
1995	PT Ted O. Morgan, USA	Walter Reed AMC
1996	CPT Jay T. Bishoff, USAF	Wilford Hall MC
1996	CPT Raymond S. Lance, USA	Madigan AMC
1997	MAJ John G. Anema, USAF	Wilford Hall MC
1997	LTC Rhonda Cornum, USA	Brooke AMC
1998	MAJ John G. Anema, USAF	SAUSHEC*
1998	MAJ George B. Stackhouse, USA	Walter Reed AMC
1999	LT Melody A. Denson, USN	University of Iowa
1999	CPT Kyle J. Weld, USAF	University of Tennessee
2000	LCDR Prodromos G. Borboroglu, USN	Naval Medical Ctr, San Diego
2000	CPT Michael L. Gallentine, USAF	SAUSHEC*
2001	MAJ Kevin J. Gancarczyk, USA	Walter Reed AMC
2001	CPT Barak Perahia, USAF	SAUSHEC*
2002	CPT Ann S. Fenton, USAF	SAUSHEC*
2002	CPT Kenneth H. Ferguson, USAF	SAUSHEC*
2004	CPT Eric J. Hick, USAF	SAUSHEC*
2004	MAJ Stacey G. Koff, USA	Walter Reed AMC
2005	MAJ Mark Noller, USA	SAUSHEC*
2005	CPT Thomas Novak	Walter Reed AMC
2006	MAJ Inger Rosner, USA	Walter Reed AMC
2006	LT R. Chanc Walters, USN	Naval Medical Ctr, San Diego
2007	LT Alison M. Lake, USN	University of Michigan
2007	LT R. Chanc Walters, USN	Naval Medical Ctr, San Diego
2008	LT Alison M. Lake, USN	University of Michigan
2008	CPT L. Andrew Evans	SAUSHEC*
2009	CPT Chad DeRosa, MC, USA	Walter Reed AMC
2009	CPT Forrest C. Jellison, MC, USAF	Loma Linda Medical Center
2012	CPT Timothy Tausch, MC USA	Madigan AMC, WA
2012	MAJ Patrick McDonough, MC, USA	Madigan AMC, WA
2013	CPT Nicholas J. Kuntz, MC, USA	Duke University
2013	CPT Mark R. Anderson, MC, USA	Duke University

*San Antonio Uniformed Services Health Education Consortium

PRINCE D. BEACH, MD

Colonel, Medical Corps, United States Army -1918-1992



Colonel Beach was a native of New Bedford, Massachusetts, a graduate of Colby College and Jefferson Medical College, and was commissioned in the US AMEDD in 1945. Over the next several years he served as a battalion surgeon and medical officer with varied and multiple commands of dispensaries and station hospitals, primarily in Europe. During the Korean War he received the Bronze Star while commanding officer and division surgeon of the 24th Medical Battalion. After completion of his urology residency in 1955 at Brooke Army Medical Center, he was the Assistant Chief of Urology at Fort Carson and Brooke, and Chief of Urology, 2nd General

Hospital, Landstuhl, Germany. He returned to Brooke General Hospital in 1963 and was Chief of Urology from 1965 until his retirement in 1968, after 23 years of active service. Subsequently, he became an Associate Professor in the Department of Urology at Baylor College of Medicine, Chief of Urology at the VA Hospital in Houston, Texas, and Co-chairman of the VA Cooperative Urological Research Group. He was Executive Secretary of the Society of Government Service Urologists (SGSU) from its inception until his death in 1992. He was known for his great sense of humor, administrative expertise, wise counsel and sound clinical acumen.

PRINCE D. BEACH AWARD PREVIOUS WINNERS

Established in 1992 for the best paper presented by a Society Member Staff Physician, as judged by Chief Residents attending the Seminar.

PREVIOUS AWARD WINNERS

1993	MAJ Samuel Peretsman, USAF, MC	Wilford Hall Medical Center
1994	MAJ J. Brantley Thrasher, MC, USA	Madigan Army Medical Center
1995	MAJ J. Brantley Thrasher, MC, USA	Madigan Army Medical Center
1996	MAJ Allen F. Morey, MC, USA	UCSF San Francisco Gen.Hospital
1997	MAJ Ronald S. Sutherland, MC, USA	Tripler Army Medical Center
1998	LTC Burkhardt H. Zorn, MC, USA	Walter Reed Army Medical Ctr.
1999	COL Rhonda Cornum, MC, USA	Eisenhower Army Medical Center
2000	LCDR Stephen V. Jackman, MC, USN	Naval Medical Ctr. Portsmouth
2001	COL Thomas A. Rozanski, MC, USA	Brooke Army Medical Center
2002	MAJ(P) Douglas W. Soderdahl, MC,USA	Eisenhower Army Medical Center
2004	LCDR Brian Auge, MC, USN	Naval Medical Center San Diego
2005	COL Edward Mueller, MC, USA (Ret.)	San Antonio, TX
2006	LCDR Emily Cole, MC, USNR	Naval Medical Center San Diego
2007	MAJ R. Clay McDonough,III,USAF,MC	University of Iowa Hosp.& Clinics
2008	James A. Brown, M.D.	Medical College of Georgia
2009	LTC Andrew Peterson, MC, USA	Madigan Army Medical Center
2010	LCDR Douglas W. Storm, MC, USN	Naval Medical Center San Diego
2011	MAJ Steven Hudak, MC, USA	San Antonio Military Med. Ctr.
2012	LCDR Joe Miller, MC, USN	Univ. of California, San Francisco
2013	LTC Timothy Brand MC, USA	Madigan Army Medical Center

H. GODWIN STEVENSON

SGSU Administrator - 1920-1992



H. Godwin Stevenson, a native of Philadelphia, graduated from Cornell University with a B.S. in zoology. He was a naval aviator and flight instructor during World War II. In 1946 he joined Eaton Laboratories as their first salesman and was in charge of government sales from 1952 until his retirement in 1982. He was a naturalist throughout his life, an expert in falconry, an avid birdwatcher, and published authority on moths. Known affectionately as "Tibbie," he was a trusted friend, confidant, and supporter of all Armed Forces and VA urologists. His numerous contributions to government service urology remain his legacy, and include: administrator of the SGSU from its inception in 1972 until his death in 1992, organization and

publication of the "Proceedings of the Kimbrough Seminar," solicitation of multiple corporate sponsors for the annual James C. Kimbrough Urological Seminar, resident grants to professional meetings, SGSU Membership Directory, and hotel conference agreements for the yearly Kimbrough meeting.

H.G. STEVENSON AWARD PREVIOUS WINNERS

In 1992 the Society established this award, which is presented annually for outstanding support and dedicated service to the Society. The recipient of this award can be a Corporate Member, physician, or other individual as determined by the Board of Directors.

PREVIOUS AWARD WINNERS

1992	COL Evan Lewis, MC, USA (Ret)
1994	Preston N. Littrell
1995	COL John N Wettlaufer, MC, USA (Ret)
1996	COL Leonard Maldonado, MC, USA (Ret)
1997	F. Kash Mostofi, M.D.
1998	Lester Persky, M.D.
1999	Charles A. Hulse, M.D.
2000	COL Donald E. Novicki, USAF, MC (Ret)
2001	Harry Tarr
2002	COL Martin L. Dresner, MC, USA (Ret)
2004	COL Robert M. Dobbs, MC, USA (Ret)
2005	COL Ian M. Thompson, MC, USA (Ret)
2006	Kathryn S. Littrell
2007	COL Howard E. Fauver, MC, USA (Ret)
2008	COL David G. McLeod, MC, USA (Ret)
2009	COL David McLeod, MC, USA (Ret)
2010	COL Thomas A. Rozanski, MC, USA (Ret)
2011	Isabel Sesterhenn, MD
2012	John Weigel, MD
2013	BGEN James T. Turlington, MC, USAF (Ret)

CHRISTINE MANTHOS

Major, Medical Corps, United States Army - 1961-1999



Major Manthos, a native of Leesburg, Virginia, commissioned in the USAR in 1985, was a graduate with distinction of University of Virginia and the Uniformed Services University of the Health Sciences from which she received the Army Surgeon General Award. She did her surgical internship at Fitzsimons AMC followed by a one year assignment in Korea as Troop Medical Clinic Commander. She returned to Fitzsimons to complete her Urology residency in 1996 as the last graduating urology resident prior to the closure of Fitzsimons. Among her accomplishments throughout her life were fluency in Russian, participation in an early Hanta

virus study, experience as a country music disc jockey, selection by her peers in 1996 as Outstanding Teaching Resident and below zone promotion to Major. An outstanding physician, she was known for her genuine compassion, excellent teaching abilities and superb surgical skills. Chris was lovingly devoted to her children, family and many friends. Her ever-present infectious smile touched all who knew her. The annual resident luncheon will be held in memory of Christina Manthos, a member of the society who died of breast cancer. We hope her memory and love for residents will live on at the luncheon.

CLARE SCANLON

1941-2005



Clare Scanlon was just as much a member of the Army as was her husband, retired judge advocate Wally. A native of Long Island, New York, Clare graduated from Marymount College in Arlington, Virginia. While raising a family and moving from post to post, Clare worked tirelessly to enrich the lives of those around her. She received the Military Wife of the Year award at Fort Dix, NJ in 1971, and in 1974 was a recipient of the Molly Pitcher award for distinguished service as an officer's wife in the community at Ft. Sill, OK. While at West Point, Clare instructed cadets on finer points of decorum and protocol, launching many young men and women into successful Army careers.

After Wally's career took him to Fort Sam Houston, she served as the medical editor for Brooke Army Medical Center, shepherded many manuscripts into prestigious journals and textbooks of international renown, and began a decade of service to the SGSU. Even into the last year of her life, Clare dedicated countless hours to planning the Kimbrough Urological Seminar, editing and assembling the program book.

CLARE SCANLON AWARD - PREVIOUS WINNERS

CLARE SCANLON AWARD

In 2006, to express our deep gratitude for her devoted service, the Society established the Clare Scanlon Award, to be "presented annually for outstanding administrative support and service to the Society, specifically in regards to the annual Kimbrough Seminar, as determined by the Course Director".

PREVIOUS AWARD WINNERS

2006	Teresa Clark & Sharon Mason
2007	Janie N. Garcia
2008	Patricia A. Harrison
2009	Toni Dominci
2011	Verna Munroe

PREVIOUS JAMES C. KIMBROUGH SEMINARS

NUMBER	YEAR	
1	1953	Walter Reed General Hospital COL Jack W. Schwartz, MC, USA
2	1954	Walter Reed General Hospital COL Jack W. Schwartz, MC, USA
3	1955	Brooke General Hospital COL Claude C. Dodson, MC, USA
4	1956	Walter Reed General Hospital LTC Kryder E. Van Buskirk, MC, USA
5	1957	Walter Reed General Hospital COL John F. Patton, MC, USA
6	1958	Brooke General Hospital COL Louis K. Mantell, MC, USA
7	1959	Brooke General Hospital COL Louis K. Mantell, MC, USA
8	1960	Brooke General Hospital LTC Clarence B. Hewitt, MC, USA
9	1961	Brooke General Hospital COL Louis K. Mantell, MC, USA
10	1962	Letterman General Hospital COL Kryder E. Van Buskirk, MC, USA
11	1963	Walter Reed General Hospital COL Clarence B. Hewitt, MC, USA
12	1964	Brooke General Hospital COL Prince D. Beach, MC, USA
13	1965	Letterman General Hospital LTC Charles A. Moore, MC, USA

PREVIOUS JAMES C. KIMBROUGH SEMINARS

NUMBER	YEAR	
14	1966	Walter Reed General Hospital COL Kryder E. Van Buskirk, MC, USA
15	1967	Brooke General Hospital COL Prince D. Beach, MC, USA
16	1968	Walter Reed General Hospital COL Kryder E. Van Buskirk, MC, USA
17	1969	Letterman General Hospital COL Leonard Maldonado, MC, USA
18	1970	Brooke General Hospital LTC Robert M. Dobbs, MC, USA
19	1971	Letterman General Hospital LTC Ray E. Stutzman, MC, USA
20	1972	Fitzsimons General Hospital COL Evan L. Lewis, MC, USA
21	1973	Walter Reed Army Medical Center COL Anthony A. Borski, MC, USA CPT Mitchell Edson, MC, USN
22	1974	Brooke Army Medical Center COL Mauro P. Gangai, MC, USA
23	1975	Madigan Army Medical Center COL John N. Wettlaufer, MC, USA
24	1976	Naval Hospital, NRMHC, San Diego, CA CAPT C.R. Sargent, MC, USN
25	1977	Fitzsimons Army Medical Center COL Robert M. Dobbs, MC, USA
26	1978	Wilford Hall USAF Medical Center COL Thomas P. Ball, MC, USAF COL Carl H. Weber, MC, USAF

PREVIOUS JAMES C. KIMBROUGH SEMINARS

NUMBER	YEAR	
27	1979	Walter Reed Army Medical Center COL Ray E. Stutzman, MC, USA
28	1980	Naval Regional Med Center, San Diego CAPT Michael R. McCarthy, MC, USN CDR John P. Sands, MC, USN
29	1981	Fitzsimons Army Medical Center COL Howard E. Fauver, MC, USA
30	1982	Wilford Hall USAF Medical Center COL Donald E. Novicki, USAF, MC LT COL Richard A. Airhart, USAF, MCP
31	1983	Letterman Army Medical Center COL Robert E. Agee, MC, USA
32	1984	Naval Hospital, Oakland, CA CDR George J. Gavrell, MC, USN
33	1985	Madigan Army Medical Center COL William D. Belville, MC, USA
34	1986	Wilford Hall USAF Medical Center COL Alvin L. Sago, USAF, MC LT COL John D. Maldazys, MC, USAF
35	1987	Walter Reed Army Medical Center/USUHS COL David G. McLeod, MC, USA LTC Steven J. Skoog, MC, USA
36	1988	Naval Hospital Portsmouth CAPT Gordon MacDonald, MC, USA
37	1989	Brooke Army Medical Center COL Francisco R. Rodriguez, MC, USA
38	1990	Fitzsimons Army Medical Center COL Michael J. Raife, MC, USA

PREVIOUS JAMES C. KIMBROUGH SEMINARS

NUMBER	YEAR	
39	1991	National Naval Medical Center-Bethesda CAPT Kevin J. O'Connell, MC, USN
40	1992	Madigan Army Medical Center COL John N. Wettlaufer, MC, USA
41	1993	Naval Medical Center San Diego CAPT John P. Sands, MC, USN
42	1994	Naval Medical Center Portsmouth CAPT James R. Auman, MC, USN
43	1995	Walter Reed Army Medical Center/USUHS COL David G. McLeod, MC, USA LTC Pierce B. Irby, MC, USA
44	1996	Wilford Hall USAF Medical Center MAJ Steven C. Lynch, MC, USAF MAJ Edmund S. Sabanegh, MC, USAF
45	1997	Tripler Army Medical Center COL George E. Deshon, MC, USA
46	1998	National Naval Medical Center-Bethesda CAPT Paul J. Christenson, MC, USN CDR Hal A. Frazier, MC, USN
47	1999	Brooke Army Medical Center LTC Thomas A. Rozanski, MC, USA LTC John P. Foley, MC, USA
48	2000	Naval Medical Center San Diego CAPT James L. Roberts, MC, USN LCDR Christopher J. Kane, MC, USN
49	2001	Madigan Army Medical Center LTC(P) Raymond A. Costabile, MC, USA

PREVIOUS JAMES C. KIMBROUGH SEMINARS

NUMBER	YEAR	
50	2002	Walter Reed Army Medical Center COL Dennis S. Peppas, MC, USA
51	2004	Wilford Hall USAF Medical Center MAJ Edith Canby-Hagino, MC, USAF LT COL Steven C. Lynch, MC, USAF
52	2005	Tripler Army Medical Center COL Ronald S. Sutherland, MC, USA
53	2006	Naval Medical Center Portsmouth CAPT Leo Kusuda, MC, USN Eastern Virginia Medical School Gerald H. Jordan, MD
54	2007	Brooke Army Medical Center LTC Douglas W. Soderdahl, MC, USA COL Allen F. Morey, MC, USA
55	2008	Naval Medical Center San Diego CDR Brian K. Auge, MC, USN LCDR Donald S. Crain, MC, USN
56	2009	Walter Reed Army Medical Center & National Naval Medical Center-Bethesda COL James R. Jezior, MC, USA COL Robert C. Dean, MC, USA
57	2010	Wilford Hall Medical Center LT COL Kyle J. Weld, MC, USAF
58	2011	Madigan Healthcare System MAJ Timothy C. Brand, MC, USA
59	2012	Naval Medical Center Portsmouth CAPT Paul D. McAdams, MD, FACS
60	2013	Tripler Medical Center, Honolulu COL (Ret) USA, Richard S. Stack, MD MAJ Joseph Sterbis, MC, USA CDR Tammy L. Bloom, MC, USN

GENERAL INFORMATION

Registration:

Registration is required in order to obtain Continuing Medical Education credits. Attendees will be given badges at registration. It is required that you wear your badges to gain entry into the scientific sessions, exhibit hall, social events, breakfasts, and breaks. Should you wish to bring your spouse to any of these events, you must register he/she for a badge.

The evening optional social events include the:

Wednesday Evening President's Welcoming Reception - \$35

Saturday Evening Kathy & Preston Littrell Awards Dinner - \$35

If you have not purchased these tickets, you may do so at the registration desk. (Tickets will be collected at the door).

Overview/Highlights:

Topics featured at the Kimbrough Annual Seminar will feature state of the art lectures in various urologic topics - including: Urothelial Cancer, Kidney Cancer, Testicular Cancer; Prostate Cancer, BPH, Infertility; Hypogonadism, Sexual Dysfunction; Peyronie's Disease, Stone Disease; Female Incontinence/Pelvic Medicine; Kidney Cancer; Genitourinary Trauma and Pediatric Urology. The program also discusses simulation training for residents, and military leadership techniques applied to healthcare. In addition, the program will include the traditional Resident Research Competition, Research Papers, Poster Session and Mock Oral Boards - for those preparing for the ABU certifying examination.

Special Assistance/Dietary Needs: The SGSU complies with the Americans with Disabilities Act §12112(a). If any participant is in need of special assistance or has any dietary restrictions, please see the registration desk.

Attention Presenters:

Go to slide preview station in the ballroom foyer to make changes/update slides. Updates must be made an hour in advance of your presentation.

Slide Preview Hours:

WED: 2:00 PM - 6:00 PM

THURS - SAT: 7:00 AM - 5:00 PM

SUN: 7:00 AM - 12:00 Noon

CONTINUING MEDICAL EDUCATION

Acknowledgement of Commercial Support

American Urological Association & Medtronic

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 Institute for the Advancement of Human Behavior (IAHB) and the Society of Government Service Urologists (SGSU). The IAHB is accredited by the ACCME to provide continuing medical education for physicians.

Credit Designation Statement

The IAHB designates this live activity for a maximum of 32.50 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Objectives:

After attending this program Participants should be able to:

1. Discuss active surveillance in men with prostate cancer
2. Assess testosterone replacement therapies for men with low testosterone
3. Describe the urological implications to patients with stone disease

Scope of Practice: Participants with all levels of expertise are invited to participate in any of the program's sessions.

Statement of Disclosure: All faculty/speakers, planners, abstract reviewers, moderators, authors, co-authors and administrative staff participating in the continuing medical education programs jointly sponsored by IAHB are expected to disclose to the program audience any/all relevant financial relationships related to the content of their presentation(s). We acknowledge the potential presence of limitations on information, including, but not limited to: data that represents ongoing research; interim analysis; preliminary data; unsupported opinion; or approaches to care that, while supported by some research studies, do not represent the only opinion or approach to care supported by research.

Financial Relationships Keys

G—Grant/Research Support
C—Consultant/Scientific Advisor
B—Board Member
S—Speaker's Bureau
E—Employee
SH—Stock shareholder
N—Nothing to disclose

Resolution Key

R1—Restricted to Best Available Evidence & ACCME Content validation statements
R2—Removed/Altered Financial Relationship
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N/A—Not Applicable

CONTINUING MEDICAL EDUCATION

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Speaker	Auge	Brian	NTD	N/A
Speaker	Baumgartner	Timothy	NTD	N/A
Speaker	Berger	Jonathan	NTD	N/A
Speaker	Biewenga	Eric	NTD	N/A
Moderator	Brand	Timothy	NTD	N/A
Speaker	Buckley	Jill	NTD	N/A
Moderator	Cartwright	Lisa	NTD	N/A
Speaker	Casale	Pat	NTD	N/A
Moderator	Chaing	George	NTD	N/A
Speaker	Chesnut	Greg	NTD	N/A
Speaker	Chiu	Alden	NTD	N/A
Speaker	Choe	Chong	NTD	N/A
Speaker	Christman	Matthew	NTD	N/A
Speaker	Cohen	Elliot	NTD	N/A
Speaker	Cole	Emily	NTD	N/A
Speaker	Daneshmand	Siamak	NTD	N/A
Speaker	Derweesh	It haar	NTD	N/A
Speaker	Desai	M i h i r	NTD	N/A
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Speaker	Fantony	J J	NTD	N/A
Speaker	Farrell	James	NTD	N/A
Speaker	Fischer	Kimberly	NTD	N/A
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Speaker	Goldstein	Irwin	AbbVie, Ascend = SB / Auxilium = RG & SM & SB / Eli Lilly = SB / Endo = SB / Shionogi = SM & SB	R1

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Speaker	Hilton	William	NTD	N/A
Speaker	Hudak	Steven	NTD	N/A
Speaker	Jezoir	James	NTD	N/A
Speaker	Kane	Christopher	NTD	N/A
Speaker	Kaplan	George	NTD	N/A
Speaker	Kasprenski	Matthew	NTD	N/A
Speaker	Kern	Sean	NTD	N/A
Speaker	Kim	Steven	NTD	N/A
Speaker	Knapp	Stephanie	NTD	N/A
Speaker	Knight	Richard	NTD	N/A
Speaker	Koski	Michelle	NTD	N/A
Speaker	Kuntz	Nicholas	NTD	N/A
Speaker	Lance	Raymond	NTD	N/A
Speaker	L'Esperance	James	NTD	N/A
Speaker	Levine	Lawrence	Auxilium = GC / Coloplast=C	R1
Speaker	Marks	Robert	NTD	N/A
Speaker	Marshall	Michael	NTD	N/A
Speaker	Masterson	James	NTD	N/A
Moderator	McAdams	Paul	NTD	N/A
Speaker	Milliard	Fred	NTD	N/A
Speaker	Monga	Manoj	Cook, Coloplast, Bard & Olympus = C	R1
CME Coordinator	Morgan	Sheryl	NTD	N/A
Speaker	Moul	Judd	Ferring, Dendreon, Janssen & Myriad = SB / Medivation, Bayer & Astellas = SM	R1
Speaker	Musser	John	NTD	N/A
Speaker	Nork	Justin	NTD	N/A
Speaker	Nwoye	Uzoamaka	NTD	N/A
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CONTINUING MEDICAL EDUCATION

The list below includes all individuals in control of content for this CME activity

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Speaker	Osborn	David	NTD	N/A
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Speaker	Parenteau	Michael	NTD	N/A
Speaker	Parsons	Kellogg	American Medical Systems = SB / NeoTract = C / Sophiris = SM	R1
Speaker	Pessis	Dennis	NTD	N/A
Speaker	Peterson	Andrew	NTD	N/A
Moderator	Powell	Timothy	NTD	N/A
Speaker	Rhee	Eugene	NTD	N/A
Speaker	Roehrborn	Claus	GSK, Lilly & NeoTract = C	R1
Speaker	Rosen	Philip	NTD	N/A
Speaker	Rycyna	Kevin	NTD	N/A
Moderator	Santomauro	Michael	NTD	N/A
Speaker	Scarborough	Patrick	NTD	N/A
Speaker	Schumaker	Peter	NTD	N/A
Speaker	Singh	Abhay	NTD	N/A
Speaker	Speir	Ryan	NTD	N/A
Moderator	Sterbis	Joseph	NTD	N/A
Speaker	Storm	Douglas	NTD	N/A
Speaker	Stringer	Matthew	NTD	N/A
Speaker	Stroup	Sean	NTD	N/A
Speaker	Sur	Roger	Olympus = C / Boston Scientific = SB	R1
Speaker	Tausch	Timothy	NTD	N/A
Speaker	Thibault	Gregory	NTD	N/A
Speaker	Van Every	Marvin	NTD	N/A
Speaker	Vilarreal	Humberto	NTD	N/A
Speaker	Walker	Marc	NTD	N/A
Speaker	Walters	C Rustin	NTD	N/A
Speaker	Watson	Richard	NTD	N/A
Speaker	Wilds	Harvey	NTD	N/A
Speaker	Williams	Michael	NTD	N/A
Speaker	Wilson	Steven	Abreon, AMS, Coloplast & NeoTract = C	R1
Speaker	Wilson	Torrance	NTD	N/A
Speaker	Womble	Paul	NTD	N/A
Speaker	Zuckerman	Jack	NTD	N/A

CONTINUING MEDICAL EDUCATION

Evaluation and CME Certificates

All physicians are asked to complete daily evaluations.

To receive your CME certificate of credit, go to

www.CmeCertificateOnline.com

Scroll down to the SGSU listing and click on the
“Society of Government Service Urologists 61st Kimbrough Annual Meeting”
event. On the site, you will be asked to enter a password which is

“61stannual”

and evaluate various aspects of the program. You may then print your certificate
immediately (encouraged). **No more waiting for the mail!**

A copy of the certificate will also be emailed to you in case you need to print
additional copies (be sure to check your junk email folder).

IMPORTANT!

The online certificate site will be available the end of the day

January 19, 2014 through February 19, 2014.

After that date, the site will be removed and certificates will no longer be
available. If you need a CME certificate, you must complete the evaluation and
certificate process prior to that date; otherwise you will
forfeit your credit for the course.

Your certificate will show the hours you entered.
Please address any questions about the process to:

Sheryl Morgan at

Sheryl@AmedcoEmail.com

or 651-789-3730.



PROGRAM-AT-A-GLANCE

Wednesday, January 15

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
2:00 PM - 6:00 PM	Registration	Bel Aire Ballroom Foyer
2:00 PM - 5:00 PM	Slide Preview Station	Bel Aire Ballroom Foyer
3:00 PM - 5:00 PM	Board of Director's Meeting	Coronado Room
6:30 PM - 8:30 PM	Welcome Reception	Catalina Ballroom/Terrace

Thursday, January 16

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
6:30 AM - 4:00 PM	Exhibit Hall open	Fairbanks Ballroom
6:30 AM - 7:30 AM	Network Breakfast in Exhibit Hall	Fairbanks Ballroom
7:00 AM - 5:00 PM	Registration	Bel Aire Ballroom Foyer
7:00 AM - 5:00 PM	Slide Preview Station	Bel Aire Ballroom Foyer
7:15 AM - 7:45 AM	Welcome & Presentations	Bel Aire Ballroom
7:45 AM - 8:15 AM	Keynote Address	Bel Aire Ballroom
8:15 AM - 10:00 AM	Session I: Resident Competition	Bel Aire Ballroom
10:00 AM - 10:45 AM	Refreshment Break in Exhibit Hall	Fairbanks Ballroom
10:45 AM - 12:30 PM	Session II: Resident Competition	Bel Aire Ballroom
12:30 PM - 1:50 PM	Manthos Resident / Young Urologist Luncheon	Coronado Ballroom
12:30 PM - 1:00 PM	Lunch break	Fairbanks Ballroom
1:00 PM - 2:00 PM	Astellas Symposium (non CME)	Bel Aire Ballroom
2:00 PM - 2:20 PM	Session III: Resident Competition	Bel Aire Ballroom
2:20 PM - 3:30 PM	Clinical Research Presentations	Bel Aire Ballroom
3:30 PM - 3:45 PM	Refreshment Break in Exhibit Hall	Fairbanks Ballroom
3:45 PM - 5:00 PM	Session IV: Research Competition	Bel Aire Ballroom
6:00 PM - 6:30 PM	GU Bowl Official Tailgate Party	Bel Aire Ballroom Foyer
6:30 PM - 7:30 PM	GU Bowl	Bel Aire Ballroom

Friday, January 17

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
6:30 AM - 4:00 PM	Exhibit Hall open	Fairbanks Ballroom
6:30 AM - 7:30 AM	Network Breakfast in Exhibit Hall	Fairbanks Ballroom
7:00 AM - 5:00 PM	Registration	Bel Aire Ballroom Foyer
7:00 AM - 5:00 PM	Slide Preview Station	Bel Aire Ballroom Foyer
7:30 AM - 9:45 AM	Session V: Urothelial Cancer/Bladder	Bel Aire Ballroom
9:45 AM - 10:30 AM	Refreshment Break in Exhibit Hall	Fairbanks Ballroom
10:30 AM - 12:30 PM	Session VI: Prostate Cancer	Bel Aire Ballroom
12:30 PM - 1:30 PM	Prostate Conditions Education	Bel Aire Ballroom
	Council Lunch Symposium (non CME)	Bel Aire Ballroom

PROGRAM-AT-A-GLANCE

Friday, January 17 (continued)

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
12:30 PM - 2:00 PM	Exhibit Hall Closed	Fairbanks Ballroom
1:35 PM - 2:00 PM	Session VI: Research Papers (cont.)	Bel Aire Ballroom
2:00 PM - 3:30 PM	Session VII: BPH/Prostatitis/CPPS	Bel Aire Ballroom
3:30 PM - 3:45 PM	Refreshment Break in Exhibit Hall	Fairbanks Ballroom
3:45 PM - 5:15 PM	Session VIII: Testicular Cancer	Bel Aire Ballroom
6:00 PM - 7:30 PM	Poster Sessions	Catalina Ballroom

Saturday, January 18

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
6:30 AM - 4:00 PM	Exhibit Hall open	Fairbanks Ballroom
6:30 AM - 7:30 AM	Network Breakfast in Exhibit Hall	Fairbanks Ballroom
7:00 AM - 5:00 PM	Registration	Bel Aire Ballroom Foyer
7:00 AM - 5:00 PM	Slide Preview Station	Bel Aire Ballroom Foyer
7:30 AM - 9:30 AM	Session IX: Stones	Bel Aire Ballroom
9:30 AM - 10:15 AM	Refreshment Break in Exhibit Hall	Fairbanks Ballroom
10:15 AM - 12:30 PM	Session X: Pediatric Urology	Bel Aire Ballroom
12:30 PM - 2:00 PM	SGSU Business Lunch	Catalina Ballroom
12:30 PM - 2:00 PM	Exhibit Hall Closed	Fairbanks Ballroom
2:00 PM - 3:30 PM	Session XI: Andrology - Infertility/ED	Bel Aire Ballroom
3:30 PM - 3:45 PM	Refreshment Break in Exhibit Hall	Fairbanks Ballroom
3:45 PM - 5:15 PM	Session XII: Female Incontinence Pelvic Medicine	Bel Aire Ballroom
6:30 PM - 9:30 PM	Kathy and Preston Littrell Awards Reception / Dinner	Catalina Ballroom/Terrace

Sunday, January 19

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
6:30 AM - 7:30 AM	Continental Breakfast in Foyer	Bel Aire Ballroom Foyer
7:00 AM - 12:00 AM	Slide Preview Station	Bel Aire Ballroom Foyer
7:00 AM - 12:00 PM	Registration	Bel Aire Ballroom Foyer
7:30 AM - 9:00 AM	Session XIII: Kidney Cancer	Bel Aire Ballroom
9:00 AM - 11:00 AM	Session XIV: GU Trauma	Bel Aire Ballroom
11:00 AM - 12:05 PM	Medivation Symposia (non CME)	Bel Aire Ballroom
12:05 PM - 1:00 PM	Lunch Served	Catalina Terrace
1:00 PM - 4:00 PM	Mock Oral Boards	Catalina Ballroom

Please sign up for Mock Oral Boards at Registration Desk.

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EXHIBIT HALL ACTIVITIES

Visit the Exhibit Hall For The Education!

- See first hand the latest in urology technology & services
- Enjoy hearty networking breakfasts
- Re-Energize with lively refreshment breaks
- Visit the exhibitors to get your raffle tickets for prizes!

Exhibit Hall is located in the Fairbanks Ballroom

Thursday, Jan. 16 Schedule:

6:30am - 4:00pm:	Hours Open
6:30am - 7:30am:	Networking Breakfast
12:30pm - 1:00pm:	Lunch Hour in Exhibit Hall
3:30pm - 3:45pm:	Refreshment Break

Friday, Jan. 17 Schedule:

6:30am - 4:00pm:	Hours Open
6:30am - 7:30am:	Networking Breakfast
9:45am - 10:30am:	Refreshment Break
12:30pm - 2:00pm:	Exhibit Hall Closed
3:30pm - 3:45pm:	Refreshment Break

Saturday, Jan. 18 Schedule:

6:30am - 4:00pm:	Hours Open
6:30am - 7:30am:	Networking Breakfast
9:30am - 10:15am:	Refreshment Break
12:30pm - 2:00pm:	Exhibit Hall Closed
3:30pm - 3:45pm:	Refreshment Break

Sunday, Jan. 19 Schedule: (optional for exhibitors)

6:30am - 11:00am:	Hours Open in Foyer
6:30am - 7:30am:	Networking Breakfast

*Visit with the Exhibitors during the
Breakfasts, Refreshment Breaks
to get raffle tickets for prizes!
Raffle prize drawing will be held during
afternoon breaks.*

COMMERCIAL EXHIBITORS

We thank our commercial exhibitors for their support of the Kimbrough Annual Meeting. Please be sure to visit them in the Fairbanks Ballroom during the meeting.

Astellas Pharma US

Algeta/Bayer

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**Prostate Conditions Education
Council**

GU BOWL

The Tradition lives on!

The SGSU will again have it's Annual GU Bowl



Thursday evening

**GU Bowl Official Tailgate Party
6:00 pm, Bel Aire Ballroom Foyer**

**GU Bowl
6:30 pm, Bel Aire Ballroom**



WEDNESDAY, JANUARY 15

Outline of Scientific Program

61st Kimbrough

Annual Seminar * San Diego Sheraton Harbor Island Hotel

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
2:00 PM - 6:00 PM	Registration	Bel Aire Ballroom Foyer
2:00 PM - 6:00 PM	Slide Preview Station	Bel Aire Ballroom Foyer
3:00 PM - 5:00 PM	SGSU Board of Directors Meeting	Coronado Ballroom
6:30 PM - 8:30 PM	Welcome Reception	Catalina Ballroom/Terrace

6:30pm-8:30pm - Catalina Ballroom & Terrace

Welcome Reception

*Come and enjoy the start of the SGSU meeting
with tasty food stations while visiting with colleagues.*

Be sure to bring your Event & Drink tickets!

THURSDAY, JANUARY 16

Outline of Scientific Program

61st Kimbrough

Annual Seminar ✱ San Diego Sheraton Harbor Island Hotel

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
6:30 AM - 4:00 PM	Exhibit Hall open	Fairbanks Ballroom
6:30 AM - 7:30 AM	Network Breakfast in Exhibit Hall	Fairbanks Ballroom
7:00 AM - 5:00 PM	Registration	Bel Aire Ballroom Foyer
7:00 AM - 5:00 PM	Slide Preview Station	Bel Aire Ballroom Foyer
7:15 AM - 7:45 AM	Welcome & Presentations	Bel Aire Ballroom
7:45 AM - 8:15 AM	Keynote Address	Bel Aire Ballroom
8:15 AM - 10:00 AM	Session I: Resident Competition	Bel Aire Ballroom
10:00 AM - 10:45 AM	Refreshment Break in Exhibit Hall	Fairbanks Ballroom
10:45 AM - 12:30 PM	Session II: Resident Competition	Bel Aire Ballroom
12:30 PM - 1:50 PM	Manthos Resident / Young Urologist Luncheon	Coronado Ballroom
12:30 PM - 1:00 PM	Lunch Break in Exhibit Hall	Fairbanks Ballroom
1:00 PM - 2:00 PM	Astellas Symposium (non CME)	Bel Aire Ballroom
2:00 PM - 2:20 PM	Session III: Resident Competition	Bel Aire Ballroom
2:20 PM - 3:30 PM	Clinical Research Presentations	Bel Aire Ballroom
3:30 PM - 3:45 PM	Refreshment Break in Exhibit Hall	Fairbanks Ballroom
3:45 PM - 5:00 PM	Session IV: Research Competition	Bel Aire Ballroom
6:00 PM - 6:30 PM	GU Bowl Official Tailgate Party	Bel Aire Ballroom Foyer
6:30 PM - 7:30 PM	GU Bowl	Bel Aire Ballroom

OPENING CEREMONIES

7:00 AM - 8:15 AM - Bel Aire Ballroom

7:00AM - 7:15AM

Welcome & Announcements

CDR Sean Stroup, MC, USN

7:15AM - 7:20AM

Presentation of Colors - Color Guard

7:20AM - 7:25AM

Invocation: Chaplain

National Anthem

7:25AM - 7:35AM

History of Urology in San Diego

Seth A. Cohen, MD

LCDR James Masterson, MC, USN

7:35AM - 7:45AM

Welcome from NMCSD Commander

RDML Bruce Gillingham, MC, USN

7:45AM - 8:15AM

AUA Keynote Address

Dennis Pessis, MD, Immediate AUA Past President

SESSION I - RESIDENTS COMPETITION

Clinical Research

8:15 AM - 10:00 AM - Bel Aire Ballroom

Papers are five minutes, following a two minute discussion

Moderators:

LTC Timothy Brand MC, USA & CAPT (Ret.) Christopher J. Kane, MD, FACS

Judges: John M. Barry, MD, LCDR Matthew S. Christman, MC, USN &

COL Andrew C. Peterson, MC, USAR

- 1 8:15AM CPT MaryEllen T. Dolat, MC, USAF**
Rho Kinase-Dependent Regulation of Detrusor Smooth Muscle Enables Acute Regulation of Human Bladder Compliance.
- 2 8:22AM CPT Tara K Ortiz, MC, USA**
Inflammatory Response to Escherichia Coli Urinary Tract Infection in the Neurogenic Bladder of the Spinal Cord Injured Host.
- 3 8:29AM CPT Tara K Ortiz, MC, USA**
The Role of Type I PILI In Adherence and Invasion into Neurogenic Bladder Epithelium In a Spinal Cord Injury Rat Model.
- 4 8:36am MAJ Philip Rosen, MC, USA**
Prognostic Potential of ERG Protein Levels in Prostate Cancer.
- 5 8:43AM CPT James Farrell, MC, USA**
Higher Grade Prostate Cancer Stratification By ERG Oncoprotein and SPINK1 Expression in Caucasian American and African American Men.
- 6 8:50AM CPT Kevin J Rycyna, MC, USAF**
Nuclear Localization of Fatty Acid Synthase Correlates with Gleason Grade in Prostate Cancer.
- 7 8:57AM CPT Stephen Overholser, MC, USA**
Proportion of Men Diagnosed with Prostate Cancer in a Population-based Study for Whom Active Surveillance is an Appropriate Management Strategy.
- 8 9:04AM LTC Raymond S. Lance, MC, USAR**
Pathologic Findings at Radical Prostatectomy of Patient's Eligible for Active Surveillance: Stratification by Selection Criteria and Race.

- 9 9:11AM CPT Sean Q. Kern, MC, USA**
Laparoscopic Radical Prostatectomy Demonstrates Less Morbidity Than Open Radical Prostatectomy: An Analysis of the American College of Surgeons-National Surgical Quality Improvement Program Database with Focus on Surgical Trainee Involvement.
- 10 9:18AM LT Jonathan H. Berger, MC, USN**
Energy-Based Minimally Invasive Prostatectomy: Smart-Energy Not No-Energy.
- 11 9:25AM MAJ Timothy S Baumgartner, MC, USAF**
Incidence and Timing of Genitourinary Sequelae Following Radiation Therapy For Prostate Cancer.
- 12 9:32AM CPT James S. Ebertowski, MC, USA**
Incidence of Gastroenterologic Seauelae and Non-Urologic Cancer Following Radiation Therapy For Prostate Cancer.
- 13 9:39AM CPT Sean Q. Kern, MC, USA**
The Prevalence of Persistent Prostate Cancer After Radiotherapy Detected at Radical Cystoprostatectomy for Bladder Cancer.
- 14 9:46AM LCDR Justin J. Nork, MC, USN**
Effect of Treatment of Youth Varicocele on Semen Analysis: A Meta-Analysis.
- 15 9:53AM LCDR Suzanne R. Gudeman, MC, USN**
Operating Characteristics of Follicle Stimulating Hormone in Azoospermic Men.
- 16 10:00AM LCDR Gregory T. Chesnut, MC, USN**
Factors Contributing To Post-Surgical Follow Up Among Men Undergoing Vasectomy Reversal.

10:00am - 10:45am

Refreshment Break in Exhibit Hall

*Collect Raffle Tickets from
the Exhibitors for chances to win prizes!!*

SESSION II - RESIDENTS COMPETITION

Clinical Research

10:45 AM - 12:30 PM - Bel Aire Ballroom

Papers are five minutes, following a two minute discussion

Moderators:

CDR James O. L'Esperance, MC, USN & George Chiang, MD

- 17 10:45AM CPT Nicholas J. Kuntz, MC, USA**
Balloon Dilation of the Ureter: A Contemporary Review of Outcomes and Complications.
- 18 10:52AM CPT Uzoamaka O. Nwoye, MC, USAF**
Fluoroscopy Time During Uncomplicated Unilateral Ureteroscopy For Urolithiasis Decreases With Urology Resident Experience.
- 19 10:59AM CPT Matthew T. Stringer, MC, USAF**
Training Reduces Fluoroscopy Time During Unilateral Ureteroscopy By Urology Residents.
- 20 11:06AM LT Michael T. Marshall, MC, USN**
Hyperlipidemia is Associated With an Increased Risk of Nephrolithiasis.
- 21 11:13AM LT Kimberly Fischer, MC, USN**
Recurrence Free Survival Following the First Episode of Upper-Tract Calculi in a Pediatric Cohort.
- 22 11:20AM LT Patrick L. Scarborough, MC, USN**
Should Prenatal Hydronephrosis That Resolves Before Birth Be Followed Postnatally? An Analysis and Comparison to Persistent Prenatal Hydronephrosis.
- 23 11:27AM LT David L. Griffin, MC, USN**
Post-prostatectomy Male Sling Revision and Early Results.
- 24 11:34AM LT Jack M. Zuckerman, MC, USN**
Evaluation of Salvage Male Transobturator Sling Placement Following Recurrent Stress Urinary Incontinence After Failed Transobturator Sling.
- 25 11:41AM Seth D. Cohen, MD, MPH**
Perineal Minimally Invasive Technique for Cylinder Length Adjustment.

- 26 11:48AM CPT Abhay Singh, MC, USA**
The Relationship of Lower Urinary Tract Symptoms and Recurrence after Anterior Urethroplasty.
- 27 11:55AM CPT Ryan W. Speir, MC, USA**
Effects of Valproic Acid and Dexamethasone in Acute Kidney Ischemia-Reperfusion Injury Model.
- 28 12:02PM 2LT Stephanie Knapp, USA**
Follow-up of Carcinoma in Situ Involving the Distal Ureter at Cystectomy: Evaluation of Long-term Oncological Outcome.
- 29 12:09PM LT Michael A. Parenteau, MC, USN**
Successful Surgical Treatment of Weeping Kidney Syndrome Following Living Donor Renal Allotransplantation.
- 30 12:16PM CPT Marc R. Walker, MC, USA**
Impact of Smoking Status at Diagnosis on Disease Recurrence and Death in Clear Cell Renal Cell Carcinoma.
- 31 12:23PM CPT Matthew C. Kasprenski, MC, USA**
National Impact of Research Presented By Resident Physicians at the Kimbrough Urological Seminar.

Manthos Resident / Young Urologist Lunch Program

12:30pm - 1:50pm - Coronado Ballroom

Featuring Dr. Dennis Pessis, Imm. AUA Past President &

Dr. Eugene Rhee, Imm. CUA Past President

"Staying Active in the AUA and other Societies"

12:30pm - 1:00pm

Lunch provided by SGSU in the Fairbanks Ballroom

1:00pm - 2:00pm - Bel Aire Ballroom

Evaluating and Treating Patients with Overactive Bladder.

Matt Rosenberg, MD, Mid-Michigan Health Center

Supported by Astellas - Non CME Symposium

SESSION III - RESIDENTS COMPETITION

Clinical Research

2:00 PM - 2:21 PM - Bel Aire Ballroom

Papers are five minutes, following a two minute discussion

Moderators:

MAJ William Hilton, MC, USAF & CAPT Lisa Cartwright, MC, USN

- 32 **2:00PM LT Eric D. Biewenga, MC, USN**
The Incidence of Urotrauma in Operation Enduring Freedom: the Rise in External Genitalia Injury.
- 33 **2:07PM CPT Richard B. Knight, MC, USAF**
Preliminary Results of a Randomized Controlled Trial Comparing Liposomal Bupivacaine Versus 0.25% Bupivacaine For Laparoscopic and Robotic Urologic Surgery.
- 34 **2:14PM CPT Marc R. Walker, MC, USA**
Comparison Of Outcomes After Transurethral Resection Versus Photovaporization Of The Prostate With Respect To Trainee Involvement Utilizing ACS-NSQIP.

CLINICAL RESEARCH PRESENTATIONS

2:21 PM - 3:30 PM - Bel Aire Ballroom

Papers are five minutes, following a two minute discussion

Moderators:

MAJ William Hilton, MC, USAF & CAPT Lisa Cartwright, MC, USN

- 35 **2:21PM LT Eric Biewenga MC, USN**
Robotic-assisted Transvesical Repair of a Colovesical Fistula.
- 36 **2:28PM MAJ Steven J. Hudak, MC, USA**
Outcomes of Genitourinary Injury in Male Veterans of Operation Iraqi Freedom and Operation Enduring Freedom Receiving Care at Veterans Administration Health Care Facilities.

- 37 2:35PM CPT Abhay Singh, MC, USA**
Critical Analysis of the Time From Initial Patient Presentation to Referral for Definitive Bulbar Urethroplasty.
- 38 2:42PM COL Andrew C. Peterson, MC, USAR**
An Update On The Evolving Urethroplasty Options For Bulbar Urethral Stricture Disease; More Options Less Complications.
- 39 2:49PM LTC David James Osborn, MC, USA**
Mesh Perforation After Pelvic Surgery: Trocar Injury Matters.
- 40 2:56PM LCDR Chong H. Choe, MC, USN**
Long-Term Outcomes of Autologous Fascial Sling in Complex Stress Urinary Incontinence.
- 41 3:03PM LCDR Chong H. Choe, MC, USN**
Urodynamic Parameters Associated With The Resolution Of Overactive Bladder Symptoms After Anterior Vaginal Wall Prolapse Repair.
- 42 3:10PM MAJ Timothy J. Tausch, MC, USA**
In-situ Urethroplasty Decreases Urethral Stricture Formation After Aus Cuff Erosion.
- 43 3:17PM Seth D. Cohen, MD, MPH**
Hemostatic Matrix Application to Reduce Post-Operative Scrotal Hematoma Formation during Inflatable Penile Implantation.
- 44 3:24PM LCDR Paul R. Womble, MC, USN**
The Incidence Of Active Surveillance For Primary Management Of Low-risk Prostate Cancer In A State-wide Quality Improvement Collaborative.

3:30pm - 3:45pm

in Exhibit Area

Refreshment & Network Break

*Collect Raffle Tickets from
the Exhibitors for chances to win prizes!!*

SESSION IV - RESEARCH COMPETITION

Clinical Research

3:45 PM - 5:00 PM - Bel Aire Ballroom

Papers are five minutes, following a two minute discussion

Moderators:

CDR Timothy Powell, MC, USN, LCDR Michael Santomauro, MC, USN &
CDR Don Crain, MC, USN

- 45 **3:45PM MAJ Timothy J. Tausch, MC, USA**
High Submuscular Versus Space Of Retzius Placement Of IPP Reservoirs:
What Are Surgeons Saying?
- 46 **3:52PM COL (Ret.) Richard A. Watson, MC, USA**
Testosterone Transfer Toxicity – Recognizing And Reducing The Risk.
- 47 **3:59PM COL (Ret.) Richard A. Watson, MC, USA**
Performance-enhancing Medications In Surgery: Lance Armstrong In The
Operating Room?
- 48 **4:06PM CPT Richard Greene, MC, USA**
Surgeon Performance and Distractions in the Operating Room: A
Randomized, Controlled, Crossover Trial.
- 49 **4:13PM LT Jonathan H. Berger, MC, USN**
Laparoscopic Versus Robotic Prostatectomy: Is There A Difference?
- 50 **4:20PM MAJ John E. Musser, MC, USA**
Nerve Sparing Prostatectomy For High Risk Clinically Localized Prostate
Cancer.
- 51 **4:27PM CDR (Ret.) Brian K. Auge, MD, FACS**
Transvesical Robotic-assisted Bladder Diverticulectomy- Description of
Technique.
- 52 **4:34PM LTC David J. Osborn, MC, USA**
Urinary Retention Rates After Intravesical Onabotulinumtoxin A Injection
For Overactive Bladder In Clinical Practice.
- 53 **4:41PM LTC David J. Osborn, MC, USA**
Simple Cystectomies For Benign Disease: Results Of A 10-year
Retrospective Study.

- 54 **4:48PM COL Marvin J. Van Every, MC, USA**
Contrast Nephropathy: Is it an Issue in the Outpatient Setting?
- 55 **4:48PM Douglas W. Storm, MD**
Determining Factors Affecting Missed Patient Appointments in a Midwest Tertiary Care Pediatric Urology Clinic.



GU Bowl Official Tailgate Party - 6:00pm
Bel Aire Ballroom Foyer

GU Bowl - 6:30 pm
Bel Aire Ballroom



FRIDAY, JANUARY 17

Outline of Scientific Program

61st Kimbrough

Annual Seminar ✱ San Diego Sheraton Harbor Island Hotel

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
6:30 AM - 4:00 PM	Exhibit Hall open	Fairbanks Ballroom
6:30 AM - 7:30 AM	Network Breakfast in Exhibit Hall	Fairbanks Ballroom
7:00 AM - 5:00 PM	Registration	Bel Aire Ballroom Foyer
7:00 AM - 5:00 PM	Slide Preview Station	Bel Aire Ballroom Foyer
7:30 AM - 9:45 AM	Session V: Urothelial Cancer/Bladder	Bel Aire Ballroom
9:45 AM - 10:30 AM	Refreshment Break in Exhibit Hall	Fairbanks Ballroom
10:30 AM - 12:30 PM	Session VI: Prostate Cancer	Bel Aire Ballroom
12:30 PM - 1:30 PM	PCEC Lunch Symposium	Bel Aire Ballroom
12:30 PM - 2:00 PM	Exhibit Hall Closed	Fairbanks Ballroom
1:35 PM - 2:00 PM	Session VI (cont.) Research Papers	Bel Aire Ballroom
2:00 PM - 3:30 PM	Session VII: BPH/Prostatitis/CPPS	Bel Aire Ballroom
3:30 PM - 3:45 PM	Refreshment Break in Exhibit Hall	Fairbanks Ballroom
3:45 PM - 5:15 PM	Session VIII: Testicular Cancer	Bel Aire Ballroom
6:00 PM - 7:30 PM	Poster Sessions	Catalina Ballroom

Session V: Urothelial Cancer/Bladder

7:30 AM - 9:45 AM - Bel Aire Ballroom

Moderator:

MAJ Joseph Sterbis, MC, USA

- 56 **7:30AM** **COL Gregory Thibault, MC, USA**
State of the Art: Management of Superficial Bladder Cancer.
- 57 **8:00AM** **Michael Williams, MD**
Update on Surgical Management of Bladder Cancer and Urinary Diversion.
- 58 **8:30AM** **Mihir Desai, MD**
Tips and Tricks for Robotic Cystectomy.
- 59 **9:00AM** **MAJ Joseph Sterbis, MC, USA**
Challenging Cases: Panel Discussion
- 60 **9:15AM** **LTC Timothy Brand MC, USA**
State of the Art: Simulation and Teaching Resident.

9:45am - 10:30am

Refreshment & Network Break
in Exhibit Area



Collect Raffle Tickets from
the Exhibitors for chances to win prizes!!

Session VI: Prostate Cancer

10:30 AM - 12:30 PM - Bel Aire Ballroom

Moderator:

CDR Jamey Sarvis, MC, USN

- 61 10:30AM Judd Moul, MD**
PSA Screening and the Role of New Diagnostics for Prostate Cancer.
- 62 10:50AM CAPT (Ret.) Christopher J. Kane, MD, FACS**
Active Surveillance.
- 63 11:01AM LCDR Robert Marks, MC, USN**
Prostate Imaging - US & MRI
- 64 11:15AM CAPT (Ret.) Christopher J. Kane, MD, FACS**
Improving Outcomes for RALP.
- 65 11:36AM Judd Moul, MD**
Managing High Risk Prostate Cancer.
- 66 11:56AM CDR Harvey Wilds, MC, USN**
Radiotherapy: Salvage Techniques.
- 67 12:11PM CAPT (Ret.) Fred Millard, MD**
Sequencing Agents for CRPC.

Lunch Program

12:30pm - 1:30pm - Bel Aire Ballroom

**Understanding How New Biomarkers Will Assist in the
Diagnosis and Prognosis of Prostate Cancer.**

E. David Crawford, MD, Univ. of Colorado

Supported by PCEC - Non CME Symposium

Session VI (cont.): Research Papers

1:35 PM - 2:00 PM - Bel Aire Ballroom

Papers are five minutes, following a one minute discussion

Moderators:

Michael Liss, MD & LCDR Susan Lahey, MC, USN

- 68 1:35PM Torrence M. Wilson, MD**
Progress of In Situ Gene Therapy with Radioiodine and the Sodium Iodide Symporter Gene For Locally Recurrent Prostate Cancer Following External Beam Radiotherapy.
- 69 1:41PM LCDR Paul R. Womble, MC, USN**
Infection-Related Hospitalizations After Prostate Biopsy in a State-wide Quality Improvement Collaborative.
- 70 1:47PM Elliot L. Cohen, MD, FACS**
Targeted Antimicrobial Prophylaxis for TRUS Prostate Biopsy.
- 71 1:53PM CDR (Ret.) Brian K. Auge, MD, FACS**
Robotic Assisted Simple Prostatectomy is Effective for Managing Severe LUTS in Patients with Large Prostates.



Session VII: BPH/Prostatitis/CPPS

2:02 PM - 3:30 PM - Bel Aire Ballroom

Moderator:

CDR Hernan Altamar, MC, USN

- 72 2:02PM Claus Roehrborn, MD
Update on AUA Guidelines for BPH & Medical Therapies.
- 73 2:35PM Kellogg Parsons, MD
Surgical Therapies for BPH.
- 74 3:05PM Claus Roehrborn, MD
Urolift Procedure and Outcomes.
- 3:25PM Question & Answer (5 minutes)-CDR Hernan Altamar, MC, USN



3:30pm - 3:45pm

*Refreshment & Network Break
in Exhibit Area*

*Collect Raffle Tickets from
the Exhibitors for chances to win prizes!!*



Session VIII: Testicular Cancer

3:45 PM - 5:15 PM - Bel Aire Ballroom

Moderator:

LTC Timothy Brand MC, USA

- 75 **3:45PM Siamak Daneshmand, MD**
Stage I Testicular Cancer- The Case for Surveillance.
- 76 **4:05PM CDR James O. L'Esperance, MC, USN**
The Case for RPLND in Stage I NSGCT.
- 77 **4:25PM Siamak Daneshmand, MD**
State of the Art: Managing Advanced Retroperitoneal Disease.
- 78 **4:56PM LTC Timothy Brand MC, USA & LCDR Alden Chiu, MC, USN**
CDR James L'Esperance, MC, USN, Siamak Daneshmand, MD
Challenging Cases Panel.

Poster Sessions

6:00 PM - 7:30 PM - Catalina Ballroom

15 minutes of viewing posters, followed by presentations

Posters are two minutes each

Moderators/Judges: COL (Ret,) Martin L. Dresner, MD, FACS, Douglas W. Storm, MD,
CDR Don Crain, MC, USN

- 79 **CPT Humberto Vilarreal, MC, USA**
Open Randomized Prospective Study to Evaluate the Use of a Continuous Local Anesthetic Infusion for Pain Management Following Penile Prosthesis Procedure.
- 80 **CPT MaryEllen T. Dolat, MC, USAF**
Completely Intracorporeal Robotic-Assisted Laparoscopic Ileovesicostomy Is Associated With Earlier Return Of Bowel Function.
- 81 **LT Kimberly Fischer, MC, USN**
Congenital Prepubic Sinus: A Case Report.

- 82 LT Eric Biewenga MC, USN**
Laparoscopic Repair of a Spontaneous Intraperitoneal Bladder Rupture in a Healthy Male.
- 83 MAJ William Hilton, MC, USAF**
Case Series of Primary Primitive Neuroectodermal Tumors of the Kidney.
- 84 CPT MaryEllen T. Dolat, MC, USAF**
The Role Of MRI-guided Prostate Biopsies In Difficult To Detect Prostate Cancer.
- 85 LCDR Justin J. Nork, MC, USN**
Xanthogranulomatous Pyelonephritis Presenting as Local Recurrence of Renal Cell Carcinoma at Bolster Site.
- 86 LT David L. Griffin, MC, USN**
Genitourinary Tuberculosis presenting as a Scrotal Abscess.
- 87 CPT Kevin J. Rycyna MC, USAF**
Blunt Force Trauma As A Rare Mechanism For Chyluria: A Case Report.
- 88 CPT J.J. Fantony MC, USA**
Trends And Predictors Of Ureteral Stenting In Laparoscopic Colorectal Surgery.
- 89 MAJ Timothy J. Tausch, MC, USA**
High Patient Satisfaction Of Inflatable Penile Prosthesis Insertion With Synchronous Penile Plication For Correction Of Erectile Dysfunction And Peyronie's Disease.
- 90 LTC David J. Osborn, MC, USA**
Postoperative Pain Outcomes After Transvaginal Mesh Revision.
- 91 COL Andrew C. Peterson, MC, USAR**
The Management Of Bulbar Urethral Stricture Disease Before Referral For Definitive Repair: Have Our Practice Patterns Changed?
- 92 MAJ Timothy J. Tausch, MC, USA**
Initial Two Year Experience With High Submuscular Placement Of Inflatable Penile Prosthesis Reservoirs.
- 93 LCDR Justin J. Nork, MC, USN**
Youth Varicocele and Semen Analysis: A Meta-Analysis.

94 LT Patrick L. Scarborough, MC, USN

Easter Egg Hunt: A Case Presentation.

95 CPT Ryan W. Speir, MC, USA

A daVinci S to Si Curriculum on a 3D VR Robotic Surgical Simulator May Be Efficiently Employed to Facilitate Surgeon Transition.

96 CDR Rustin C. Walters, MC, USN

Effectiveness Of 40mg Starting Dose Of Fortesta® Testosterone 2% Gel Among Hypogonadal Men.

*Be sure to hear our Keynote Speaker
Vice Admiral Michael McCabe
(former Commander, 3rd Fleet, 3 Star Admiral)
during the Preston & Kathy Littrell Dinner on
on Saturday evening.*



Vice Adm. Michael J. McCabe, became Commander, 3rd Fleet in May 28, 2003 in an informal change of command ceremony held aboard USS Coronado (AGF 11). He previously had served as chief of staff for 3rd Fleet and assumed his duties having most recently served as Director, Air

Warfare (N88) in Washington, DC. Vice Adm. McCabe is the son of a World War II and Korean War naval aviator who was killed on active duty.

Michael McCabe was born in San Diego and raised in the San Francisco Bay area. He is a graduate of the University of Portland, received his commission through Aviation Officer Candidate School and was designated a naval flight officer in 1971.

***We welcome Vice Admiral Michael McCabe to the
61st Annual Kimbrough Meeting!***

SATURDAY, JANUARY 18

Outline of Scientific Program

61st Kimbrough

Annual Seminar ✱ San Diego Sheraton Harbor Island Hotel

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
6:30 AM - 4:00 PM	Exhibit Hall open	Fairbanks Ballroom
6:30 AM - 7:30 AM	Network Breakfast in Exhibit Hall	Fairbanks Ballroom
7:00 AM - 5:00 PM	Registration	Bel Aire Ballroom Foyer
7:00 AM - 5:00 PM	Slide Preview Station	Bel Aire Ballroom Foyer
7:30 AM - 9:30 AM	Session IX: Stones	Bel Aire Ballroom
9:30 AM - 10:15 AM	Refreshment Break in Exhibit Hall	Fairbanks Ballroom
10:15 AM - 12:30 PM	Session X: Pediatric Urology	Bel Aire Ballroom
12:30 PM - 2:00 PM	SGSU Business Lunch	Catalina Ballroom
12:30 PM - 2:00 PM	Exhibit Hall Closed	Fairbanks Ballroom
2:00 PM - 3:30 PM	Session XI: Andrology - Infertility/ED	Bel Aire Ballroom
3:30 PM - 3:45 PM	Refreshment Break in Exhibit Hall	Fairbanks Ballroom
3:45 PM - 5:15 PM	Session XII: Female Incontinence Pelvic Medicine	Bel Aire Ballroom
6:30 PM - 9:30 PM	Kathy and Preston Littrell Awards Reception / Dinner	Catalina Ballroom/Terrace

Session IX: Stones

7:30 AM - 9:30 AM - Bel Aire Ballroom

Moderator:

CDR (Ret.) Brian K. Auge, MD, FACS

- 97 7:30AM CDR (Ret.) Brian K. Auge, MD, FACS**
Review of Medical Management of Urolithiasis.
- 98 7:50AM Manoj Monga, MD**
Shockwave Lithotripsy: Is It Dead?
- 99 8:20AM CAPT Roger Sur, MC, USNR**
Tips, Tricks and New Horizons for URS.
- 100 8:40AM Manoj Monga, MD**
Instrumentation and Simulation in Stone Disease.
- 101 9:00AM CDR Hernan Altamar, MC, USN**
Tips for PCNL.
- 102 9:15AM Challenging Case Panel**

9:30pm - 10:15pm

Refreshment & Network Break ★ in Exhibit Area ★

*Collect Raffle Tickets from
the Exhibitors for chances to win prizes!!*

Session X: Pediatric Urology

10:15 AM - 12:30 PM - Bel Aire Ballroom

Moderator:

LCDR Matthew S. Christman, MC, USN

- 103 10:15AM Pasquale Casale, MD**
The Science of Small.
- 104 10:45AM George Kaplan, MD**
History of Vesicoureteral Reflux Management: From Past to Present.
- 105 11:15AM Pasquale Casale, MD**
Troubleshooting in Pediatric Robotics.
- 106 11:45AM Steven Kim, MD**
Value-Based Healthcare in Pediatric Urology.
- 107 12:15PM Douglas W. Storm, MD**
Challenging Cases of Vesicoureteral Reflux.

12:30pm - 2:00pm - Catalina Ballroom

SGSU BUSINESS LUNCH



Hear about the state of the branches of the Services

Session XI: Andrology - Infertility/ED

2:00 PM - 3:30 PM - Bel Aire Ballroom

Moderator:

CDR Rustin C. Walters, MC, USN

- 108 2:00PM Laurence Levine, MD**
Back to Basics: Testicular Pain and Hydrocele.
- 109 2:20PM Irwin Goldstein, MD**
Male & Female Sexual Dysfunction and Hormonal Replacement Therapies.

- 110 2:40PM Steven K. Wilson, MD, FACS**
IPP Tips and Tricks.
- 111 3:00PM Laurence Levine, MD**
Peyronies Disease.

3:30pm - 3:45pm

Take a Break!

Meet with the Exhibitors and enjoy Refreshments!

*Collect Raffle Tickets from
the Exhibitors for chances to win prizes!!*

SCIENTIFIC PROGRAM

SATURDAY, JANUARY 18, 2014

Session XII: Female Incontinence / Pelvic Medicine

3:45 PM - 5:15 PM - Bel Aire Ballroom

Moderator:

LCDR Chong H. Choe, MC, USN

- 112 3:45PM Michael Albo, MD**
State of the Art Management of SUI.
- 113 4:10PM Michelle Koski, MD**
What's New in OAB.
- 114 4:35PM Emily Cole, MD**
Robotics for Prolapse Surgery
- 5:00PM Discussion (15 minutes)**

6:30pm-9:30pm - Catalina Ballroom

Kathy & Preston Littrell Awards Reception/Dinner

*Featuring Keynote Speaker: Vice Admiral Michael McCabe
(former Commander, 3rd Fleet, 3 Star Admiral)*

SUNDAY, JANUARY 19

Outline of Scientific Program

61st Kimbrough

Annual Seminar ✱ San Diego Sheraton Harbor Island Hotel

<u>TIME</u>	<u>EVENT</u>	<u>ROOM</u>
6:30 AM - 7:30 AM	Continental Breakfast in Foyer	Bel Aire Ballroom Foyer
7:00 AM - 12:00 PM	Registration	Bel Aire Ballroom Foyer
7:00 AM - 12:00 PM	Slide Preview Station	Bel Aire Ballroom Foyer
7:30 AM - 9:00 AM	Session XIII: Kidney Cancer	Bel Aire Ballroom
9:00 AM - 11:00 AM	Session XIV: GU Trauma	Bel Aire Ballroom
11:00 AM - 12:05 PM	Medivation/Astellas Symposium	Bel Aire Ballroom
12:05 PM - 1:00 PM	SGSU Luncheon	Catalina Terrace
1:00 AM - 4:00 PM	Mock Oral Boards	Catalina Ballroom

SCIENTIFIC PROGRAM

SUNDAY, JANUARY 19, 2014

Session XIII: Kidney Cancer

7:30 AM - 9:00 AM - Bel Aire Ballroom

Moderator:

CDR Sean P. Stroup, MC, USN

- 115 7:30AM CDR Sean P. Stroup, MC, USN**
Prognosis in RCC.
- 116 7:45AM Ithaar Derweesh, MD**
State of the Art: Small Renal Masses.
- 117 8:15AM Mihir Desai, MD**
Laparoscopy Partial Nephrectomy Techniques - Tips/Tricks.

SCIENTIFIC PROGRAM

SUNDAY, JANUARY 19, 2014

Session XIV: GU Trauma

9:00 AM - 11:00 AM - Bel Aire Ballroom

Moderator:

CAPT Paul McAdams, MC, USN

- 118 9:00AM CDR Peter Shumaker, MC, USN**
Ablative Fractional Resurfacing For Treatment of Traumatic Scars.
- 119 9:30AM James Jazior, MD**
GU Trauma Guidelines Update.
- 120 10:00AM Joel Gelman, MD**
Urethral Stricture Evaluation and Management: An Overview.
- 121 10:30AM Jill Buckley, MD**
Management of Refractory Bladder Neck Contractures.
- 10:59AM Discussion (2 minutes)**

11:00am - 12:05pm - Bel Aire Ballroom

**XTANDI (enzalutamide) Capsules: An Option for Continuing the
Care of Patients with mCRPC in the Urology Practice.**

William Aronson, MD, UCLA

Supported by Medivation/Astellas - Non CME Symposium

**Lunch served following session - Provided by SGSU
in Catalina Ballroom Terrace**

MOCK ORAL BOARDS

1:00 PM - 4:00 PM - Catalina Ballroom

Need help for the boards?

*Be sure to sign up for this session at the
Registration Desk.*

*Attendees will circulate through examiner
stations and be asked board questions.*

**Looking forward to seeing
you all next year!
Location and dates to be
announced!**

RESIDENTS COMPETITION - I

ABSTRACTS

DETRUSOR SMOOTH MUSCLE-DEPENDENT ACUTE REGULATION OF HUMAN BLADDER COMPLIANCE

Mary Ellen T. Dolat, M.D., John E Speich, Ph.D.*, R. Wayne Barbee Ph.D.*, Paul H. Ratz, Ph.D.*, Adam P. Klausner, M.D.: Richmond, VA
(Presentation to be made by Dr. Dolat)

Purpose: It is generally accepted that bladder compliance changes only through chronic disease processes. Our work on rabbit bladder challenges this model, revealing that detrusor length-dependent preload (a measure of compliance) is acutely regulated by detrusor smooth muscle (**DSM**). Because DSM is in-series with afferent sensory nerves, alterations in DSM-dependent compliance regulation may have clinical consequences if such a system operates in human bladder. The present study was designed to examine this new model in human DSM (**hDSM**).

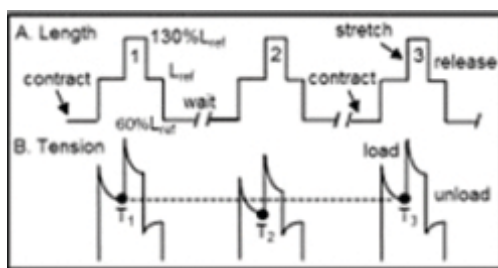
Methods: Strips of hDSM were obtained following cystectomy (male, age 25-62 y). First, an active length-tension curve identified the reference muscle length (**L_{ref}**). Then tissues were subjected to 3 sequential load-unload cycles and tension (**T**) was measured at **L_{ref}** for each cycle as an index of compliance (**T₁, T₂, T₃**; **see Fig for protocol**). To prevent spontaneous contraction, load-unload cycles were performed in 0mM Ca²⁺. Prior to cycles 1 & 3, tissues were contracted with KCl at 60%**L_{ref}** to mimic the final stage of a voiding contraction. No contraction occurred in the 20 min period at 60%**L_{ref}** between cycles 1 & 2. The rho kinase inhibitor H-1152 (0.3mM) was added to a set of tissues prior to cycle 3.

Results: In hDSM, $T_2/T_1 = 0.51$, which was < 1.0 ($n=3$, $p<0.05$) because a fraction of **T₁** at **L_{ref}** was lost to strain softening during loading to 130%**L_{ref}** and was not restored during the wait at 60% **L_{ref}**. $T_3/T_1 = 0.90$, which was not < 1.0 , indicating that, as in rabbit DSM, tension at **L_{ref}** lost during loading to 130% **L_{ref}** was restored by contraction at 60%**L_{ref}**. In tissues exposed to H-1152 during contraction prior to cycle 3, $T_3/T_1 = 0.59$, which was not $>$ the $T_2/T_1 = 0.46$ obtained prior to drug treatment ($n=3$), indicating that rho kinase inhibition prior to **T₃** prevented restoration of tension lost to strain softening. These data show that hDSM, like rabbit DSM, displays length-history- and rho kinase-dependent compliance regulation.

Conclusion: As in rabbit, compliance in hDSM can be acutely regulated. Pathological increases in the sensitivity of this mechanism may accentuate bladder tone during filling suggesting a relationship to overactive bladder.

Source of Funding: None

Figure



THE ROLE OF TYPE I PILI IN ADHERENCE AND INVASION INTO NEUROGENIC BLADDER EPITHELIUM IN A SPINAL CORD INJURY RAT MODEL

Tara K Ortiz MD, Ramiro Madden-Fuentes MD*, Rajeev Chaudhry MD*,
Zarine Balsara MD, PhD*, Yuping Tang*, Unwana Nseyo*, John S. Wiener
MD*, Sherry S. Ross MD* and Patrick Seed MD, PhD*: Durham, NC

Background: *E. coli* is the most common pathogen responsible for urinary tract infection (UTI). Type I pili are an important factor for bacterial adherence and invasion into the bladder epithelium. The neurogenic bladder is more susceptible to recurrent urinary tract infections, and little is known about the mechanisms that underlie this phenomenon. We believe there are changes in cell surface interactions between bacteria and the host epithelium altering the microenvironment in which they interact. We hypothesized that type I pili are unnecessary for establishing infection in the neurogenic bladder.

Methods: Six week old, female Sprague-Dawley rats underwent T10 spinal cord transection to produce a neurogenic bladder phenotype followed by a 14 day recovery period. Prophylactic antibiotics were administered during the recovery period and stopped 72 hours prior to infection. The spinal cord injury (SCI) and control animals were catheterized transurethraly and inoculated in a 1:1 ratio at 10^3 and 10^6 colony forming units (CFU) respectively with both a wild type strain of *E. coli* (UTI89) and an engineered strain that suppresses type I pilus expression. At 24 hours post infection the bladders and kidneys were recovered and tissue homogenates were plated on LB plus kanamycin to select for non-piliated bacteria or LB plus spectramycin to select for pilated bacteria to determine the differential CFUs of the pilated versus non-piliated bacteria.

Results: Bacteria without type I pili establish infection in the bladder of SCI animals, but not in the sham controls (3×10^4 vs. 0, $p < 0.001$). In the SCI bladders, there was no statistical difference in the 24 hour post infection bacterial colony counts from the tissue homogenates in the pilated versus non-piliated bacteria. Both bacterial strains infected the kidneys of SCI animals, but not controls (non-piliated 3×10^2 vs. 0, $p = 0.03$; pilated 8×10^2 vs. 0, $p < 0.001$).

Conclusions: Type I pili are necessary to establish bladder infection in the neurologically intact animals, but not in the neurogenic bladder phenotype. There is no difference in the ability of pilated versus non-piliated bacteria to infect the neurogenic bladder, suggesting that there are alternative bacterial mechanisms for adherence and invasion. Additionally, SCI animals are susceptible to upper tract infection with both pilated and non-piliated bacteria, whereas the sham controls are not. This is likely due to physiologic changes in the urothelium and reflux associated with elevated bladder pressures.

Source of Funding: Department of Surgery Duke University Medical Center and American Urologic Association Care Foundation.

PAPER #3

INFLAMMATORY RESPONSE TO *ESCHERICHIA COLI* URINARY TRACT INFECTION IN THE NEUROGENIC BLADDER OF THE SPINAL CORD INJURED HOST

Tara K Ortiz MD, Rajeev Chaudhry MD*, Zarine Balsara MD, PhD*, Ramiro Madden-Fuentes MD*, Yuping Tang*, Unwana Nseyo*, John S. Wiener MD*, Sherry S. Ross MD* and Patrick Seed MD, PhD*: Durham, NC
(Presentation to be made by Dr. Tara K. Ortiz)

Purpose: Urinary tract infections (UTI) cause significant chronic morbidity in patients with neurogenic bladder (NB). Our lab has established an *in vivo* model of experimental *Escherichia coli* UTI in the spinal cord injury (SCI) rat with NB phenotype. The SCI rat has enhanced susceptibility to UTI compared to controls. The etiology for this increased susceptibility is unclear. Using this model we previously demonstrated that SCI rats require a 3 log lower inoculum to establish an infection, and they have a baseline up regulation of pro-inflammatory markers and down regulation of antimicrobial peptides. Furthermore, there is an attenuated inflammatory response after infection with *E. coli*, compared to controls despite the lower inoculum. We hypothesize that using a 3 log higher inoculum in the SCI animals produces equivalent bacterial colonization, inflammatory cytokine expression and neutrophil recruitment at 24 hours post infection (hpi).

Methods: Rats underwent T10 spinal cord transection and were inoculated transurethraly with human cystitis strain *E. coli* UTI89 at 2 weeks post-surgery at an inoculum of 4×10^3 or 2×10^6 . In previous experiments control animals were infected at an inoculum of 2×10^6 , representing 1.5 times the ID₅₀ for the non-neurogenic bladder phenotype (4×10^3 inoculum represents 1.5 times the ID₅₀ for the NB). Inflammatory pathway gene transcript levels for *il6* were measured in bladder tissue from SCI animals at 24 hpi using quantitative PCR. Neutrophil recruitment was assessed using immunohistochemical (IHC) staining of the bladder epithelium with neutrophil elastase.

Results: Bacterial Colonization: The SCI bladders achieved statistically similar number of colony forming units (CFU) at 24 hpi when inoculated at 10^3 versus 10^6 . Inflammatory response: SCI bladders do not exhibit increased transcript levels of *il6* despite a 3 log higher inoculum (1.4 vs. 1.6 fold difference, $p = 0.67$). Neutrophil recruitment: IHC staining for neutrophils revealed no significant difference in the number of neutrophils per high power field (PMN/HPF) between SCI and control bladders at 24hpi (6.7 vs. 7.5, $p = 0.63$). Furthermore, there was no difference in the number of PMN/HPF between SCI bladders inoculated at 10^3 versus 10^6 (6.7 vs. 7.0, $p = 0.65$). Pre-infection, the SCI bladders had elevated numbers of PMN/HPF compared to the control bladders, but this difference was not significant (1.25 vs. 0.7, $p = 0.34$).

Conclusions: Despite a stronger infectious stimulus than necessary to establish and maintain an infection in the SCI bladder (3 log higher than the ID₅₀), there is no difference in the inflammatory response or the degree of bacterial colonization compared to a smaller stimulus. Additionally, the SCI bladders demonstrate slightly elevated neutrophil recruitment at baseline compared to controls, suggesting loss of neural-mediated innate immune suppression and may explain chronic persistent inflammation. During acute infection, the SCI bladders recruit fewer neutrophils than controls which perhaps correlates with increased susceptibility to UTI.

Source of Funding: Department of Surgery Duke University Medical Center and American Urologic Association Care Foundation

PROGNOSTIC POTENTIAL OF ERG PROTEIN LEVELS IN
PROSTATE CANCER

Philip Rosen^{1,2}, A. Marcell Szasz³, Attila Majoros⁴, Shiv Srivastava¹, Albert Dobi¹, Attila Szendroi⁴, Janina Kulka³ and Peter Nyirady⁴
¹Center for Prostate Disease Research, Department of Surgery, Uniformed Services University of the Health Sciences, Bethesda, MD 20852, USA; ²Urology Service, Walter Reed National Military Medical Center, Bethesda, MD 20815, USA; ³2nd Department of Pathology, Semmelweis University, 1091 Budapest, Hungary; ⁴Department of Urology, Semmelweis University, 1082 Budapest, Hungary.

Objective: Activation of the ERG protooncogene is the most frequent oncogenic event in prostate cancer. However, the prognostic association of ERG has not been defined. A recent reports have indicated that elevated ERG protein levels correlate with recurrence and prostate cancer-specific mortality. In the current study we evaluated ERG protein levels in tumor tissues comparing organ confined to clinically advanced disease.

Methods: Tissue microarrays were generated from formalin-fixed, paraffin-embedded prostatectomy specimens of 9 patients with organ confined prostatic adenocarcinoma, 10 patients with clinically advanced disease presented with PSA of over 100ng/mL, and as the control group, 11 patients with benign prostatic hyperplasia (BPH) from transurethral resection. Characterization of Claudin and Beta-catenin expression was previously reported and was used as controls. ERG expression was assessed by immunohistochemistry and was evaluated by combining staining intensity on a scale of 0–3 with frequencies on a scale of 0–100 resulting in an integrated score of 0–300 on each TMA cores. Correlation of ERG staining intensities with serum PSA levels, Gleason score and overall survival were examined.

Results: ERG staining intensities were significantly higher in tumors representing the clinically advanced group when compared to samples from organ confined disease. ERG staining was absent from prostate epithelial cells within the BPH group. As expected, vascular endothelia cell nuclei were positive for ERG. High ERG levels correlated with worse overall survival ($p = 0.0084$) and with high Gleason score ($p = 0.0051$). Serum PSA levels showed no correlation with ERG staining intensities.

Conclusion: Consistent with recent observations on the association of ERG oncoprotein levels with recurrence and prostate cancer-specific mortality, our proof-of-principle study further supports the potential utility of quantitative ERG evaluations in prognosing prostate cancer.

PAPER #5

HIGHER GRADE PROSTATE CANCER STRATIFICATION BY ERG ONCOPROTEIN AND SPINK1 EXPRESSION IN CAUCASIAN AMERICAN AND AFRICAN AMERICAN MEN

James Farrell, MD^{1,2}, Denise Young, BA¹, Yongmei Chen, MD¹, Michael Degen, MD^{1,2}, Jennifer Cullen, PhD¹, Gyorgy Petrovics, PhD¹, Inger Rosner, MD^{1,2}, David G. McLeod, MD^{1,2}, Isabell A. Sesterhenn, MD³ and Shiv Srivastava, PhD¹: ¹Rockville, MD, USA; ²Bethesda, MD, USA; ³Silver Spring, MD, USA
(Presentation to be made by Dr. Farrell)

Purpose: Observed differences in incidence and disease aggressiveness of prostate cancer (CaP) at presentation suggest different pathways of carcinogenesis between African American (AA) and Caucasian American (CA) men. *ERG* is the most common oncogene expressed in CaP. Prior studies suggested that *ERG* is more common in CaP of CA than in AA men. Recent studies also suggest that *SPINK1*, the gene that encodes tumor-associated trypsin inhibitor, is common in *ERG* negative cancers. As the difference in *ERG* frequency appeared to be most pronounced between AA and CA patients with higher grade tumors, we sought to describe the expression of *ERG* and *SPINK1* in the proteome of higher grade prostate cancer stratified by race.

Materials and Methods: The Center for Prostate Disease Research database was queried to identify patients with higher grade disease who underwent radical prostatectomy, and clinical data from 1304 patients were evaluated. Selected patients had a Gleason score of 8-10, or primary pattern 4 or 5 disease. A total of 63 AA men met study criteria and 63 CA men were matched against them. Immunohistochemistry was performed to detect *ERG* and *SPINK1* oncoprotein in representative whole mount prostate specimens.

Results: The frequency of *ERG* positive index tumors in higher grade disease was significantly greater among CA men compared to AA men (49% vs. 16%, $P < .0001$), whereas *SPINK1* was more common among AA men (65% vs. 49%, $P = 0.07$). In all cases *SPINK1* expression was focal. In 18 of 63 CA and 7 of 63 AA men *ERG* and *SPINK1* were co-expressed in the same tumor. *ERG* and *SPINK1* positivity were not predictive of biochemical recurrence, but *SPINK1* was identified in 2 of 7 patients with lymph node metastases.

Conclusions: Overall, *ERG* and *SPINK1* expression varied across ethnicity in this higher grade cohort, and *SPINK1* was present in a much greater proportion of patients than previously reported. Our study underscores, that molecular typing of CaP in the context of ethnicity may enhance our understanding of phenotypic variations and outcomes.

Source of Funding: National Cancer Institute grant to S.S., grant number: R01CA162383

NUCLEAR LOCALIZATION OF FATTY ACID SYNTHASE CORRELATES WITH GLEASON GRADE IN PROSTATE CANCER

Kevin J Rycyna MD, Allison A. Madigan PhD*, Anil Parwani MD*, Dean J. Bacich PhD*, Denise S. O'Keefe PhD*: Pittsburgh, PA
(Presentation to be made by Dr. Rycyna)

Purpose: Fatty acid synthase (FASN) acts as an oncogene in prostate carcinogenesis. FASN is thought to be a primarily cytoplasmic protein, however, we have recently observed expression of FASN in the nucleus of prostate cancer patient tissue. We investigated whether nuclear localization of FASN correlates with Gleason scores of prostate cancer.

Materials and Methods: Formalin-fixed paraffin-embedded prostate cancer tissue of various Gleason grades from 45 patients who had undergone radical prostatectomy was obtained from the University of Pittsburgh tissue bank. Immunohistochemical staining for FASN was performed on 41 specimens while four were exposed to the secondary antibody only, as negative controls. The groups consisted of six Gleason Score (GS) = 6, twenty-six GS = 7, and nine GS \geq 8 patients. Twenty-one high grade prostatic intraepithelial neoplasia (HGPIN) regions were found throughout the already utilized cancer specimens and were also analyzed. Within the most representative regions of cancer, the percentage of cells with strong nuclear staining was quantified using automated image analysis software. Benign glands were similarly analyzed in the donor prostate tissue. Pathology of all analyzed areas was confirmed through review with our institution's urologic pathologist. The scoring output by the image analysis software was converted into a composite nuclear (C_nuclear) staining score in order to allow appropriate comparison between specimens. A two-sample Wilcoxon rank-sum test was performed to detect a difference in the C_nuclear scores between different cancer grades.

Results: The median C_nuclear scores (95% CI) for GS = 6 and GS = 7 negative controls were 0 (0 to 0) and 1.6 (0 to 3.2), respectively. The median C_nuclear score (95% CI) for the benign glands, HGPIN regions, GS = 6, GS = 7, and GS \geq 8 were 0.43 (0.11 to 0.74), 3.63 (2.41 to 6.58), 3.39 (0.03 to 4.96), 22.73 (15.09 to 26.22), and 43.59 (4.02 to 60.13), respectively. A significant increase existed in nuclear FASN staining between GS = 6 and cancers that were GS \geq 7 ($p=0.0008$), between only GS=6 compared to GS = 7 cancers ($p=0.0005$), and between GS = 6 and GS \geq 8 cancers ($p=0.0251$). There was no difference between HGPIN and GS = 6 cancers ($p=0.255$). There were significant increases in FASN nuclear staining between HGPIN and GS = 7 ($p<0.0001$) and HGPIN and GS \geq 8 ($p=0.0062$). The increase between GS = 7 and GS 9-10 cancers was also significant ($p=0.004$).

Conclusions: To our knowledge, this is the first report demonstrating a correlation between nuclear FASN staining and Gleason grade. Nuclear-specific FASN, rather than previously reported cytoplasmic staining, suggests a potential novel role for FASN as a marker of clinical progression and warrants further investigation.

Source of Funding: DOD grant PC110816 and NIHR01CA138444

**PROPORTION OF MEN DIAGNOSED WITH PROSTATE CANCER IN
A POPULATION-BASED STUDY FOR WHOM ACTIVE
SURVEILLANCE IS AN APPROPRIATE MANAGEMENT STRATEGY**

CPT Stephen Overholser, MC, USA; Matthew Nielsen; Kathleen Torkko; Daniel Cwilka; Brandi Weaver; Xiaoyu Shi; Robin J. Leach; COL Javier Hernandez (RET), USA; COL Ian M. Thompson, Jr. (RET), USA; Ian M. Thompson III

Purpose: The purpose of this study was to determine the fraction of men in a population-based cohort diagnosed with prostate cancer who would qualify for active surveillance (AS). Of those who qualified for AS and underwent primary treatment, we determined the treatment modality and of those who underwent radical prostatectomy (RP) to evaluation pathologic upstage/downstage.

Materials and Methods: The San Antonio center for Biomarkers Of Risk of prostate cancer (SABOR) is a Clinical and Epidemiologic Center of the Early Detection Research Network (EDRN), supported by the National Cancer Institute. The IRB approved study prospectively enrolled 3,828 men, ages 35 and above with no history of prostate cancer, from a multiethnic population between 2001 and 2012 to examine behavioral, genetic, and other markers of risk for prostate cancer. Of these, 320 have been diagnosed with prostate cancer by prostate biopsy, 283 of whom had sufficient data for review. We reviewed these 283 men to assess what percentage of the subjects qualified for AS based on two separate sets of criteria: Criterion 1: PSA density $< 15\%$, ≤ 2 cores involved with cancer, Gleason score ≤ 6 , and cancer involving $\leq 50\%$ of biopsy volume; Criterion 2 ≤ 4 cores with Gleason 3+3 cancer and only one core of Gleason 3+4 cancer with only up to 15% of core involve with Gleason 3+4 disease. Patients who qualified for one or both of these criteria were considered candidates for active surveillance.

Results: Of the 283 patients, 189 (67%) qualified for AS under criteria #1 and/or criteria #2. Treatment data were available for 178 patients. Between 2001 and 2007, 11% of patients pursued AS compared to 35% of new prostate cancer diagnoses pursued AS after 2007. Seventy-four of the 178 patients qualifying for AS with available treatment data underwent RP; 19 (28%) were upstaged on final pathologic review (compared to 19% of those who did not qualify for AS).

Conclusions: In a population-based cohort, two-thirds of men diagnosed with prostate cancer qualify for active surveillance. A trend over time towards increasing selection of active surveillance was seen among men diagnosed with prostate cancer.

PAPER #8

PATHOLOGIC FINDINGS AT RADICAL PROSTATECTOMY OF PATIENT'S ELIGIBLE FOR ACTIVE SURVEILLANCE: STRATIFICATION BY SELECTION CRITERIA AND RACE

Kenneth J DeLay, Jr., MD, Robert W. Given, MD, Hind Beydoun, PhD, Michael B. Williams, MD,
LTC Raymond S. Lance, MD: Virginia Beach, VA
(Presentation to be made by Dr. DeLay)

Introduction: To compare prostate cancer specific outcomes between selection criteria and race for patients considering active surveillance (AS).

Materials & Methods: We queried our institutional radical prostatectomy (RP) database for pathologic data on prostatectomy specimens from 1991 to 2012. From this three groups were formed. Ultra low risk patients were defined as those with a Gleason 3+3 disease, no more than 30% tumor of involvement of one core, PSA <10, and cT2a or less on initial biopsy. Low risk was defined as Gleason 3+3 disease, 1-3 cores involved, no core with more than 50% tumor involvement, PSA <10, and cT2a or less. Intermediate risk was defined as those with Gleason 3+4 disease, one core involved, and no core with more than 30% involvement.

Results: We identified 545 men from 3097 who met active surveillance eligibility criteria. The average age in years and PSA were 59.1 and 5.1 respectively. There were 414 Caucasians and 156 African-Americans. 23 patients did not have their race identified in the database. On multivariate analysis including age, race, and gland size no differences were found among groups with respect to pathologic stage, Seminal Vesicle Invasion, or biochemical recurrence. The intermediate risk groups did carry an increased risk of harboring primary Gleason 4 or 5 on final pathology compared to the low risk and ultra-low groups with Odds Ratios of 5.32 (2.24-12.65) and 10.92 (3.54-33.69). The low risk group did not have an increased risk of primary Gleason 4 or 5 compared to the ultra-low risk group.

	Ultra Low Risk	Low Risk	Intermediate Risk	P value
Total Patients	194	302	49	
Extraprostatic Disease(T3)	8.2%(16)	10.2%(31)	12.2%(6)	0.75
Seminal Vesicle Invasion	0.4%(1)	1.6(5)	4.2%(2)	0.41
Positive Margins	18.6(40)	15.8%(50)	18.2%(11)	0.66
Biochemical Recurrence	14.2%(31)	14.4%(47)	18.3%(9)	0.47
Primary Gleason 4/5 on Final Pathology	2.2%(5)	4.6%(15)	20.4%(10)	0.0001

Conclusions: Patients with even low volume 3+4 disease adenocarcinoma of the prostate on initial biopsy are more likely to harbor Gleason 4 or 5 disease at final pathology compared to those with only low volume Gleason 3+3. However, in our cohort we did not see any other significant differences in other pathological findings nor and most importantly in biochemical disease free survival.

LESS MORBIDITY THAN OPEN RADICAL PROSTATECTOMY: AN ANALYSIS OF THE AMERICAN COLLEGE OF SURGEONS-NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM DATABASE WITH FOCUS ON SURGICAL TRAINEE INVOLVEMENT

Ronald J. Caras, D.O., Michael B. Lustik, M.S.*, Sean Q. Kern, M.D.,
Joseph Sterbis, M.D., Leah McMann, M.D.: Honolulu, HI
(Presentation to be made by Dr. Caras)

Introduction: Complication rates of Open Radical Prostatectomies (ORP) and Laparoscopic Radical Prostatectomies (LRP) performed by highly experienced surgeons in centers of excellence are well-known. Using a standardized, national, risk-adjusted surgical database, we compared 30-day outcomes following ORP and LRP and analyzed how trainee involvement influenced outcomes.

Methods: The American College of Surgeons National Surgical Quality Improvement Program (ACS-NSQIP) is a risk-adjusted data collection analyzing preoperative risk factors, demographics, and 30-day postoperative outcomes. From 2005-2011, we identified 10,669 total prostatectomies. Of these, 2,278 were ORP, and 8,391 were LRP. Data on trainee involvement was available on 63% of cases.

Results: Comparison of all 10,669 prostatectomies showed a decreased incidence of overall morbidity, serious morbidity, surgical site infections, mortality, wound disruption, urinary tract infection, bleeding, and sepsis or septic shock ($p < 0.05$) for LRP compared to ORP. Trainee involvement was associated with a higher incidence of bleeding, overall and serious morbidity ($p < 0.001$). This difference is isolated to post graduate year (PGY) 6-10 trainees performing ORP ($p < 0.001$). Overall and serious morbidity was equivalent between PGY groups 1-10 vs. attending alone performing LRP and PGY groups 1-5 vs. attending alone performing ORP. Operative times were shorter for ORP vs. LRP by an average of 38 minutes ($p < 0.05$), and in cases involving trainees, operative times decreased with trainee experience for both procedures. Length of stay was shorter for LRP compared to ORP (3.2 vs. 1.8 days, $p < 0.001$).

Conclusion(S): The large sample size, standardized data definitions, and quality control measures of the ACS-NSQIP database allow for in depth analysis of subtle but significant differences in outcomes between groups. Trainee involvement in LRP appears safe to patients. However, the increased morbidity in ORP involving trainees may be mitigated by awareness, simulation labs, and standardized competency assessment.

PAPER #10

ENERGY-BASED MINIMALLY INVASIVE PROSTATECTOMY: SMART-ENERGY NOT NO-ENERGY

Jonathan H. Berger, M.D., Brian K. Auge, M.D., Sean P. Stroup, M.D., Donald S. Crain, M.D., James O. L'Esperance, M.D.: San Diego, CA
(Presentation to be made by Dr. Jonathan H. Berger)

Purpose: Much has been published regarding nerve sparing techniques during radical prostatectomy. Investigators have often concluded that energy-based handling of the prostatic pedicle should not be done. These conclusions are based on anatomical studies and on data from early laparoscopic prostatectomy work, where techniques were not refined to the level of current practice. In addition, more contemporary devices are associated with less peripheral heat spread and improved vessel sealing strengths. The purpose of this study is to assess the results of laparoscopic and robotic prostatectomies performed using the EnSeal (Ethicon EndoSurgery, Cincinnati, OH).

Materials and Methods: From September, 2004 to September, 2009, a laparoscopic prostatectomy program was developed at our institution. The majority of these cases were performed in an extraperitoneal fashion with and anterior approach. From September 2009 to present, all minimally invasive prostatectomies were performed robotically, using the daVinci S system. After the first 15 pure laparoscopic prostatectomies, the EnSeal device was used on the majority of cases to control the prostatic pedicles and the distal nerve spare was performed in a thermal fashion. Operative parameters and long-term functional data were assessed.

Results: The majority of laparoscopic and robotic prostatectomies performed were completed without the need for surgical clips or staples. The transfusion rate was consistent with published transfusion rates in series where clips were routinely used. Functional results demonstrate that erectile function is reasonable with this thermal handling of the prostatic pedicles.

Conclusions: Though popular opinion amongst prostate surgeons seems to discourage the use of thermal devices near the prostatic pedicle during nerve sparing prostatectomy, it is more likely that excellent anatomic dissection is a more important factor. In addition, the ability to achieve hemostasis consistently is possible without the use of surgical clips, thus allowing for a simplified approach to pedicle management.

Source of Funding: None

**INCIDENCE AND TIMING OF GENITOURINARY SEQUELAE
FOLLOWING RADIATION THERAPY FOR PROSTATE CANCER**

Timothy S. Baumgartner*, M.D., James S. Ebertowski*, M.D., Edith D.
Canby-Hagino, M.D.: San Antonio, TX
(Presentation to be made by Dr. Baumgartner)

Purpose: The majority of men diagnosed with localized prostate cancer will pursue treatment, and one-third will receive some form of radiotherapy (RT). Given typically long survival after treatment and growing controversy regarding both individual and public health benefits of treating early-stage prostate cancer, it is important to identify late side effects of this therapy.

Materials and Methods: The San Antonio Military Medical Center Tumor Registry was queried between the years 2000 and 2006 to identify those individuals who underwent RT for prostate cancer. 344 patients were identified, of which 240 had continued follow up at SAMMC with records available for review. Charts were reviewed to identify genitourinary symptoms and events after RT.

Results: Follow up ranged from 3-196 months, with mean of 90 and median of 88 months. Gross hematuria occurred in 57 (24%) of patients, with mean and median onset at 53 and 48 months. Nearly all patients with hematuria had cystoscopy, and 20 (35%) had additional invasive procedures to treat bleeding. The incidence of hematuria was stable and did not diminish over time. Urethral and/or anastomotic strictures were less common, occurring in 24 (10%) patients. No patients receiving salvage radiotherapy developed strictures. Strictures occurred at similar rates with either primary external radiotherapy or brachytherapy (12% and 11% respectively). Adjuvant radiotherapy incurred the highest risk, with 5 of 13 (38%) developing strictures. The mean and median time to diagnosis with stricture was 55 months, but the risk for new stricture diagnosis persisted well beyond 5 years. Nine (4%) of patients acquired new diagnosis of bladder cancer. The mean interval to diagnosis was 68 months, ranging from 12-149 months. Two-thirds of these patients presented with gross hematuria. Unfortunately, incontinence and other urinary symptoms were not consistently documented and it was difficult to identify uniform measures of these symptoms for analysis.

Conclusions: Radiation therapy for prostate cancer has persistent long-term effects on surrounding normal tissues. It is important to address risk for long-term side effects when counseling patients about treatment options.

Source of Funding: None

PAPER #12

INCIDENCE OF GASTROENTEROLOGIC SEQUELAE AND NON-UROLOGIC CANCER FOLLOWING RADIATION THERAPY FOR PROSTATE CANCER

James S. Ebertowski, M.D., Timothy S. Baumgartner, M.D.,
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(Presentation by Dr. James Ebertowski)

Purpose: The majority of men diagnosed with localized prostate cancer will pursue treatment, and one-third will receive some form of radiotherapy (RT). Given typically long survival after treatment and growing controversy regarding both individual and public health benefits of treating early-stage prostate cancer, it is important to identify late side effects of this therapy.

Materials and Methods: The San Antonio Military Medical Center Tumor Registry was queried between the years 2000 and 2006 to identify those individuals who underwent RT for prostate cancer. 344 patients were identified, of which 240 had continued follow up at SAMMC with records available for review. Charts were reviewed to identify gastrointestinal symptoms and events after RT.

Results: Overall 25.4% of patient developed at least one gastrointestinal symptom following radiation therapy. Hematochezia was most common, occurring in 48 (20%) with a mean and median time to onset of 33 and 27 months. Forty (17%) underwent invasive procedures for evaluation and treatment of rectal bleeding. Sixteen (6.7%) reported new fecal incontinence, with mean time to onset of 25 months. Only one patient developed a colorectal malignancy. One patient developed a prostatico-rectal fistula that required fecal and urinary diversion. Unfortunately, other gastrointestinal symptoms such as diarrhea and pain were not documented in a manner that permitted analysis.

Conclusions: Radiation therapy for prostate cancer has persistent long-term effects on surrounding normal tissues, including the rectum and anal sphincter. It is important to address risk for long-term side effects when counseling patients about treatment options.

Source of Funding: None

**THE PREVALENCE OF PERSISTENT PROSTATE CANCER AFTER
RADIOTHERAPY DETECTED AT RADICAL CYSTOPROSTATECTOMY
FOR BLADDER CANCER**

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James A. Eastham, MD *, Jaspreet S. Sandhu, MD *: New York, NY
(Presentation to be made by CPT Sean Q. Kern, MC, USA)

Purpose: Over half of men that receive treatment for prostate cancer (PCa) will choose radiotherapy. After treatment, recurrence is determined by a rise in PSA and not usually by pathologic confirmation. We describe the pathologic outcomes of men treated with radiotherapy for PCa prior to cystoprostatectomy for subsequent diagnosed bladder cancer to determine the prevalence of persistent gradable Pca.

Materials and Methods: Seventy-eight patients underwent radiotherapy (brachytherapy, external-beam radiation or both) prior to development of bladder cancer requiring radical cystoprostatectomy between 1993 and 2012 at Memorial Sloan-Kettering Cancer Center, NY. All tissues were evaluated by a specialized GU pathologist.

Results: The median time from radiotherapy to radical cystectomy was 77 months. Gradable prostate cancer was identified in 45% of patients, with 65% of tumors Gleason score 7 or greater and 17% with \geq pT3 and 5% with positive lymph nodes. For those men undergoing EBRT, the median dose of radiation was 7020 cGY. One in three men had a history of ADT and 21% had a known BCR prior to RC. PSA values were available for 62 men prior to RC (80% of patients). The median PSA prior to RC was 0.95 (IQR 0.06-2.11) with 24% of patients having a PSA of 2 ng/ml or greater. Men treated more recently were less likely to have gradable PCa (24% vs. 67% vs. 100% for 1980 and earlier, 1980-2000, and 2000 to current, $p=0.001$) as well as men receiving combined brachytherapy and external beam radiation (EBRT) (19%) compared to EBRT alone (70%).

Conclusions: After radiotherapy, 45% of men had persistent PCa (48% of men who were NED) with a decrease in PCa rates associated with later years of treatment and the usage of combined brachytherapy/EBRT regimens. Similar to men undergoing cystoprostatectomy for muscle-invasive bladder cancer, the entire prostate should be removed during radical cystectomy in men treated with RT as many of these men may have persistent prostate cancer. In addition, markers other than PSA should be studied in men treated with RT to better identify men with BCR.

PAPER #14

EFFECT OF TREATMENT OF YOUTH VARICOCELE ON SEMEN ANALYSIS: A META-ANALYSIS

Justin J. Nork, DO, Donald S. Crain, MD, Matthew S. Christman, MD: San Diego, CA

(Presentation to be made by Dr. Nork)

Purpose: Current indications for adolescent varicocele treatment include testicular hypotrophy, pain or abnormal semen analysis. There are relatively few studies demonstrating the effect of youth varicocele treatment on sperm parameters and those which have been completed have relatively small sample size. We hypothesized that treatment of youth varicocele would be associated with improved semen analysis parameters.

Methods: A search of PubMed, Medline and the Cochrane Library was completed covering 1 JAN 1971 through 4 OCT 2013 including the terms: varicocele, youth, adolescent. English language studies were screened for those assessing semen analysis and including youths with clinical varicocele undergoing treatment and a control group. Studies were excluded if they did not contain a semen parameter of interest (semen density or sperm motility) or if the presented data was not amenable to meta-analysis (i.e., presented only graphically or as medians/ranges). In cases of duplicated cohorts, only one study was selected. The included studies were independently reviewed, analyzed for bias and included in a meta-analysis. A random effects model was used to calculate weighted mean difference (WMD) of semen density, semen volume, sperm morphology and sperm motility. Heterogeneity was calculated. Bias was assessed with funnel plots and with Egger's test for small study effects.

Results: Initial literature search discovered 1180 potentially relevant articles. Fourteen articles met the initial screening criteria. Ten studies with 379 treated and 270 control subjects were included. Both semen density and sperm motility were moderately improved following treatment of varicocele, with a weighted mean difference (95% [CI]; p-value, I^2) of $14.61 \times 10^6/\text{mL}$ ([7.08, 22.14]; $p < 0.0001$; $I^2 = 58.2\%$) and 6.62% ([2.10, 11.15]; $p = 0.004$; $I^2 = 75.3\%$) respectively. There was no demonstrated improvement in semen volume ($p = 0.250$) or sperm morphology ($p = 0.206$). No significant bias was detected for density ($p = 0.643$); however, motility results suggested some small-study effects ($p = 0.006$).

Conclusion: Summary of the current published data suggests that treatment of youth varicocele is associated with a moderate improvement of both semen density and sperm motility while semen volume and sperm morphology are unaffected.

Source of Funding: None

PAPER #15
**OPERATING CHARACTERISTICS OF FOLLICLE STIMULATING
HORMONE IN AZOOSPERMIC MEN**

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Running Head: FSH in Azoospermic Men

Keywords: follicle stimulating hormone, infertility, azoospermia

Abbreviations: testicular long axis (TLA), follicle stimulating hormone (FSH), leutinizing hormone (LH), obstructive azoospermia (OA), non-obstructive azoospermia (NOA), receiver operating characteristics (ROC), positive predictive value (PPV), negative predictive value (NPV), positive likelihood ratio (LR+), negative likelihood ratio (LR-), missing values (MVs)

Purpose: We aimed to validate factors predictive of non-obstructive azoospermia (NOA), determine the operating characteristics of FSH for predicting NOA and determine an optimal cut-point of FSH identifying subjects with NOA.

Materials and Methods: We retrospectively reviewed the records of 140 patients who underwent evaluation for azoospermia from 2004 to 2012 at a tertiary care military treatment facility. Standard evaluation of azoospermic men included a history and physical, hormonal work-up, and genetic evaluation. Diagnostic testicular biopsy was offered to all patients evaluated and obstructive azoospermia (OA) and NOA were defined based on the results. Logistic regression was used to analyze potential predictors of biopsy-proven NOA: semen volume, semen fructose, FSH, testosterone, estradiol, prolactin, and testicular atrophy. Receiver operating characteristics (ROC) curves were then generated for the factors that predicted NOA on multivariate analysis. Sensitivity, specificity, positive and negative predictive values and positive and negative likelihood ratios (LR+, LR-) were calculated.

Results: 78 of 140 azoospermic patients underwent biopsy. The ability to predict NOA based on logistic regression was significant for FSH ($p < 0.001$) and testicular atrophy ($p = 0.005$). Testosterone, estradiol, prolactin, semen volume and semen fructose were not significant predictors of NOA. On multivariate analysis, only FSH remained predictive of NOA. The area under the ROC curve was 0.847, which is significant. The cut point of FSH with the highest LR of predicting NOA on biopsy was > 12.3 mIU/mL.

Conclusions: Azoospermic men with FSH above 12.3 mIU/mL have a strong likelihood of having NOA and may forego a diagnostic biopsy and its potential morbidity.

FACTORS CONTRIBUTING TO POST-SURGICAL FOLLOW UP AMONG MEN UNDERGOING VASECTOMY REVERSAL

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Purpose: Vasectomy remains a common method of contraception in the United States, with prevalence estimates of 6.6% among 18-to-45 year olds in the National Survey for Family Growth. A small portion of these patients ultimately desire return of fertility and opt for vasectomy reversal (VR). Many factors predict successful return of fertility after VR, including obstructive interval, type of repair, and vasal length, among others. Even among men highly desirous for return of fertility, post-operative follow-up evaluation/counseling and semen analysis is hardly standardized. One suggested reason for this is the additional cost to the patient for follow up evaluation. We examine the characteristics of patients undergoing VR in order to evaluate preoperative or clinical factors that may predict follow-up evaluation in a military hospital system where cost of follow-up is obviated.

Materials and Methods: One hundred consecutive patients with a history of previous vasectomy who underwent microsurgical VR for purposes of resumption of fertility over a two-year period at a single institution by a single surgeon were evaluated. Demographic information, medical/surgical history, reproductive history, type of procedure performed, intra-operative qualitative semen analysis, post-operative semen analyses, as well as number of successful pregnancies were assessed.

Results: The average age of men undergoing VR was 37 ± 4.7 years and the average interval between vasectomy and reversal was 8 years. Length of follow-up ranged from 2 months to 25 months with an average of 12 months. Thirty-six patients did not follow up with semen analysis (36%). There was no statistically significant difference in age or obstructive interval among men who followed up with semen analysis versus those who did not (37.25 years vs 36.5 years; 8.25 years vs 7.6 years), though those who did follow up with semen analysis tended to be older and with longer occlusion time. Fifteen patients (15%) had previous scrotal/inguinal surgery, including 9 who had previous vasovasostomy (VV). All of these patients followed up with semen analysis. Among patients who failed to follow-up with semen analysis, 11 (30.6%) had bilateral epididymovasostomy (EV), 16 (44.4%) had bilateral VV, and 9 (25.0%) had EV on one side and VV on the other. Among those who provided postoperative semen analysis, 13 (20.6%) had bilateral EV, 31 (49.2%) had bilateral VV, and 19 (30.2%) had EV on one side and VV on the other.

Conclusion: Surgical vasectomy reversal is a technically challenging but effective means for return-to-fertility after previous vasectomy. Despite insulation from cost of post-operative semen analysis, 36% of patients undergoing VR in our institution failed to follow up with recommended semen analysis. Those who underwent prior attempts at VR universally provided samples. Age and duration of surgical occlusion did not impact likelihood of post-surgical follow-up. Patients undergoing bilateral EV were less likely to provide samples for post-operative semen analysis.

Source of Funding: None

RESIDENTS COMPETITION - II

ABSTRACTS

BALLOON DILATION OF THE URETER: A CONTEMPORARY REVIEW OF OUTCOMES AND COMPLICATIONS

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(Presentation to be made by Dr. Kuntz)

Introduction and Objective: Ureteroscopy is a well-established treatment for symptomatic ureteral and renal stones. Ureteral balloon dilation may be necessary to allow passage of endoscopic instruments or access sheaths. Herein, we assessed the outcomes and complications associated with ureteral balloon dilation during ureteroscopy procedures.

Methods: A retrospective chart review (2000-2012) was performed on patients who received balloon dilation of the ureter prior to endoscopic treatment of upper tract stones. An 18 Fr Uromax™ balloon dilator was used in all cases. Patients with prior ureteral strictures, radiation therapy or urothelial cancer were excluded. The primary outcomes assessed were: stone-free rates, operative complications, and balloon failure and stricture rates. Stone-free was defined as no residual stones at follow-up imaging. Complications were divided by intraoperative (Satava classification) and post-operative (Clavien-Dindo classification). Balloon failure was defined as inability to access the stone despite balloon dilation and required a second procedure. Ureteral stricture diagnosis required new onset of hydronephrosis on follow-up imaging without evidence of obstructing stone and a confirmatory functional study or endoscopic finding.

Results: There were 151 patients that fulfilled study criteria. Demographics are included in table 1. The average follow-up was 12 months. The stone free rate was 72%, with a median time to first post-operative imaging of 2.8 months. There were 8 (5%) intra-operative ureteral perforations. Of these, 7 were managed with a ureteral stent, 1 with a PCN tube, and 4 patients required endoscopic re-treatment (Satava 2b). The post-operative complication rate was 7% (n=11) and included the Satava 2b patients. There were only 6 (4%) failed balloon dilations. A single ureteral stricture attributed to balloon dilation was identified and this was seen in a poorly functioning pelvic kidney.

Conclusions: In this contemporary review, balloon dilation of the ureter prior to endoscopic treatment of stone disease was associated with a high success rate and few complications. The use of ureteral balloon dilation may reduce the need for secondary procedures for patients undergoing ureteroscopy for the treatment of proximal ureteral and intra-renal stones.

Source of Funding: None

FLUOROSCOPY TIME DURING UNCOMPLICATED UNILATERAL URETEROSCOPY FOR UROLITHIASIS DECREASES WITH UROLOGY RESIDENT EXPERIENCE

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Presentation to be made by Dr. Nwoye.

Purpose: To determine predictors of fluoroscopy time during uncomplicated, unilateral ureteroscopy for urolithiasis performed by urology residents during the first 2 years of residency.

Materials and Methods: The patient charts, CT scans, operative reports, and operative nursing records of consecutive, unilateral, uncomplicated ureteroscopy cases for urolithiasis were retrospectively reviewed. The cases were performed by 2 beginning urology residents over the course of their first 2 years of urology residency training. Patient demographics, stone parameters, operative characteristics, and outcomes were recorded.

Results: A total of 200 ureteroscopy cases were reviewed. No significant differences existed between cases performed by each resident. The mean patient age was 47.8 (\pm 16.8) years. The mean stone diameter was 7.1 (\pm 3.2) mm. Forty-three percent of cases were performed for renal stones and 58% for ureteral stones. The mean operative time was 80.2 (\pm 36.9) minutes. The mean fluoroscopy time was 69.1 (\pm 38.2) seconds. Backward elimination linear regression analysis ($R^2 = 0.6538$) revealed the strongest correlation with decreasing fluoroscopy time to be increasing resident experience ($p < 0.001$). By the end of the 2 year study period after an average of 100 ureteroscopy cases, fluoroscopy time during ureteroscopy decreased by 79% to 29.0 seconds per case. Other significant factors associated with increasing fluoroscopy time were placement of a postoperative stent under fluoroscopic guidance ($p < 0.001$), utilization of a flexible ureteroscope as opposed to a semirigid ureteroscope ($p < 0.001$), and balloon dilation of the ureteral orifice ($p < 0.001$).

Conclusions: Fluoroscopy time during uncomplicated, unilateral ureteroscopy for urolithiasis decreases with increasing urology resident operative experience. Other technical options during ureteroscopy were also found to influence fluoroscopy time.

TRAINING REDUCES FLUOROSCOPY TIME DURING UNILATERAL
URETEROSCOPY BY UROLOGY RESIDENTS

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(Presentation to be made by Dr. Stringer)

Purpose: To determine the impact of Safety and Minimization of Radiation Training (SMaRT) on fluoroscopy time during unilateral, uncomplicated ureteroscopy for urolithiasis performed by first year urology residents.

Materials and Methods: After the first 6 months of residency, first-year urology residents underwent SMaRT consisting of radiation safety training with specific recommendations for minimizing fluoroscopy time during ureteroscopy. Also, fluoroscopy times after SMaRT were monitored by the resident surgeons. All consecutive ureteroscopy cases for urolithiasis meeting inclusion criteria were reviewed. Variables potentially associated with fluoroscopy time were evaluated. Fluoroscopy times before and after training were compared in addition to comparisons with cases performed by the previous first-year residents who only received radiation safety training without emphasis on minimizing or monitoring fluoroscopy.

Results: A total of 202 ureteroscopy cases were reviewed. The mean patient age was 48.7 years. The mean stone diameter was 7.6 ± 3.3 mm. The mean operating time was 79.8 ± 34.3 minutes. The mean fluoroscopy time was 85.6 ± 36.9 seconds. A Spearman rank correlation identified 8 variables significantly correlated with fluoroscopy time: SMaRT training, resident experience, operating time, balloon dilation, retrograde pyelography, ureteral access sheath utilization, type of ureteroscope, and method of postoperative stent placement. The most significant correlation was between fluoroscopy time and SMaRT training ($\rho = 0.532$, $p < 0.001$). Linear regression analysis with backward elimination ($r = 0.701$) of these variables revealed that fluoroscopy time significantly decreased with SMaRT training ($p < 0.001$), resident experience ($p < 0.001$), no balloon dilation ($p < 0.001$), use of a semirigid ureteroscope ($p < 0.001$), and place of a postoperative stent via cystoscopic visualization ($p = 0.034$). On post hoc ANOVA adjusted for the Spearman covariates, the mean fluoroscopy time of the cases performed after SMaRT was 62.7 seconds which was significantly lower than the mean fluoroscopy time of cases performed by the same residents before SMaRT (91.2 seconds, $p = 0.005$) and lower than the cases performed during the same time interval by the previous first-year residents without SMaRT training (92.2 seconds, $p < 0.001$).

Conclusions: SMaRT with subsequent monitoring reduces fluoroscopy times during unilateral, uncomplicated ureteroscopy for urolithiasis performed by urology residents.

**HYPERLIPIDEMIA IS ASSOCIATED WITH AN INCREASED RISK OF
NEPHROLITHIASIS**

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(Presentation to be made by Dr. Marshall)

Introduction: The pathophysiology of nephrolithiasis is multifactorial and obesity, diabetes mellitus (DM) and hypertension (HTN) have been implicated in its formation. Hyperlipidemia (HLD) has recently also received attention as a cause. Congruent with a vascular etiology in stone formation, hyperlipidemia theoretically would be associated with an increased risk. We investigated a possible association of HLD with nephrolithiasis

Methods: A random cohort of 60,000 patients was established by collecting the first 5000 patient charts per month in the year 2000. After excluding all pediatric patients, a retrospective study was performed by reviewing age, sex, comorbidities, and last follow up. Median lipid laboratory levels for each patient available were also reviewed. Descriptive statistics were performed as well as Cox proportional-hazards analysis, both univariate and multivariate, to identify factors associated with nephrolithiasis.

Results: 52,184 (22,717 women/29,467 men) patient charts were reviewed. The average age was 31.0 +/- 15.2 years. On univariate analysis a diagnosis of HLD had a hazard ratio (HR) of 2.2 [1.9-2.5, 95% Confidence Interval (CI), $p < 0.001$] associated with nephrolithiasis. On multivariate analysis it was $HR = 1.2$ [1.0-1.5, 95% CI, $p = 0.033$]. Low-density lipoprotein (LDL) and triglycerides had no association with stone disease, but high-density lipoprotein (HDL) with values below 45 for men and 60 for women had a HR of 1.4 [1.1-1.7, 95% CI, $p = 0.003$] for stone formation. On multivariate analysis it was a $HR = 1.27$ [1.03-1.56, 95% CI, $p = 0.024$].

Conclusion: HLD is associated with nephrolithiasis. Low levels of HDL appear to increase the risk of stone formation, but the same effect was not seen with LDL or triglyceride levels.

Source of Funding: None

RECURRENCE FREE SURVIVAL FOLLOWING THE FIRST EPISODE
OF UPPER-TRACT CALCULI IN A PEDIATRIC COHORT

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Purpose: Few data are available regarding stone recurrence free survival in a pediatric cohort. We aimed to determine the recurrence free survival following the first episode of upper tract calculi. We hypothesized that a model of demographic and stone factors could be developed to predict recurrence in subjects treated at a children's hospital.

Methods: A database of 902 patients with ICD-9 codes consistent with urolithiasis from 2004–2012 was reviewed. Subjects with a confirmed diagnosis of upper tract urolithiasis and whose entire stone history had been abstracted were eligible. Patients were excluded if clearance of their first stone episode was not confirmed by CT scan or renal/bladder ultrasound. Information pertaining to demographics and individual stone episodes was analyzed. Patients were censored at their last follow-up visit to our institution. Kaplan-Meier survival estimates were generated. Potential predictors of recurrence analyzed via a Cox proportional hazards model included: age at initial presentation, gender, race, BMI, family history of stones, history of neurogenic bladder and/or bladder augmentation, and stone composition. Factors that trended towards significance ($\alpha < 0.10$) on univariate analysis were used to construct a multivariate model of recurrence.

Results: Radiologic clearance of the first episode was verified in 218 subjects, of whom 22% (48/218) presented with a recurrent stone. Median [IQR] age was 11.9 years [6.9, 15.5]. The cohort underwent 288.4 person-years of observation. Median upper tract stone recurrence free survival was 4.4 (3.0, 5.7) years and 14.9% recurred by the end of the first year. Age at the initial presentation, gender, history of bladder augmentation, and a history of calcium oxalate stone/s predicted recurrence on univariate analysis; the remaining variables were not statistically significant predictors. On multivariate analysis, no factor was a significant predictor of recurrence.

Conclusion: Over half of pediatric patients with upper tract urolithiasis may recur within 5 years. Patients with a neurogenic bladder do not appear to be at increased risk of upper tract stone recurrences. Furthermore, stone composition cannot be used to predict recurrence. We suspect that metabolic factors play the larger role in determining recurrence free survival.

SHOULD PRENATAL HYDRONEPHROSIS THAT RESOLVES BEFORE BIRTH BE FOLLOWED POSTNATALLY? AN ANALYSIS AND COMPARISON TO PERSISTENT PRENATAL HYDRONEPHROSIS

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(Presentation to be made by Dr. Scarborough)

Purpose: The advent of prenatal ultrasonography greatly enhanced detection of congenital genitourinary abnormalities. While children with persistent prenatal hydronephrosis are typically imaged and followed postnatally, it remains unclear if hydronephrosis that resolves prior to birth should be managed in a similar fashion. We sought to determine postnatal abnormalities associated with prenatal hydronephrosis that resolved prior to birth (RPH) and compared this group to those with prenatal hydronephrosis that persisted throughout pregnancy (PPH).

Materials and Methods: We performed a retrospective review of all consecutive patients evaluated for prenatal hydronephrosis over 24 months. Patients were followed prenatally with serial ultrasounds and with ultrasonography and a voiding cystourethrogram (VCUG) after birth.

Results: A total of 126 patients were evaluated. Of these, 54 children were found to have hydronephrosis that resolved prior to birth. The average anterior-posterior (AP) renal pelvis length at the original prenatal ultrasound was significantly longer ($p=0.01$) in children with PPH (5.4 mm) versus those with RPH (4.9 mm) ($p=0.01$). 46% of children with RPH were actually found to have recurrent hydronephrosis on postnatal ultrasound. Six percent of children with PPH and 9% of children with RPH were found to have vesicoureteral reflux. With a mean follow up of 128 days (10-601 days), 32% of PPH resolved after birth, while 40% of the postnatal hydronephrosis identified within the RPH cohort resolved after birth. The mean time to resolution within the PPH (99 days) group was statistically quicker ($p=0.03$), compared to the RPH group (179 days). Five PPH patients were found to have abnormalities requiring surgical intervention, while no RPH patients needed surgery.

Conclusions: A significant number of children with RPH had recurrent hydronephrosis on postnatal studies. Despite a slower resolution time, no children within the RPH cohort were found to have abnormalities requiring intervention. In addition, prenatal hydronephrosis is a poor indicator of postnatal vesicoureteral reflux, whether the hydronephrosis resolved or persisted prenatally. Although RPH may recur after birth, the low chance of its required intervention suggests that these children may not require postnatal imaging.

Source of Funding: None

PAPER #23
POST-PROSTATECTOMY MALE SLING REVISION AND EARLY RESULTS

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(Presentation to be made by Dr. Griffin)

Purpose: Male slings have been an accepted form of therapy in the incontinent male. This therapy has been used to treat post-prostatectomy incontinence with a reported 55-80% success rate. What is also known is that one fourth of patients, despite being counseled on a recommendation for an artificial urinary sphincter due to the severity of their incontinence, will choose the male sling as an initial form of therapy. Currently, failed slings typically may be treated with an artificial urinary sphincter. We describe a technique of revising an existing sling through an imbricating procedure and provide initial clinical results.

Materials and Methods: A retrospective review was conducted of all patients from June 2010 to March 2013 who underwent a sling revision by a single surgeon. Ages, operative details, pad counts, and follow up information were collected and statistically analyzed for significance.

Results: Sixteen patients were identified. The median patient age was 70 with a median time of 10.9 months between sling placement and sling revision. The median daily pad count decreased from 4 to 1.3 with a p-value of 0.002. There were no intraoperative complications and all patients were discharged home the same day without a urinary catheter. Seven patients became continent and three patients later underwent an uncomplicated artificial urinary sphincter.

Conclusion: Native sling revision is a viable option for patients with a failed sling. It is a technically facile procedure that permits the patient to return home the same day with dramatically improved continence immediately.

Source of Funding: None

PAPER #24

EVALUATION OF SALVAGE MALE TRANSOBTURATOR SLING PLACEMENT FOLLOWING RECURRENT STRESS URINARY INCONTINENCE AFTER FAILED TRANSOBTURATOR SLING

LT Jack M. Zuckerman, M.D., Edward J. Martinez, B.S., Brooke Edwards, M.D., Katherine Henderson, B.S., Kurt McCammon, M.D.: Norfolk, VA

Objectives: To evaluate the outcome of patients treated with a salvage AdVance male sling after a failed primary transobturator sling placement.

Methods: Retrospective review of patients treated at our center with a primary and subsequent salvage AdVance sling. Success was defined as a dry safety pad or no pads (cured), or greater than 50% improvement in pads used per day and patient satisfaction (improved). Early primary sling failures (<6 months) were compared with late (≥ 6 months) failures with regards to continence outcomes.

Results: We identified 18 patients who underwent a salvage AdVance sling at our institution. Overall success was 72% at 6 months post-op and 56% at a mean follow up of 17.5 months, including 50% and 39% of patients who were dry at those same time periods. Patients failing early following their primary sling ($n=10$) enjoyed improved outcomes with salvage sling placement compared to patients who failed late ($n=8$) following the primary sling. At six months more patients in the late primary failure group were cured (75% vs 30%, $p=0.031$). These improved cure rates remained significant through final follow up with cure rates of 63% and 20%, respectively ($p=0.041$).

Conclusions: Salvage AdVance male sling is a viable treatment option after a failed primary sling procedure, especially in patients who demonstrated a prolonged efficacy period prior to primary sling failure.

**PERINEAL MINIMALLY INVASIVE TECHNIQUE FOR CYLINDER
LENGTH ADJUSTMENT**

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Introduction and Objectives: Inaccurate cylinder size measurement may not always be noticed intraoperatively when inserting an inflatable penile prosthesis (IPP) resulting in under or oversizing. A novel technique to facilitate reliable and safe cylinder length adjustment with minimal morbidity is described along with patient outcomes.

Methods: All seven patients in the study underwent prior IPP placement. For perineal repair, all patients were positioned in dorsal lithotomy and prepped and draped using the prior described "no touch" technique. A midline incision into the perineum was made through which the right and left corpora cavernosa (CC) were exposed. A vertical incision was made into each CC until the rear tip of each cylinder was visualized. After placing stay sutures on either side of the corporotomy, the proximal tip of the cylinder was brought into the operative field. The appropriately sized rear tip extender (RTE) was added or removed. The cylinder was then repositioned into the CC and the corporotomies closed.

Results: From 2010 to 2013 there were no intraoperative complications with regards to the cylinders, pump, tubing, or reservoir. Mean length of follow-up was 24 months. Six (86%) patients had a mean cylinder length enhancement of 2.5cm. One (14%) patient had 1cm RTE's removed due to initial oversizing. There were zero infections, zero cylinder erosions and zero device malfunctions. All seven patients reported 100% satisfaction rates with regards to cylinder length adjustment.

Conclusions: This is a novel procedure designed to adjust, up or down, IPP cylinder length with minimal dissection. This approach results in little to no post-operative pain and swelling and in addition leaves the scrotal pump and reservoir undisturbed. By decreasing exposure of the implant and tubing to skin flora, this procedure decreases the risk of IPP infections.

PAPER #26

THE RELATIONSHIP OF LOWER URINARY TRACT SYMPTOMS AND RECURRENCE AFTER ANTERIOR URETHROPLASTY THE RELATIONSHIP OF LOWER URINARY TRACT SYMPTOMS AND RECURRENCE AFTER ANTERIOR URETHROPLASTY

Abhay Singh, Michael Granieri, Danielle Stackhouse, George Webster, Matthew Fraser, COL Andrew Peterson: Durham, NC

Purpose: Prior studies have described the spectrum of lower urinary tract symptoms (LUTS) in men with urethral stricture disease upon initial presentation. However, there is little data addressing the spectrum of LUTS in the follow-up of patients who have undergone urethroplasty for anterior urethral (pendulous and bulbar) strictures. This study examines the spectrum of LUTS in men after anterior urethroplasty and the relationship of these symptoms to stricture recurrence.

Materials and Methods: We performed an IRB approved retrospective review of the Duke urethroplasty database. We recorded patient demographics, location and type of stricture, surgical repair type, and a detailed analysis of information from post-operative follow up visits with emphasis on patient reported LUTS. Urethral stricture recurrence was confirmed by cystoscopy or retrograde urethrogram in all patients. Fisher's exact test was used to compare LUTS with respect to recurrence and location.

Results: We identified 561 men who underwent anterior urethroplasty by two surgeons (GDW, ACP) from January 1996 to September 2011. 488 (87%) men had follow up data available to determine recurrence. Of these 488 men, 444 (91%) had a successful outcome from urethroplasty with no recurrence with a median follow up time of 9 months. Of the 444 men without recurrence, only 30 had LUTS (21, 4.7% urinary dribbling and 9, 2% spraying of urinary stream). 44 men (9.01%) developed recurrence at a median time of 17 months. The most frequent LUTS complaints among these men included weak stream (37, 84%) and dribbling (5, 11.4%). Two patients (5%) with recurrence presented with urinary retention after having developed weak stream. The symptom most significantly associated with recurrence was weak stream ($p < 0.001$). There were no major differences when stratified by location (Table 1).

Conclusions: Our findings indicate that men with a successful outcome after urethroplasty tend to remain asymptomatic whereas those who recur are most likely to present with a complaint of weak stream. Further studies are needed to determine if recognition of weak stream can be used as an adjunctive cost-effective way to monitor for urethral stricture recurrence. Weak stream can be used as an adjunctive cost-effective way to monitor for urethral stricture recurrence.

EFFECTS OF VALPROIC ACID AND DEXAMETHASONE IN ACUTE
KIDNEY ISCHEMIA-REPERFUSION INJURY MODEL

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(Presentation to be made by CPT Ryan W. Speir, MD)

Introduction: Renal ischemia-reperfusion (IR) causes acute kidney injury (AKI) with high mortality and morbidity. The objective of this study was to ameliorate kidney IR injury and identify novel biomarkers for AKI.

Methods: Left renal ischemia was induced in Wister rats by clamping the renal artery for 45 minutes, followed by reperfusion and right nephrectomy. Thirty minutes prior to ischemia, rats (n=8/group) received Valproic Acid (150 mg/kg; VPA), Dexamethasone (3 mg/kg; Dex) or Vehicle (Saline) IP. Animals were sacrificed at 3h, 24h or 120h IR and blood, urine and kidney were collected.

Results: At 3h IR, urine albumin was lower ($P>0.05$) in VPA (0.84 ± 0.62) and Dex (1.04 ± 0.73) compared to Vehicle (1.47 ± 1.02 mg/ml) group; and Lipocalin-2 was lower ($P<0.006$) in Dex (0.42 ± 0.15) and higher ($P<0.01$) in VPA (1.21 ± 0.32) compared to Vehicle (0.77 ± 0.31 μ g/ml) group. Osteopontin was higher ($P<0.05$) at 24h IR in VPA and Dex. TIM-1 did not differ. Serum creatinine (mg/dL) at 24 h IR in VPA (2.7 ± 1.8) and Dex (2.3 ± 1.2) was reduced ($P<0.05$) compared to Vehicle (3.8 ± 0.5). Histopathology at 3h IR demonstrated reduced ($P<0.04$) ischemic changes in the renal cortex in VPA (27 ± 32 %) compared to Vehicle ($56\pm27\%$) group. Tubular necrosis in the outer medulla was lower ($P<0.02$) in Dex and VPA (43-45%) compared to Vehicle (70%) at 24h IR. BCL-2 as determined by RT-PCR did not differ.

Conclusion: The VPA administration prior to surgery appears to offer renal protection from IR injury.

PAPER #28
FOLLOW-UP OF CARCINOMA IN SITU INVOLVING THE DISTAL
URETER AT CYSTECTOMY: EVALUATION OF LONG-TERM
ONCOLOGICAL OUTCOME

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Concomitant ureteral CIS at the time of cystectomy has an incidence of 2-8.5%. Management of this finding is controversial due to the unclear natural history of these patients. From 1999 to 2013, 11 patients were identified who underwent cystectomy for bladder cancer who had positive carcinoma-in-situ involving the distal ureteral at the time of the procedure. The mean follow-up was 107 months. Only one patient is free of recurrence. Three patients are alive with disease. Nine patients developed recurrence in the upper tract. Four of those patients progressed into complete panurothelial transitional cell carcinoma involving both upper tracts. All recurrences were high grade. One patient with CIS of the right ureter at cystectomy developed recurrence on the L ureter. Four patients developed recurrence in the renal pelvis and one in the mid ureter. A total of seven patients died from disease progression. Metastatic sites include the small bowel, liver, lung, spinal chord and brain. The presence of carcinoma-in-situ at the distal ureter margin confers a dismal prognosis with unpredictable pattern of recurrence. Some patients with high stage disease or multifocality may benefit from prophylactic upper tract topical therapy or early removal of all urothelium at risk.

**SUCCESSFUL SURGICAL TREATMENT OF WEEPING KIDNEY
SYNDROME FOLLOWING LIVING DONOR RENAL
ALLOTRANSPLANTATION**

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Abstract: Weeping Kidney Syndrome (WKS) is a rare phenomenon characterized by abdominal pain, renal dysfunction, and spontaneous decapsulation of the kidney. The etiology of WKS is unknown and optimal therapeutic treatment is unclear. In this paper we report a novel surgical technique that led to resolution of WKS in a 35-year-old recipient of a living donor renal transplant. She was initially misdiagnosed and treated for a presumed symptomatic transplant lymphocele. After failing external drainage, she underwent internal drainage by laparoscopic fenestration. The resulting intractable ascites led to open exploration and the correct diagnosis of WKS. Two courses of open sclerotherapy with topical silver nitrate eliminated excess fluid production and resolved her symptoms. Two years after diagnosis and successful treatment, she has a serum creatinine of 1.1 mg/dl and a normal renal ultrasound.

Key words: weeping kidney syndrome, decapsulation, sclerotherapy
Abbreviations: creatinine (Cr), Weeping Kidney Syndrome (WKS)

Disclosures: No funding was received. The authors of this manuscript have no conflicts of interest to disclose.

The views expressed in this article are those of the authors and do not reflect the official policy or position of the Department of the Navy, Department of Defense, or the United States Government.

**IMPACT OF SMOKING STATUS AT DIAGNOSIS ON DISEASE
RECURRENCE AND DEATH IN CLEAR CELL RENAL CELL CARCINOMA**

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Purpose: Modifiable risk factors have increasingly been associated with kidney cancer survival. Despite recent reports describing an association with smoking exposure and kidney cancer stage at diagnosis, the impact of smoking on cancer-specific outcomes is understudied. We evaluated the impact of smoking exposure on oncological outcomes in patients with clear cell renal cell carcinoma (ccRCC) treated with surgery.

Materials and Methods: Patient and disease characteristics from 1,625 patients with non-metastatic ccRCC treated with partial or radical nephrectomy between 1995 through 2012 were collected from a prospectively maintained database at the Memorial Sloan-Kettering Cancer Center. Disease recurrence was defined as distant metastases or local failure in the operative site or regional lymph nodes. Factors associated smoking status and advanced disease (> AJCC Stage 2), disease recurrence, cancer-specific death, and overall mortality were determined.

Results: The prevalence of current, former, and never smoking at diagnosis was 16%, 30%, and 54%, respectively. 62.4% of patients reported a ≥ 20 pack-year smoking history. With a median follow up 4.5 years, disease recurrence occurred in 10.5% (n=170) and 19.4% (n=316) died during follow-up. Multivariate logistic regression demonstrated ≥ 20 pack-year smoking history was associated with a significantly increased risk of advanced disease (> AJCC Stage 2). While pathologic stage, Fuhrman grade, and systemic symptoms at presentation adversely affected cancer-specific survival, smoking status was not an associated risk of recurrence or death in multivariate analysis (p=0.34). Multivariate competing risks regression showed that current smokers faced a significantly higher risk of death than never smokers (hazard ratio 1.77, 95% confidence interval 1.23-2.44).

Conclusions: Patients with heavy smoking exposure presented with more advanced ccRCC. While smoking status at diagnosis and cumulative smoking exposure were not associated with clear cell renal cell carcinoma recurrence or cancer-specific death, our findings suggest that smoking exposure substantially increases risk of death in patients with ccRCC. Treatment plans to promote smoking cessation are recommended for these patients.

**NATIONAL IMPACT OF RESEARCH PRESENTED BY RESIDENT
PHYSICIANS AT THE KIMBROUGH UROLOGICAL SEMINAR**

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(Presentation to be made by Dr. Kasprenski)

Purpose: For more than 60 years, the Kimbrough Urological Seminar has provided military residents from civilian and active duty residency programs a welcoming opportunity to present their research in a well attended, military-friendly forum. The objective of this study was to investigate the quality and non-military applicability of military resident research by reviewing the rate of presentation at subsequent American Urological Association (AUA) annual meetings and the rate of publication in peer reviewed journals.

Materials and Methods: All abstracts presented during the resident competition at the Kimbrough Urological Seminar from 2008 to 2012 were identified by reviewing each respective meeting program. Presentations were categorized by the institution, branch, and urological subspecialty. Presentation at the AUA annual meeting was identified by searching www.jurology.com for abstracts in the AUA annual meeting programs. A PubMed search of the resident author and general project title was performed to identify subsequent publication in a peer reviewed journal.

Results: A total of 147 abstracts were presented during the resident competition of the Kimbrough Urological Seminar between 2008 and 2012. Resident presentations included topics from various fields within urology including oncology 62 (42%), general urology 21 (14%), minimally invasive 19 (13%), andrology 12 (8%), stones 10 (7%), pediatrics 6 (4%), male incontinence/reconstruction 5 (3%), female incontinence/pelvic medicine 5 (3%), trauma 4 (3%) and urinary diversion 3 (2%). Among those, 19 (13%) were presented at an AUA annual meeting and 38 (26%) were published in a peer reviewed Journal. Of the 38 published, Army residents contributed 14 (36%), Navy 2 (5%), Air Force 7 (18%) and Military residents at civilian institutions 15 (39%).

Conclusion: Despite a large volume and wide array of resident research projects presented at the Kimbrough Urological Seminar, a minority of the projects made an impact at the national level, as evidenced by the low rate of subsequent journal publication and/or presentation at the AUA.

Source of Funding: None

RESIDENTS COMPETITION - III

ABSTRACTS

PAPER #32

THE INCIDENCE OF UROTRAUMA IN OPERATION ENDURING FREEDOM: THE RISE IN EXTERNAL GENITALIA INJURY

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Abstract: During Operation Enduring Freedom (OEF), the predominance of injury has been related to blast mechanisms, particularly improvised explosive devices. Because of this, external genitalia trauma has become increasingly more common compared with historical data. The Naval Health Research Center (NHRC) Expeditionary Medical Encounter Database (EMED), which contains coded injury data from combat theater for all levels of medical care, was queried for ICD-9 codes specific to urologic injuries occurring during OEF from January 2010 to June 2012. During the study period, 526 service members (SM) sustained 992 urologic injuries. The majority of SMs were men (523, 99%) serving in the US Army (286, 54%). 79% (417) were dismounted at the time of injury and were injured by a blast mechanism (462, 88%). Of the 992 urologic injuries, including burns, 537 (54%) were to the scrotum or testicles, and 146 (15%) were to the penis. The remaining injuries were to the kidney (43, 4%), bladder/urethra (57, 6%), ureter (4, <1%), or had a non-specific label (205, 22%). SMs with genitourinary injuries often had severe Injury Severity Scores (ISS > 16). Over 90% were unable to return to duty. These data suggests a need for continued effort in design and implementation of protective equipment for the military SM. Further medical research is needed to understand the outcomes of these injuries and to provide DoD and VA medical providers with training to support SMs who sustain urologic injuries.

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PAPER #33

PRELIMINARY RESULTS OF A RANDOMIZED CONTROLLED TRIAL COMPARING LIPOSOMAL BUPIVACAINE VERSUS 0.25% BUPIVACAINE FOR LAPAROSCOPIC AND ROBOTIC UROLOGIC SURGERY

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Purpose: To compare total narcotic consumption during the postoperative hospital stay for patients receiving local anesthesia with liposomal bupivacaine versus 0.25% bupivacaine.

Materials and Methods: A prospective randomized single-blinded comparison-controlled trial was designed to assess liposomal bupivacaine versus 0.25% bupivacaine for laparoscopic and robotic urologic surgery. A total of 114 patients were included in the preliminary analysis, with 56 patients randomized to 0.25% bupivacaine and 58 patients randomized to liposomal bupivacaine. All of the port sites were injected systematically with either liposomal bupivacaine or 0.25% bupivacaine at the beginning of the operation. All surgeries were performed by one of two surgeons belonging to a large urology group practice. The primary outcome measure was total narcotic use defined as morphine-equivalent doses during the entire postoperative hospital stay. Secondary endpoints include numerical rating scale pain scores, mean narcotic use during each 8-hour time interval following surgery, the time to first narcotic use after surgery, the number of patients who require no narcotics during their hospital stay, duration of hospital stay, and complications.

Results: In this preliminary analysis of the data set, the total narcotic use during postoperative hospitalization for liposomal bupivacaine (19.87 mg) was lower as compared with 0.25% bupivacaine (26.47 mg), but our study population is not yet large enough to demonstrate statistical significance ($p = 0.17$). No complications were attributed to the use of local anesthesia.

Conclusions: Early analysis of the data set demonstrates a trend towards less total narcotic consumption during the postoperative hospital stay for liposomal bupivacaine as compared with 0.25% bupivacaine for local anesthesia during laparoscopic and robotic urologic surgery. Currently, the study is underpowered and accrual of patients is ongoing.

Source of Funding: None

**COMPARISON OF OUTCOMES AFTER TRANSURETHRAL RESECTION
VERSUS PHOTOVAPORIZATION OF THE PROSTATE WITH RESPECT TO
TRAINEE INVOLVEMENT UTILIZING ACS-NSQIP**

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(Presentation to be made by Dr. Olcese)

Purpose: While the benefits of photovaporization of the prostate (PVP) versus transurethral resection of the prostate (TURP) for benign prostatic hyperplasia (BPH) have been examined in various small trials and retrospective reviews, large, multicenter studies comparing outcomes between the two are sparse. In addition, there have been no studies which have compared the influence of trainee involvement on outcomes of PVP versus TURP. Our objectives were to assess 30-day outcomes after PVP and TURP for BPH, and compare those outcomes with respect to trainee involvement using an independent national surgical database.

Materials and Methods: Using the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) database (2005-2011), 7,893 men were identified who underwent either TURP or PVP for BPH at 109 participating hospitals. Regression models, which included propensity score adjustment to minimize the influence of treatment selection bias, were constructed. Models assessed the association between surgical approach (TURP vs PVP) and risk-adjusted overall morbidity, surgical site infection (SSI), serious morbidity, and mortality, as well as individual complications in patients undergoing surgery for BPH. The relationships between operative approach, operative duration, and extended duration of stay were also examined and subdivided based upon trainee year level.

Results: Of 7,893 patients, 4,950 (62.7%) underwent TURP and 2,943 (37.3%) underwent PVP. Patients who underwent TURP were slightly older and more likely to have diabetes, cancer, history of steroid use, and preoperative transfusion compared with those undergoing PVP, who were more likely to have CAD or a bleeding disorder. Risk adjusted overall morbidity was similar between both groups; however, TURP had a greater risk of serious morbidity (OR 2.03, 95% CI (1.47-2.79), $p < 0.001$), while PVP was associated with less pneumonia (0.2% vs 0.5%, $p < 0.015$), bleeding requiring transfusion (0.5% vs 1.8%, $p < 0.001$), and return to the OR (1.5% vs 2.2%, $p < 0.022$). All patients treated with PVP also had significantly shorter length of stay (0.8 vs 2.1 days, $p < 0.001$). There were no statistically significant differences in outcomes when a trainee was involved in the procedure. Operative duration was similar for both PVP and TURP when performed by an attending alone (52 vs 52 minutes [$P < 0.001$]). Operative duration was significantly longer for both PVP and TURP when a trainee was involved regardless of PGY level ($p < 0.001$). Comparison of operative duration amongst different trainee subgroups demonstrated significantly longer operative times for the PGY6-9 subgroup performing PVP when compared to all other trainee subgroups ($P < 0.003$).

Conclusions: Within ACS NSQIP hospitals, PVP and TURP demonstrated similar overall morbidity after risk adjusted analysis; however PVP was associated with less serious morbidity, including pneumonia, need to return to the OR, and bleeding despite PVP patients being more likely to have a bleeding disorder pre-operatively. While operative times were significantly longer for both PVP and TURP with trainee involvement, there was no significant difference in outcomes.

Source of Funding: None

CLINICAL RESEARCH PRESENTATIONS

ABSTRACTS

**ROBOTIC-ASSISTED TRANSVESICAL REPAIR OF A COLOVESICAL
FISTULA**

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Introduction: Colovesical fistula is a rare, but well recognized complication of prior abdominopelvic surgery, diverticular disease, previous pelvic radiation therapy, and others. Management is often challenging and can require repair with the use of open surgery if endoscopic techniques fail. We present repair of a colovesical fistula from a Hartmann's pouch to the posterior bladder using a minimally-invasive, robotic-assisted, extraperitoneal approach in a patient with prior history of multiple open abdominal and pelvic procedures.

Materials and Methods: We present a video describing our technique. The key elements to our approach were: (1) Cystoscopy to identify the fistula and assist in port placement. (2) Placement of bilateral ureteral stents to assist with identification of the ureteral orifices. (3) Veress needle insulflation of the bladder with saline drainage facilitated by placement of a urethral catheter at the bladder neck. (4) Trocar placement through the previously identified tracts. (5) Robotic-assisted fistula excision and multi-layered closure. The patient was placed in slight Trendelenburg position during the surgery and the robot was docked between the patient's legs. A camera port and two 8mm robotic ports were used.

Results: The case was uncomplicated with an operative time of 123 minutes. The estimated blood loss was <10ml. The patient recovered as expected, requiring only 20mg morphine equivalents. He was discharged from the hospital on post-operative day #1. Follow up cystoscopy revealed scarring at site of repair, but the fistula appeared closed. A cystogram was performed and no fistula visualized.

Conclusion: The described technique provided a minimally-invasive extraperitoneal approach with excellent visualization and access to a colovesical fistula in a patient where that had a history of multiple abdominal and pelvic surgeries. Morbidity was low and the outcome has been positive.

The views and opinions expressed herein are those of the authors and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense, or the U.S. Government.

PAPER #36

OUTCOMES OF GENITOURINARY INJURY IN MALE VETERANS OF OPERATION IRAQI FREEDOM AND OPERATION ENDURING FREEDOM RECEIVING CARE AT VETERANS ADMINISTRATION HEALTH CARE FACILITIES

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(Presentation to be made by Dr. Hudak)

Purpose: Despite the relatively high incidence of genitourinary (GU) trauma among service members during Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF), little is known about the long term impact of GU injuries. The objective of this study was to evaluate the prevalence of co-morbid neuropsychiatric diagnoses and adverse urinary, sexual, and fertility outcomes in male veterans of OIF/OEF receiving care for GU injuries at Veterans Administration (VA) health care facilities.

Materials and Methods: A retrospective review of VA electronic medical records was performed for all male OIF/OEF veterans receiving VA care at least once between 1 October 2001 and 30 September 2011. Patients with GU injury diagnosis were identified by ICD-9-CM codes and compared with those without a GU diagnosis. Co-morbid neuropsychiatric diagnoses and adverse urinary, sexual, and/or fertility outcomes were also identified by ICD-9-CM codes. Bivariate analysis was performed using Chi-square tests. Adjusted odds ratios (AOR) were calculated using multivariable logistic regression.

Results: Among the 672,301 male OIF/OEF veterans who received VA care during the 10 year study period, 301 (0.04%) had been diagnosed with GU injury. The most commonly diagnosed GU injuries included open scrotal/testis wound (n = 75) and open penile wound (n = 66). Diagnosis of neuropsychiatric illness was more common in the GU injury group, including traumatic brain injury (18% vs. 9%), post-traumatic stress disorder (39% vs. 22%), and major depression (21% vs. 8%, all $p < 0.001$). Adverse urinary (14% vs. 2%, $p < 0.001$) and sexual (11% vs. 5%, $p < 0.001$) outcomes were more common in men with GU injuries. Infertility was infrequently diagnosed in both groups (1.4% vs. 0.3%). After adjustment for other factors, diagnosis of GU injury maintained a strong association with adverse urinary outcomes (AOR 3.8, 95% CI 2.4—6.2) and adverse sexual outcomes (AOR 2.2, 95% CI 1.4—3.5).

Conclusions: Diagnosis of GU injury in male OIF/OEF veterans is associated with a high rate of neuropsychiatric illness and an increased risk of adverse urinary and sexual outcomes.

Source of Funding: VAHSR&D DHI09-237

PAPER #37

CRITICAL ANALYSIS OF THE TIME FROM INITIAL PATIENT PRESENTATION TO REFERRAL FOR DEFINITIVE BULBAR URETHROPLASTY

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Purpose: Treatment options for anterior urethral strictures include urethral dilation, direct vision internal urethrotomy, and urethroplasty. Patterns of management vary widely and can relate to patient specific factors such as age, co-morbidity, treatment preference, and stricture characteristics, as well as geographic location, physician training, and access to tertiary care. There is little information about the natural history of bulbar stricture disease from the time of symptom development to urethroplasty. Here we describe the patient experience from the time of symptom presentation to referral for definitive repair in a cohort of patients who underwent urethroplasty at Duke University.

Methods: We analyzed data from the Duke Urology stricture database to identify men who underwent bulbar urethroplasty from January 1996 to September 2011. We reviewed patient demographics, specifics regarding the urethral stricture, the date symptoms began, and the date of surgery.

Results: 334 patients underwent bulbar urethroplasty from January 1996 to September 2011. The average time from the initial development of symptoms to urethroplasty was 9.05 years (range 0.2-47 years, median 5 years). 306 patients (91.6%) underwent urethral manipulation (DVIU, dilation, or prior urethroplasty) prior to urethroplasty at Duke University. Average stricture length based on intra-operative measurement was 1.94 cm (median 1.5 cm). 150 patients (44.9%) underwent augmented anastomotic repair and 184 patients (55.1%) underwent excision with primary anastomosis.

Conclusions: The time from the initial development of symptoms to referral for definitive urethroplasty is very long, at greater than nine years. Furthermore, the majority of patients in this cohort underwent prior urethral manipulation (DVIU, dilation, and prior urethroplasty). In today's world of high success rates with a minimally invasive same-day surgery, we feel that many patients would benefit from earlier referral for definitive urethroplasty.

	Weak Stream	Dribbling	Spraying	Straining	Irritative Symptoms	Dysuria	Hematuria	Asymptomatic
Overall Failure(n=44)	84.1%	11.4%	0%	2.3%	2.3%	2.3%	4.4%	4.5%
Overall Success(n=444)	0.7%	4.7%	2%	0%	0.45%	0.23%	0.45%	91.0%
Penile Failure(n=7)	71.4%	0%	0%	0%	0%	0%	14.3%	14.3%
Penile Success(n=42)	0%	7.1%	9.5%	0%	0%	0%	0%	83%
Bulbar Failure(n=28)	85.7%	10.7%	0%	3.6%	0%	3.6%	3.6%	0%
Bulbar Success(n=367)	0.8%	3.3%	1.1%	0%	0.5%	0.2%	0.54%	92%
Anterior Failure(n=9)	88.9%	22.2%	0%	0%	11.1%	0%	0%	11.1%
Anterior Success(n=35)	0%	17%	2.9%	0%	0%	0%	0%	80%

PAPER #38

AN UPDATE ON THE EVOLVING URETHROPLASTY OPTIONS FOR BULBAR URETHRAL STRICTURE DISEASE; MORE OPTIONS LESS COMPLICATIONS

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(Presentation to be made by Dr. Peterson)

Purpose: The past fifteen years have brought dramatic changes to the surgical options for the treatment of bulbar urethral stricture disease. We present a single center experience describing the evolution of procedure selection and outcomes for bulbar urethral stricture disease over the past fifteen years.

Materials and Methods: We performed an IRB approved retrospective review of the Duke urethroplasty database for all patients who underwent urethroplasty by two surgeons (GDW, ACP) for bulbar urethral stricture disease from 1/1/1996 to 8/31/2011. We recorded demographic, stricture, surgical and post-operative information for our analysis. Chi-square test was used to calculate recurrence rates with respect to repair type and a two-tailed T test was used to compare stricture length between groups. Results: We identified 429 men who underwent urethroplasty for bulbar urethral stricture disease by two surgeons (GDW, ACP) from 1/1/1996 to 8/31/2011. Of these 429 men, 384 (90%) had available follow up data. Table 1 provides a detailed description by repair type.

Figure 1 illustrates that over the timeframe reviewed we noted a significant increase in the use of buccal mucosa replacing the use of penile tissue for augmented repairs. In addition, excision and primary anastomosis rates increased significantly since 2004. This may partially be explained by an increase in the average stricture length of patients who underwent EPA after 2004 (1.54cm vs. 1.32cm, $p=0.05$). These changes in procedure selection also had changes in outcome.

AAR with buccal mucosa had a statistically significant decreased recurrence rate when compared to AAR with penile skin (18.9% vs 5.8%, $p=0.05$). Further the increased stricture length of EPAs after 2004 compared to 2004 and before was not associated with any significant change in recurrence rate (6.9% vs 3.0%, $p=0.27$).

Conclusions: While the transition from the use of penile skin to buccal mucosa for AAR at our institution was relatively abrupt it was associated with an overall decrease in recurrence rates. Furthermore, although we have become more aggressive with respect to stricture length since 2005 when performing EPAs we have not seen an increase recurrence rates.

PAPER #39

MESH PERFORATION AFTER PELVIC SURGERY: TROCAR INJURY MATTERS

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(Presentation to be made by Dr. Osborn)

Purpose: To evaluate the impact of technical and patient factors on the development of mesh perforation compared to exposure in patients who underwent midurethral sling and pelvic support surgeries that utilize a trocar and synthetic mesh.

Materials and Methods: A retrospective review was performed of consecutive patients undergoing surgery because of mesh perforation or mesh exposure at a single institution between 2003-2012. Mesh perforation was defined as mesh within the lumen of the bladder or urethra. Exposure was defined as mesh visible through separated vaginal epithelium. Chi-squared tests were used to compare variables between patients with mesh perforation and mesh exposure. The risk of mesh perforation over exposure was analyzed with multivariate logistic regression, adjusting for the possible predictors of age, body mass index (BMI), smoking status at the time of mesh placement, presence of diabetes, type of sling placed, type of surgeon, and trocar injury at the time of mesh placement.

Results: A total of 83 women were identified, 28 with mesh perforation and 55 with mesh erosion. The average age was 49.8 years. The median time between mesh placement and mesh revision surgery was 32.5 months (IQR 38.5). The patients' average BMI was 29.2, 30% were smokers and 13% were diabetic. Of the 55 patients with mesh exposure, 50 had undergone mid-urethral sling placement (20 transobturator approaches, 24 retropubic approaches and 6 mini-slings). Five patients had undergone prolapse kit placement. In the exposure group, a gynecologist or urologist was the performing surgeon in 76% and 24% of the cases respectively. Of the 28 patients with mesh perforation, 27 had undergone mid-urethral sling placement (6 TOTs, 20 TVTs and 1 mini-sling). One patient had undergone surgery utilizing a prolapse kit. A gynecologist or urologist both performed 50% of the 28 cases. Ten (42%) patients in the perforation group and 2 (4%) patients in the exposure group had to have a trocar removed and replaced because it was found to be in or too close to the bladder or urethra at the time of mesh placement (Chi-Squared $p < 0.001$). Voiding complaints were the presenting symptom in 15 of the 28 patients with mesh perforation compared to 1 patient with mesh exposure (Chi-Squared $p < 0.001$). After multivariate logistic regression analysis, trocar injury (OR 15.7, 95% CI 2.25 – 109.25, $p = 0.005$) and diabetes (OR 10.5, 95% CI 1.22 – 90.3, $p = 0.032$) were associated with an increased risk of mesh perforation. BMI (OR 0.87, 95% CI 0.77 – 0.98, $p = 0.024$) was associated with a decreased risk of mesh perforation. Smoking status, the type of performing surgeon and transobturator versus retropubic trocar placement were not found to be significant risk factors for mesh perforation.

Conclusions: Our analysis suggests the risk for mesh perforation after pelvic support procedure is increased in patients with diabetes and trocar injury at the time of the procedure and inversely related to BMI. Although trocar injury at the time of pelvic surgery is traditional thought of as a benign complication with no increased risk of an adverse outcome, our study shows that this may not be the case.

Source of Funding: None

LONG-TERM OUTCOMES OF AUTOLOGOUS FASCIAL SLING IN
COMPLEX STRESS URINARY INCONTINENCE

Chong H. Choe, M.D., Bhavin Patel, M.D. Jason Kim, M.D., Blair
Washington, M.D.*, Una Lee, M.D., Alvaro Lucioni, M.D.,
Kathleen Kobashi M.D.: Mercer Island, WA
(Presentation to be made by Dr. Choe)

Purpose: Patients with persistent or recurrent stress urinary (SUI) incontinence after previous anti-incontinence procedures can be a challenging group of patients to treat. The objective of this study was to evaluate the long-term outcomes of autologous fascial slings in patients with complex SUI, as defined as those with at least one previous anti-incontinence surgery.

Methods: A cross-sectional analysis was performed on a prospective database of all female pelvic floor patients seen at our institution from 1999 to 2010 was performed. All patients that had an autologous rectus fascial sling and had a history of at least one previous anti-incontinence procedure were selected.

Results: 68 patients met our inclusion criteria. Of these, follow up data was available on 48 patients. Each patient had an average of 2.1 (range 1-6) previous anti-incontinence procedures. Their average VLPP was 32 cm of H₂O. At an average follow-up of 6.1 years (range 2-11 years), the dry and success rates in this set of complex patients was 14.6% and 70.8%, respectively. The median satisfaction score was 80% (0 – 100%). There were no predictors of a dry or a successful outcome.

Conclusions: Despite having a low long-term dry rate, success and satisfaction scores after autologous fascial slings in patients with complex SUI make it one of the few viable treatment options. The data presented here can be used to counsel complex patients regarding outcomes after autologous fascial slings.

Source of Funding: None

PAPER #41

URODYNAMIC PARAMETERS ASSOCIATED WITH THE RESOLUTION OF OVERACTIVE BLADDER SYMPTOMS AFTER ANTERIOR VAGINAL WALL PROLAPSE REPAIR

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(Presentation to be made by Dr.Choe)

Purpose: The purpose of this study was to determine which urodynamic (UDS) parameters were associated with the resolution of overactive bladder (OAB) symptoms after anterior pelvic organ prolapse (POP) repair.

Methods: All patients who underwent anterior POP repair only without concomitant anti-incontinence procedure with preoperative UDS evaluation and preoperative and postoperative Urogenital Distress Inventory (UDI-6) were eligible for the study. Patients on anticholinergic medication were excluded. Two groups were stratified according to questions 1 and 2 of the UDI-6 to assess for OAB symptoms. Both groups had OAB symptoms prior to POP repair. Postoperatively, group A were "not at all" bothered by OAB symptoms. Group B were "slightly", "moderately", or "greatly" bothered by OAB symptoms. The preoperative UDS parameters were then analyzed.

Results: 45 patients met our inclusion criteria. 12 patients (26.7%) met criteria for group A and 33 patients (73.3%) met criteria for group B. Group A had an average Baden-Walker grade of 2.23 (sd 0.93) and group B had an average Baden-Walker grade of 2.21 (sd 0.90) for the anterior compartment. The average number of days the UDI-6 questionnaires were completed after surgery for group A and B were 321 and 270 days, respectively. The average preoperative and postoperative combined score of questions 1 and 2 of the UDI-6 for group A was 4.58 and 2.00, respectively. The average preoperative and postoperative combined score of questions 1 and 2 of the UDI-6 for group B was 5.15 and 4.58, respectively. The UDS parameter which was statistically different between group A and B was detrusor pressure (Pdet) at maximum flow (Qmax) at 28.40 vs. 18.35 cm H₂O ($p < 0.05$), respectively.

Conclusions: The only UDS parameter associated with resolution of OAB symptoms after anterior POP repair was Pdet at Qmax. We can speculate that this could be secondary to correction of anatomic obstruction after anterior POP repair. Further study is needed in a larger group of patients to confirm our findings.

Source of Funding: None

IN-SITU URETHROPLASTY DECREASES URETHRAL STRICTURE FORMATION AFTER AUS CUFF EROSION

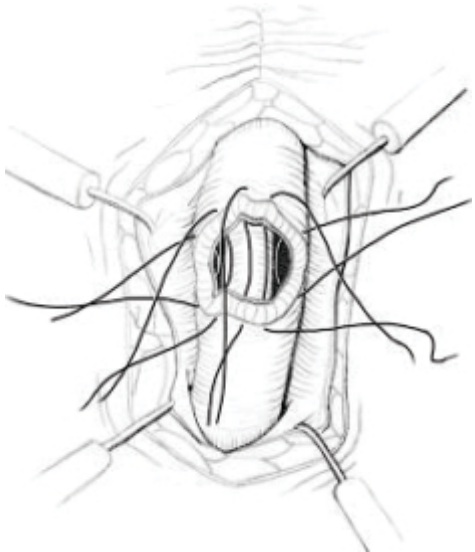
Timothy J. Tausch, MD, Alexander T. Rozanski, BA*, Daniel Ramirez, MD*, Jay Simhan, MD*, J. Francis Scott, BS*, Allen F. Morey, MD: Dallas, TX (Presentation to be made by Dr. Tausch)

Introduction and Objective: Traditional management of AUS cuff erosion includes stenting the urethral defect with a Foley catheter at the time of cuff removal. We hypothesized that "in-situ" urethroplasty (ISU) at the time of explantation for erosion may prevent stricture formation. This study compares stricture outcomes of AUS cuff erosion patients managed with and without synchronous urethral repair.

Methods: All patients undergoing AUS removal for cuff erosion from 2007–2013 were reviewed. Following removal of the eroded AUS cuff, we performed ISU by re-approximating the ventral surface of the urethra using interrupted, full thickness 2-0 absorbable monofilament sutures (figure) without additional spongiosal mobilization. Two cohorts of patients were evaluated – group 1 patients underwent ISU while those in group 2 were treated with a Foley catheter only (FCO). We compared demographic, clinical, and radiologic data to assess resultant stricture disease between both cohorts, as well as operative times.

Results: Of the 26 cases identified, 14 patients (54%) underwent in-situ urethroplasty (group 1) while 12 (46%) did not (group 2). The mean age was 73 (range 61–83) years, with a mean follow-up of 24 months (8 – 69). The rate of stricture after AUS explantation was significantly reduced in group 1 compared to group 2 (5/14; 36% vs 9/12; 75%, $p=0.047$). Mean operative times were similar: 78 min (50–133) for the ISU group versus 70 min (51–92) for the FCO group ($p=0.39$). Stricture formation was not associated with a history of hypertension, pelvic radiation, diabetes, coronary artery disease, renal disease, or smoking ($p>0.05$).

Conclusion: In-situ urethroplasty is an efficient and reliable strategy for reduction of urethral stricture formation after AUS cuff erosion



**HEMOSTATIC MATRIX APPLICATION TO REDUCE POST-OPERATIVE
SCROTAL HEMATOMA FORMATION DURING INFLATABLE PENILE
IMPLANTATION**

Seth D. Cohen, MD, MPH: San Diego, CA

Introduction: Currently, the two well-documented methods of preventing a post implant scrotal hematoma are a closed-suction drain or a "mummy wrap." A novel technique to facilitate reliable and safe cylinder placement with minimal postoperative scrotal swelling is described along with patient outcomes.

Methods: 217 patients underwent placement of an inflatable penile prosthesis (IPP) through a peno-scrotal approach utilizing the prior described "no touch" technique. During each corporotomy closure, 5cc of Surgiflo® hemostatic matrix was injected into each corporotomy just prior to tying down the last knot of our running stitch. This allowed for optimal placement of the agent. With hemostasis achieved, we completed the procedure without placement of a drain or wrap.

Results: From 2012 to 2013 there were no intraoperative complications with regards to the cylinders, pump, tubing, or reservoir. Follow-up for each patient was at 6 weeks, 3 months, 6 months and out to one year. Of the 217 implants there have been zero infections and a noticeable decrease in postoperative scrotal swelling, edema and hematoma formation at the above follow-up office visits.

Conclusions: The application of a hemostatic matrix into each corporotomy during corporotomy closure is a safe and useful alternative to traditional drains or wraps. Performing even difficult removal and replacement IPPs is possible with this technique, and the reduction in hematoma formation will reduce the opportunity for implant infection

PAPER #44

THE INCIDENCE OF ACTIVE SURVEILLANCE FOR PRIMARY MANAGEMENT OF LOW-RISK PROSTATE CANCER IN A STATE-WIDE QUALITY IMPROVEMENT COLLABORATIVE

LCDR Paul R. Womble, MD¹, James E. Montie, MD*¹, Zaojun Ye, MS*¹, Susan M. Linsell, MHSA*¹, Brian R. Lane, MD, PhD*², David. C. Miller, MD, MPH*¹,
1Ann Arbor, MI, 2Grand Rapids, MI
(Presentation to be made by Dr. Womble)

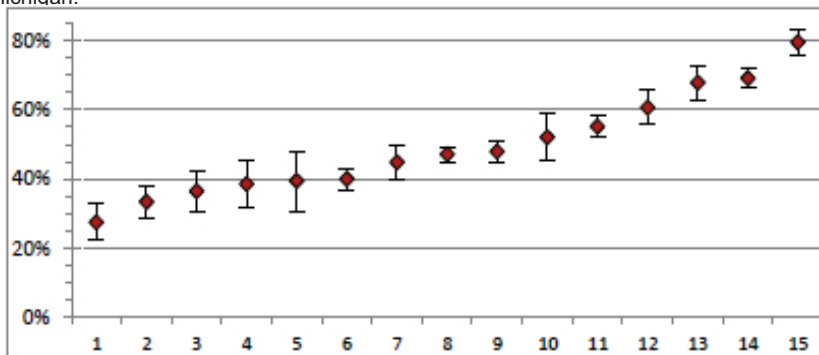
Introduction: Given growing concerns that many men with low-risk prostate cancer are overtreated, active surveillance has emerged as a principle management option for these patients. While historic trends for active surveillance suggests that it is used in less than 25% of patients with low-risk disease, little is known about its contemporary application, particularly in community-based practices. In this context, we report current rates of active surveillance among a population-based sample of men in the state of Michigan.

Methods: The Michigan Urological Surgery Improvement Collaborative (MUSIC) is a statewide collaborative that comprises 29 academic and community urology practices throughout Michigan. Trained data abstractors submit standardized clinical data to a web-based registry. For analysis, we included all men a prostate cancer diagnosis and entered into the registry from March 2012 to June 2013. We defined patients with low-risk prostate cancer according to the following criteria: PSA < 10, Gleason = 6 and cT1/cT2a. After limiting our analysis to practices with at least ten low-risk patients, we compared proportions of men receiving active surveillance as initial therapy across practices.

Results: From March 2012 through June 2013, 2,022 patients with newly diagnosed prostate cancer we entered into the MUSIC registry. Among this group, 571 men (28.3%) met criteria for low-risk cancers, of which 541 (24.6%) were managed in practices with at least 10 low-risk prostate cancer patients. Patients in this cohort had a median age of 63 years (range 42 – 90) and a median PSA of 5.0 (range 0.3 – 9.9). The number of patients per practice ranged from 11 to 126. Overall rate of active surveillance for initial therapy was 51.4%. The unadjusted proportion of patients receiving active surveillance for low-risk disease ranged from 25.0% to 79.2% across 15 practices ($p=0.008$). Even after accounting for differences in patient characteristics, the adjusted probability remained highly variable across practices, ranging from 27.4% to 79.6% ($p=0.016$, Figure).

Conclusion: Over 50% of men in Michigan with low-risk prostate cancer undergo active surveillance for initial therapy, which is appreciably higher than historically reported. The impact of these emerging practices will depend on validation of the duration of therapy, quality of life and long-term cancer control outcomes.

Figure: Adjusted probability* for active surveillance for men with low-risk prostate cancer in Michigan.



*Model adjusts for age, race, Charlson comorbidity index, and primary payer.

Source of Funding: Blue Cross Blue Shield of Michigan.

RESEARCH COMPETITION - IV

ABSTRACTS

**HIGH SUBMUSCULAR VERSUS SPACE OF RETZIUS PLACEMENT
OF IPP RESERVOIRS: WHAT ARE SURGEONS SAYING?**

Timothy J. Tausch, MD, J. Francis Scott, BS*, Ryan Flemons, BS*, Jay Simhan, MD*, Steven K. Wilson, MD*, Allen F. Morey, MD: Dallas, TX
(Presentation to be made by Dr. Tausch)

Objectives: Placement of reservoirs outside the traditional Space of Retzius (SOR) "ectopically" has been advised in difficult implantations since 2001. High submuscular (HSM) IPP reservoir insertion is a recent innovation which involves placing the reservoir ectopically but higher beneath the abdominal wall, and has proven to be both reliable and reproducible. We queried a variety of surgeons to assess their impressions of how HSM reservoir placement compares with traditional SOR placement.

Methods: A nationwide group of urologists trained in HSM reservoir placement were surveyed to assess preferences and concerns compared to SOR placement. Using a Likert scale survey, we compared HSM to traditional SOR placement with regard to ease of implementation, surgical preference, and patient safety. Results were analyzed according to level of activity in prosthetic urology volume.

Results: A total of 25 urologists from 8 states participated in this survey (12 residents and 13 attendings). Overall, surgeon responses indicate that HSM placement is safer ($p<0.001$), easier to learn ($p=0.008$) and teach ($p=0.002$), and additionally conveys lower risk to visceral ($p<0.001$) and vascular ($p<0.001$) structures. The vast majority (17/25, 68%) prefer HSM placement, while 4/25 (16%) are neutral, and 4/25 (16%) prefer SOR. High-volume implanters (>20 implants/year), also find the HSM technique safer ($p=0.001$) with lower risks of visceral ($p=0.010$) and vascular ($p<0.001$) injuries, and 7/9 (78%) prefer this method.

Conclusion: Urologists trained in HSM reservoir placement report that this technique is readily implemented, strongly preferred, and safer for patients.

Source of Funding: None

PAPER #46
**TESTOSTERONE TRANSFER TOXICITY – RECOGNIZING AND
REDUCING THE RISK**

Richard A. Watson, M.D. COL MC USA: Hackensack, NJ

Testosterone (T) transfer from inadvertent exposure to T-gel application sites – either by direct, skin-to-skin contact or by indirect contact with items contaminated by T-gel – places women and especially young children at risk of exogenous virilization.

Standard recommended precautions – washing hands after applying T-gel, covering application sites with underclothing, and avoiding skin-to-skin contact with the application site – provide important, but not always complete protection.

Such occurrences are thought to be infrequent, but the clinical consequences have proven significant in multiple, reported cases. The incidence of such exposures may be under-reported. This risk should be neither trivialized nor ignored.

**PERFORMANCE-ENHANCING MEDICATIONS IN SURGERY:
LANCE ARMSTRONG IN THE OPERATING ROOM?**

Richard A. Watson, M.D.: Hackensack, NJ

Lance Armstrong's alleged use of performance-enhancing agents has attracted worldwide attention to the use of these products in the sports world. Interest is now turning - with less drama, but with potentially far more serious consequences – to the misuse of comparable agents in the medical field.

Abuse of performance-enhancing agents, such as Adderall is reaching epidemic proportions on many college campuses. In a survey at a public medical college, more than 10% of the students admitted to using stimulants to improve academic performance. Several officials warn that the problem seems to be increasing in medical schools.

This potential threat of amphetamine addiction among surgical residents could result in profound, long-term consequences. Educators would do well to address the Adderall abuse issue now. Failure to focus on this danger could prove to be, for the future of our surgical profession, a very costly attention deficit.

{Editorial comment – not a formal study}

SURGEON PERFORMANCE AND DISTRACTIONS IN THE OPERATING ROOM: A RANDOMIZED, CONTROLLED, CROSSOVER TRIAL

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Purpose: Surgery is a complex interaction of cognitive and psychomotor skills that requires a great deal of concentration to perform safely. Cognitive overload (often the result of distraction and multi-attending) is frequently cited as a source of error in many fields and in daily life. The modern operating room is a complex environment with many distractions that may affect how resident and attending surgeons operate. This study defines how cognitive load affects actual surgeon performance.

Materials and Methods: We conducted a prospective randomized controlled trial with ten resident and ten attending surgeons. Participants were required to meet proficiency benchmarks on the Virtual Reality daVinci desktop simulator (dV Trainer, Mimic Technologies, Seattle WA) to minimize performance variability. Participants then performed four simulated surgical tasks with increasing complexity on the dV Trainer. Participants performed each task four times with cross-over; twice with distraction and twice as a control. Distraction was provided by 85 decibels of background operating room noise and non-related specialty based medical questions. Surgical performance was then determined from total procedure time, economy of motion, time instruments were out of view, and number of errors. Data were then analyzed using SPSS.

Results: Distraction had a detrimental effect on surgeon performance. There was a trend towards significance for increase in time for resident surgeons for time required to complete the most challenging task (rocking pegboard): 177 seconds vs. 185 seconds in the distraction group (4.5% difference, $p=0.35$). This percent difference in task time for task completion was similar across the tasks. Also, for the rocking pegboard, averaged across all subjects, economy of motion differed significantly at 722 cm vs 770 cm ($p=0.02$). The effect of distraction was greatest in resident surgeons. Distraction affected economy of motion more significantly for residents with an average economy of motion on pegboard level 1 with distraction of 485 cm vs 447 cm without distraction ($p=0.03$). Whereas attending surgeons on that exercise had no statistically significant difference in economy of motion: 446 cm without distraction vs 448 cm with distraction ($p=0.86$).

Conclusions: We have shown that distractions during VR robotic task performance such as background noise and questioning may adversely affect surgeon performance. This effect seems to be greatest in surgical trainees. These data inform us that the detrimental effect distractions have on surgical performance among trainees should be studied in the operating room.

Source of Funding: None

LAPAROSCOPIC VERSUS ROBOTIC PROSTATECTOMY: IS THERE A DIFFERENCE?

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(Presentation to be made by Dr. Jonathan H. Berger)

Purpose: Minimally invasive prostatectomy for prostate cancer has been performed since the early 1990's. Laparoscopic prostatectomy was associated with a steep learning curve and required extensive laparoscopic experience. The advent of robotic prostatectomy simplified that learning curve and broadened the availability of minimally invasive prostatectomy. Direct comparisons of the two techniques have not been extensively examined. Some laparoscopic surgeons continue to perform prostatectomy purely laparoscopically with the presumption that there is no appreciable difference in experienced hands. We sought to objectively evaluate this assumption by comparing our initial series of robotic prostatectomies to our last series of pure laparoscopic cases.

Materials and Methods: From September 2004 to September 2009, a laparoscopic prostatectomy program was developed at our institution. The majority of these cases were performed in an extraperitoneal fashion with an anterior approach. From September 2009 to present, all minimally invasive prostatectomies were performed robotically, using the daVinci S system. We compared our last 40 laparoscopic prostatectomies with our first 40 robotic cases. This particular series was chosen to avoid bias resulting from experience driven technical improvements. Patient characteristics, intraoperative and post-operative parameters were compared. Ability to allow for resident involvement in portions of the procedure was also assessed.

Results: 40 laparoscopic prostatectomies were compared to 40 robotic prostatectomies. The operative time, EBL, and transfusion rates were less with robotics. Oncologic outcomes were similar with both techniques. Transference of portions of the procedure to residents was markedly simplified in the robotic arm.

Conclusions: The robotic approach to laparoscopic prostatectomy is associated with improvements in operative times and estimated blood loss. It also facilitates transference of technique to trainees and surgeons without advanced laparoscopic reconstructive experience. Even in experience laparoscopic hands, the transition to robotics is beneficial.

Source of Funding: None

**NERVE SPARING PROSTATECTOMY FOR HIGH RISK CLINICALLY
LOCALIZED PROSTATE CANCER**

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(Presentation to be made by Dr. Musser)

Objectives: Utilization of nerve sparing approach for radical prostatectomy varies significantly across the literature and may depend on factors such as biopsy and imaging findings, baseline erectile function, cancer characteristics, surgical approach, and intraoperative findings. In some cases, surgeons may omit nerve sparing due to perceive risk of positive margins or assume that nerve sparing may be less effective for patients at higher risk. In this study, we examine the feasibility of nerve sparing radical prostatectomy for high risk disease.

Methods: After IRB approval, our prospectively maintained clinical database was queried for men who had RP as primary therapy from 2006-2012 for high risk prostate cancer according to D'Amico risk stratification. Patients meeting any one of the following criteria were included: PSA >20 ng/mL, clinical stage T2c or greater or preoperative Gleason grade 8-10. Patients were excluded if they had undergone previous radiotherapy or androgen deprivation therapy. Nerve sparing was graded at the time of surgery by the attending surgeon according to a 4 point scale for each side. Grades 1-3 indicate varying degrees of preservation of the neurovascular bundle (NVB), while grade 4 indicates wide resection of the NVB. Pathologic outcomes including stage, lymph node involvement and surgical margin status were reviewed.

Results: A total of 710 patients met inclusion criteria. Median age at surgery was 62. 389 men underwent RRP, 176 LP, and 145 RALP. 536 (75%) had bilateral nerve preservation (including grades 1-3), 99 (14%) had unilateral nerve preservation, and 75 (10%) had wide resection of the NVB bilaterally. 194 (27.3%) were <pT3, 483 (68%) were pT3, and 33 (4.6%) were pT4. Positive margin rate is 25.2% overall and 27.8% (196/704) had positive lymph nodes. Of the 536 who had bilateral nerve sparing, 120 (22%) had a positive margin, 123 (22.9%) had +LN's, 366 (68%) were pT3a or higher, including 18 (3.4%) who were pT4.

Conclusions: Nerve sparing is feasible for the majority of men with high risk features with an acceptable rate of positive margins. Further study of quality of life outcomes is needed to determine the efficacy of NVB preservation in high risk patients.

Source of Funding: Supported by the Sidney Kimmel Center for Prostate and Urologic Cancers

PAPER #51
TRANSVESICAL ROBOTIC-ASSISTED BLADDER
DIVERTICULECTOMY- DESCRIPTION OF TECHNIQUE

CDR (Ret.) Brian K. Auge, MD, FACS, Kara Taggart, MD and Steven
Brassell, MD, FACS. St. Luke's Health System, Boise, ID
(Presentation to be made by Dr. Auge)

Intorduction: Severe bladder outlet obstruction can result in compromised bladder function and the development of bladder stones or diverticula. Treatment to relieve the obstruction fails to address the sequelae of long-standing BPH. We review our technique for robotic-assisted bladder diverticulectomy in patients undergoing concomitant simple prostatectomy.

Methods: Patients with symptomatic BPH and prostates measuring greater than 80 cc on digital rectal examination estimation or transrectal ultrasound volume with concomitant bladder diverticula were offered robotic-assisted laparoscopic surgery. The transvesical approach was preferred over extravesical due to the need for simple prostatectomy and removal of bladder stones.

Results: Two patients were found to have refractory bladder outlet obstruction secondary to a large prostate and bladder diverticula underwent successful surgical correction. The transvesical approach was utilized in both men successfully removing the divercula and closing the bladder defect. Robotic suprapubic prostatectomy was also performed with no perioperative events. The foley catheter remained in place for 10-12 days, and cystogram demonstrated no extravasation at time of foley removal.

Conclusions: Robotic-assisted transvesical bladder diverticulectomy is safe and effective in men undergoing surgical correction for BPH with extremely large prostates.

URINARY RETENTION RATES AFTER INTRAVESICAL
ONABOTULINUMTOXINA INJECTION FOR OVERACTIVE BLADDER IN
CLINICAL PRACTICE

David J. Osborn, M.D., Stephen Mock, M.D.*, Meghana Gowda, M.D.*, Osa Okunbor*, Xuechao Zhang*, Michael Guan*, Melissa Kaufman, M.D.*, Roger Dmochowski, M.D., W. Stuart Reynolds, M.D.*:Nashville, TN
(Presentation to be made by Dr. Osborn)

Purpose: Overactive bladder is a common medical ailment throughout the world, which affects 12 to 16% of men and women. Initial studies of OnabotulinumtoxinA (BTN/A) for medication-refractory overactive bladder (OAB) symptoms reported rates of urinary retention as high as 43%; however, in more recent randomized, placebo-controlled trials the rates are a lower 6.9%. The purpose of this study was to analyze the rate of urinary retention in clinical practice after treatment with BTN/A for this indication.

Materials and Methods: A retrospective review was performed patients who underwent intravesical BTN/A injection from 2003-2012 for non-neurogenic OAB. Patients were excluded if they had a history of a neurologic condition, a pre-op PVR of greater than 200ml, a prior history of self-catheterization or lack of adequate follow up. Patients were analyzed with respect to their first BTN/A injection. Parameters investigated included demographic information, comorbid medical conditions, and results of preoperative urodynamics. Outcome measures included subjective improvement in urge urinary incontinence, urinary retention (defined as a PVR > 300ml or need to catheterize), urinary tract infection and repeat Botox treatment. The associations between post-injection retention and age, gender, dosage of BTN/A, diabetes, pelvic radiation, type of anesthesia, preoperative PVR, maximum flow during uroflowmetry and maximum detrusor pressure during voiding were assessed with multivariate logistic regression.

Results: After applying the inclusion and exclusion criteria, 145 were eligible for analysis. Mean age was 64 and 23% of the patients were men. The median follow up was 12 months (IQR 22). Overall, 66% of patients reported subjective improvement in their symptoms. The rate of urinary retention was 32% (n=46) and the median length of daily intermittent catheterization was 14 weeks. This did not differ based on age, gender, dosage of BTN/A, diabetes, pelvic radiation, type of anesthesia, maximum flow during uroflowmetry and maximum detrusor pressure during voiding. However, after adjustment, an elevated preoperative PVR was associated with postoperative urinary retention (OR 1.02, 95% CI 1.01 – 1.04, p 0.001). In patients with a preoperative PVR of ≥ 100 ml, 89% went into urinary retention and were started on clean intermittent catheterization (CIC). Twenty-five (57%) patients who had postoperative urinary retention went on to repeat treatment with BTN/A.

Conclusion: Patients with an increased preoperative post-void residual volume; particularly over 100 ml, should be counseled that they have a higher likelihood of requiring postoperative CIC. The retention rate of 32% is higher than that reported in recent clinical trials. The inclusion of patients with a preoperative PVR ≥ 100 ml and the fact that clinicians in this study were not influenced by being part of a clinical trial and demonstrated a lower threshold to initiate CIC contributed to the high rate of urinary retention found in this study. Patients should be counseled that they have a high likelihood of requiring postoperative CIC despite what is reported by clinical trials.

**SIMPLE CYSTECTOMIES FOR BENIGN DISEASE: RESULTS OF A 10-YEAR
RETROSPECTIVE STUDY**

David J. Osborn, M.D. Stephen Mock, M.D.* Nicholas Smith*, Catherine Harris, M.D.,* Osa Okunbor*, Haerin Lee*, Xuechao Zhang*, Michael Guan*, Melissa Kaufman, M.D. PHD*, W. Stuart Reynolds, M.D.* Roger Dmochowski, M.D.:
Nashville, TN

(Presentation to be made by Dr. Osborn)

Purpose: The simple cystectomy with urinary diversion is typically the last treatment option for patients with nonfunctioning bladders due to benign disease. Some of the most common of these diseases are spinal cord injury, spina bifida, multiple sclerosis and radiation damage to the bladder. The primary goal of a cystectomy for benign disease is to improve quality of life while minimizing patient complications. The purpose of this study was to analyze what factors contribute to a worse outcome after surgery measured by frequency of severe complications.

Materials and Methods: A retrospective review was performed of consecutive patients who underwent a cystectomy for benign disease at a single institution from 2003-2012. Parameters investigated included demographic information, comorbid medical conditions, type of surgery performed and operative and postoperative course. In order to standardize assessment of preoperative health, Charlson comorbidity index was calculated. Outcome measures included length of hospitalization, days to return of bowel function and nature of complications. The severity of complications was characterized using the Clavien-Dindo classification system. The association between postoperative complications and type of surgery, estimated blood loss, length of surgery, gender, age and surgical indication were assessed with multivariate logistic regression.

Results: A total of 139 patients underwent cystectomy for benign diseases over the 10-year study period. Mean age was 52 years (18 to 82) and 59% of the patients were women. The median follow up was 13 months (IQR 29). The most common indications for surgery were spinal cord injury (32%), radiation damage to the bladder (21%), multiple sclerosis (10%), spina bifida (7%) and chronic pain (5%). The average preoperative Charlson comorbidity index was 3. Seventy-four (53%) patients underwent supratrigonal cystectomy and the rest underwent removal of the bladder to the level of the urethra. The average length of surgery was 344 minutes and the average estimated blood loss was 476 ml. The most common complications were prolonged ileus, pyelonephritis, unplanned total parenteral nutrition, intrabdominal abscess and parastomal hernia. Seventy-nine (57%) patients had a complication classified as 2 or greater on the Clavien-Dindo scale and 36 (26%) had a complication greater than 2. This did not differ based on age, gender, surgical indication or estimated blood loss. However, after adjustment, length of surgery in minutes (OR 1.01, 95% CI 1.00 - 1.01, p 0.004) and Charlson comorbidity index (OR 1.26, 95% CI 1.03 - 1.53, p 0.024) were associated with an increased incidence of a Clavien-Dindo 2 or greater complication.

Conclusions: The complications of simple cystectomy for benign disease are comparable to those of radical cystectomy done for the indication of malignancy published in the literature. Similar to other studies examining the outcomes of a surgical procedure, length of surgery is an important variable that can affect outcome. In addition, not surprisingly Charlson comorbidity index is also correlated with a worse outcome. This study supports the statement that surgeons can use information about a patient's preoperative health to guide counseling about the risks of postoperative adverse events.

CONTRAST NEPHROPATHY: IS IT AN ISSUE IN THE OUTPATIENT SETTING?

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(Presentation to be made by Dr. Van Every)

Background: One of the adverse events associated with administration of intravenous contrast media (IVCM) is contrast-induced nephropathy (CIN), yet its incidence is poorly characterized. We investigated the incidence of CIN in patients with elevated baseline serum creatinine (SCr) after undergoing computed tomography (CT) using IVCM.

Materials and Methods: Using the electronic medical records at a community hospital, we retrospectively identified patients who had undergone CT utilizing IVCM between January and July 2000, a period prior to the routine use of pretreatment to prophylax against CIN with elevated baseline SCr who developed elevations in their SCr. We identified risk factors for the rise in SCr in these patients.

Results: One hundred ninety-three patients with a baseline SCr concentration greater than 1.5mg/dL underwent 236 CT studies utilizing IV low osmolar contrast media (LOCM). Nine of the 193 patients had a rise in SCr greater than 0.5mg/dL up to 1 month later. None of these 9 patients had contrast exposure as the only risk factor for their rise in SCr.

Conclusion: The role of IVCM in causing CIN and, thus, acute kidney injury, may be overestimated. Further study needs to be done into whether CIN is a true entity in patients receiving IVCM for routine studies with no other risk factors for kidney injury warranting the expense, risks, and inconvenience of pretreatment.

Source of Funding: None

APPOINTMENTS IN A MIDWEST TERTIARY CARE PEDIATRIC
UROLOGY CLINIC

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Hospitals and Clinics: Iowa City, IA
(Presentation to be made by Dr. Storm)

Introduction: Missed patient visits and clinic no-shows are detrimental to patient care and hospital and physician productivity. To date, there have been no studies evaluating risk factors that lead to missed sub-specialty clinic appointments. We sought to determine features that may be predictive of missed office visits.

Materials and Methods: A retrospective review was conducted using patients scheduled in the Division of Pediatric Urology at the University of Iowa between 2008-2009. The patients' demographic data, date of visit, reason for visit, distance traveled, type of insurance and gas price at the time of the visit were all analyzed. A multi-factor logistic regression model analysis was then used to examine the variables.

Results: 1315 consecutive visits from 514 patients between the years of 2008-2009 were examined. 87% of these patients were Caucasian with a mean age of 75.6 months (1-256 months). 43% of the children had private or non-federally subsidized insurance. 66% of the visits were return visits. 84% of our patients were scheduled for management of chronic conditions. Gas prices ranged from \$1.24 -\$3.51 per gallon during the study period and the mean distance traveled was 87.9 miles (2-1484 miles).

Overall, 38.7% of the clinic appointments were missed. African American children ($p=0.042$) and older patients ($p=0.001$) were less likely to show for their appointment. In addition, children with non-chronic conditions ($p=0.025$) and those with federally subsidized ($p=0.041$) and no ($p=0.005$) insurance were more likely to miss their appointment. Returning patients ($p<0.001$), children scheduled on Fridays ($p=0.043$) and patients being seen in the summer ($p=0.009$) were also more likely to not show for their appointment. Distance that the patient had to travel ($p=0.307$) and price of gas at the time of the office visit (0.738) had no impact on the patient missing their appointment.

Conclusions: There appear to be multiple factors that contribute to children showing for their scheduled pediatric urology clinic visit. Despite having patients travel great distances to be seen and there being a wide variation in gas prices in our study period, these factors surprisingly did not play a role. This data may be utilized to more effectively schedule our clinics to improve patient care and provider and hospital productivity.

RESEARCH

ABSTRACTS

**PROGRESS OF IN SITU GENE THERAPY WITH RADIOIODINE AND
THE SODIUM IODIDE SYMPORTER GENE FOR LOCALLY
RECURRENT PROSTATE CANCER FOLLOWING EXTERNAL
BEAM RADIO THERAPY**

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M.D., Michael K. O'Connor, Ph.D., Mark J. Federspiel, Ph.D., Donald J.
Tindall, Ph.D., Brian J. Davis, M.D., Ph.D. John C. Morris, M.D.:
Rochester, MN

(Presentation to be made by Dr. Wilson)

Purpose: Salvage treatments for patients failing external radiotherapy (EBRT) or prostate brachytherapy (PB) are limited. The study purpose is to test the feasibility and safety of in situ gene therapy of locally-recurrent prostate cancer by non-replicating adenovirus (Ad5)-mediated expression of the sodium-iodide symporter (NIS) gene directly injected into the prostate in patients with locally recurrent prostate cancer following EBRT or PB.

Materials and Methods: Pre-clinical animal studies were completed and confirmed the treatment concept. Human investigation was approved by the Federal Drug Administration (FDA) and Institutional Review Board (IRB). The approach includes injection of the virus via a template-guided transperineal route similar to a permanent prostate brachytherapy using fluoroscopy and trans-rectal ultrasound image guidance. Viral particles are injected in 5 mL of solution subdivided into 50 aliquots. Three days following injection, patients undergo 123I tracer dose imaging with subsequent planned 131I therapy subject to the condition that a prostate dose from 5-20 Gy can be delivered.

Results: In preclinical animal studies, SPECT/CT imaging revealed clear images of the NIS-transduced prostates. In the first five human subjects treated to the 109 to 1012 viral particle levels, no Grade 2 or greater toxicity has been observed thus far with 0.1 to greater than 3 years of follow up. Dose levels of 109 to 1011 viral particles did not demonstrate uptake sufficient to deliver a therapeutic dose of 131I, whereas both patients receiving 1012 viral particles demonstrated sufficient uptake and received 131I.

Conclusions: Intraprostatic injection of non-replicating adenovirus directly into the prostate in pre-clinical animal and initial clinical studies has been without significant adverse events. Adequate uptake by the transfected cells expressing the NIS gene has been demonstrated in vivo and meaningful doses of radiation delivered to the prostate in patients receiving 1012 injected viral particles. Further follow up and patient enrollment in the clinical trial are necessary to fully evaluate the safety of this approach as well as establish preliminary results which will aid in determining efficacy.

Source of Funding: National Cancer Institute grant charge of the light brigadeP50 91956

INFECTION-RELATED HOSPITALIZATIONS AFTER PROSTATE BIOPSY IN A STATE-WIDE QUALITY IMPROVEMENT COLLABORATIVE

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 (Presentation to be made by Dr. Womble)

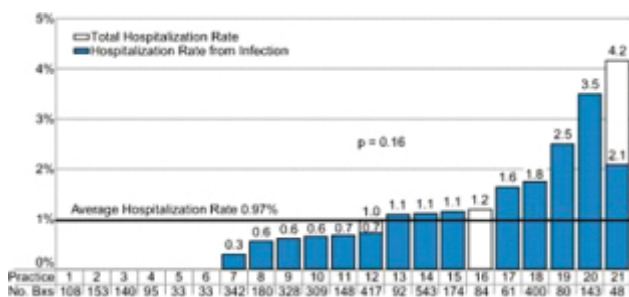
Purpose: Transrectal prostate biopsy is the cornerstone of diagnosing prostate cancer in the PSA era. However, serious post-biopsy infectious complications are reported to be increasing and a better understanding of the true incidence and microbiology of these events is needed to guide quality improvement in this area and ultimately better early detection practices.

Methods: Using data from the Michigan Urological Surgery Improvement Collaborative (MUSIC) registry, we identified all men who underwent transrectal ultrasound-guided prostate biopsy at 21 practices in Michigan from March 2012 through June 2013. Trained data abstractors recorded pertinent data, including prophylactic antibiotics and all biopsy-related hospitalizations within 30 days of the procedures. For a subset of patients, these events were validated with follow-up telephone calls and claims data. We identified all men admitted for an infectious complication and obtained the relevant culture data. We then compared the frequency of infection-related hospitalization rates across MUSIC practices, and according to receipt (or lack thereof) of antibiotic prophylaxis in concordance with best practice recommendations from the American Urological Association.

Results: The overall 30-day hospital admission rate following prostate biopsy was 0.97%, ranging from 0% to 4.2% across 21 MUSIC practices (Figure). Ninety-five percent of admissions were for infectious complications; the vast majority of cultures for these patients identified fluoroquinolone-resistant organisms. Guideline concordant antibiotics were administered in 96.3% of biopsies. Patients receiving non-compliant antibiotic regimens were significantly more likely to be hospitalized for infectious complications (3.8% vs. 0.89%, $p = 0.0026$).

Conclusions: Infection-related hospitalizations occur in approximately 1% of men undergoing prostate biopsy in Michigan. Our findings suggest that many of these events could be avoided by implementing new protocols (e.g., culture-specific or augmented antibiotic prophylaxis) that both adhere with AUA best practice recommendations and address fluoroquinolone resistance.

Source of Funding: Blue Cross Blue Shield of Michigan



PAPER #70
TARGETED ANTIMICROBIAL PROPHYLAXIS FOR TRUS PROSTATE BIOPSY

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(Presentation to be made by Dr. Cohen)

Introduction: Over 800,000 prostate biopsies are performed annually in the United States. Using fluoroquinolones for antimicrobial prophylaxis before biopsy has been shown to significantly decrease the rate of infectious complications compared to placebo. The prevalence of colonization with fluoroquinolone resistant organisms in the general population has been reported to be as high as 22%. The published rates for sepsis after trans-rectal ultrasound sound (TRUS) biopsy have been reported between 0.1% and 2.2% among patients undergoing empiric prophylaxis with fluoroquinolones.

Materials and Methods: We developed our own protocol for rectal swab culturing patients prior to TRUS BX. At the time of evaluation for TRUS biopsy, a rectal swab is taken and placed in a vial of culture medium which is infused with 10mcg of ciprofloxacin. This culture is incubated for 24 hours and then an aliquate is placed on macconkey agar also with 10mcg of cipro. This is then incubated for an additional 24hrs. At that time if there is no growth, indicating the organism is fluoroquinolone resistant, a report is generated indicating that finding. If however the culture is positive, indicating cipro resistance, then these organisms are then identified by laboratory technique and a sensitivity profile is obtained. This report then allows us to use targeted antimicrobial prophylaxis prior to the TRUS biopsy.

Results: Since the initiation of this protocol 75 patients underwent rectal swab and subsequent TRUS biopsy. 8 patients (10.6%), had ciprofloxacin resistant E. Coli and received targeted antimicrobial prophylaxis. 67 patients underwent ciprofloxacin prophylaxis. Since the initiation of our protocol, no patient has developed a UTI or sepsis post-biopsy.
Conclusions: We present this protocol for a streamlined approach to the rectal swab culture prior to TRUS biopsy.

We believe that this technique is simple and cost effective. Given the serious and sometimes catastrophic results of sepsis, we strongly advise this method as a way to prevent the morbidity that can result from one of the most frequently performed urological procedures.

Source of Funding: None

ROBOTIC ASSISTED SIMPLE PROSTATECTOMY IS EFFECTIVE FOR MANAGING SEVERE LUTS IN PATIENTS WITH LARGE PROSTATES.

CDR (Ret.) Brian K. Auge, MD, FACS, Kara Taggart, MD and Steven Brassell, MD, FACS. St. Luke's Health System, Boise, ID (Presentation to be made by Dr. Auge)

Introduction: Open simple prostatectomy is known to be safe and effective for managing severe lower urinary tracts symptoms (LUTS) or urinary retention in men with very large obstructive prostates. The robotic-assisted laparoscopic approach has been demonstrated in several small series. We sought to assess feasibility of performing robotic simple prostatectomies in the community setting.

Methods: A retrospective review of all patients undergoing robotic-assisted laparoscopic simple prostatectomy from June 2012 to November 2013 was performed. Patients identified with severe LUTS or urinary retention found to have prostate size estimated to be greater than 80cc by digital rectal exam or transrectal ultrasound and have failed maximal medical management were offered surgical therapy. Patient demographics, type of procedure, operative times, EBL and changes in Hb were recorded. Early return to normal urination was assessed.

Results: Eleven men with an average age of 72 years underwent either robotic simple retropubic (1) or suprapubic prostatectomy (10). Six men were in complete retention (2 presenting with gross hematuria), while the average AUA symptom score for the remaining 5 men was 21. Two had concomitant bladder stones and one was found to have a 5cm bladder diverticulum. Mean preop prostate size was 95 gm as estimated by DRE or TRUS volume. Average operative time was 145 minutes, with an EBL of 214cc (50-500cc). No transfusions were required despite 2 patients returning within the first week with clot retention. Continuous bladder irrigation was performed in all patients immediately postop with the exception of 1 patient early in the series, and CBI was discontinued on POD#1 in all. Catheters were maintained for 10 days. 11/11 men were voiding spontaneously upon foley removal, with PVRs less than 50cc. Average hospital stay was 3.7 days (1.9 days if the patient with bowel injury is eliminated). Complications included one small bowel injury requiring reoperation and 2 patients with clot retention (one found to have a discrete arterial bleed from the 7 o'clock position on endoscopy).

Conclusions: Robotic-assisted laparoscopic simple prostatectomy is safe, effective, and mimics the open approach with less blood loss and shorter hospital stays compared to historical series.

POSTER SESSION

ABSTRACTS

**OPEN RANDOMIZED PROSPECTIVE STUDY TO EVALUATE THE
USE OF A CONTINUOUS LOCAL ANESTHETIC INFUSION FOR PAIN
MANAGEMENT FOLLOWING PENILE PROSTHESIS PROCEDURE**

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San Antonio, TX

(Presentation to be made by Dr. Villarreal)

Purpose: Optimizing postoperative pain control remains a challenge following the insertion of the inflatable penile prosthesis. Portable local anesthetic elastomeric infusion pumps have been designed to deliver local anesthetic directly into the surgical wound. Our objective is to determine if the use of a local anesthetic elastomeric infusion pump will decrease the number of narcotic pain pills postoperatively in patients after undergoing penile prosthesis implantation.

Materials and Methods: An open, prospective, randomized, double-blind study was performed involving patients who underwent penile prosthesis implantation. After informed consent was obtained pre-operatively, twenty patients were randomized to receive continuous wound perfusion through the ON-Q pain management system (I Flow Corporation) of either 0.5% bupivacaine or 0.9% NaCl. The patients were also given a prescription for oral narcotics. Each patient recorded the number of narcotic pain pills used and pain control satisfaction for postoperative day (POD) one through seven. Reduction in the number of narcotic pain pills used was the primary end-point with reduction the amount of postoperative pain and satisfaction being secondary endpoints. Two patients were excluded from the study for improper survey completion.

Results: Eighteen patients recruited were used for data analysis. The average number of pain pills taken by the study group over the first post-operative week was 6.9 compared with an average of 20.0 in the control group. When analyzing the data, the control group consistently used more oral narcotics to control pain. However, the difference is only statistically significant ($p < 0.05$) for POD 1 through 3. The difference was no longer noted beginning on POD number 4 coinciding with the day the pain pump was removed. There was no statistical significance in subjective data of daily or overall satisfaction in the study group versus the placebo group. No adverse outcomes were noted in either group. This device has been used in over 250 prosthetic surgeries with no adverse outcome.

Conclusion: This prospective, randomized trial has shown that infusion of local anesthetic after penile prosthesis is an effective way of controlling pain with an overall decrease in the need for oral narcotics.

Source of Funding: I Flow corporation

**COMPLETELY INTRACORPOREAL ROBOTIC-ASSISTED
LAPAROSCOPIC ILEOVESICOSTOMY IS ASSOCIATED WITH
EARLIER RETURN OF BOWEL FUNCTION**

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Blake Moore, M.D.*, Lance J. Hampton, M.D.*, Adam P. Klausner, M.D.:
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(Presentation to be made by Dr. Dolat)

Purpose: Ileovesicostomy has been used as a treatment for neurogenic bladder dysfunction in individuals unwilling or unable to perform intermittent catheterization. The open technique is associated with post-operative complications including wound infection, urethral incontinence, and extended length of hospital stay (LOS). Using the technique of intracorporeal laparoscopic bowel-to-bowel anastomosis may improve post-operative recovery and complications. However, there is sparse literature describing this technique. Our goal is to report initial results for intracorporeal laparoscopic bowel-to-bowel anastomosis robotic-assisted as compared to open ileovesicostomy.

Materials and Methods: A retrospective review of fifteen open and 4 robotic ileovesicostomy procedures performed between September 2005 and April 2011 was performed. Demographic data, intraoperative/postoperative data, and follow up data were obtained. Intraoperative/postoperative parameters consisted of operative time, estimated blood loss (EBL), complications, return of bowel function, and LOS. Follow up data included continence, urodynamic studies, and length of follow up.

Results: A total 19 ileovesicostomies were performed (15 open, 4 robotic). Age, BMI, and pre-operative urodynamics were similar between groups. Bowel function returned earlier in the robotic group (9 days vs 3.8 days, $p = 0.02$). However, operative time (252 min vs 290 min, $p=0.28$), estimated blood loss (218 mL vs 131 mL, $p=0.15$), LOS (16 vs 8 days, $p=0.30$), and follow-up (38 months vs 26 months, $p=0.16$) were similar between open vs robotic groups, respectively. There were no major intraoperative complications in either group. In the robotic group, one female patient with known urethral erosion had continued urethral incontinence requiring periurethral bulking and subsequent sub-urethral sling with resolution of symptoms. One male patient had elevated residual volumes (300 ml) and cystoscopic evaluation demonstrated a small caliber vesicostomy. Due to the patient's concern about potential infection, an open conversion to ileal conduit was performed 16 months after his initial surgery.

Conclusion: The outcomes for open and robotic-assisted ileovesicostomies performed were similar. However, completely intracorporeal robotic-assisted laparoscopic ileovesicostomy may be associated with earlier return of bowel function.

Source of Funding: None

CONGENITAL PREPUBIC SINUS: A CASE REPORT

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San Diego, CA, LCDR Matthew Christman, M.D.

Department of Urology, Naval Medical Center San Diego, CA
CAPT Romeo Ignacio, M.D. Pediatric Surgery, Naval Medical Center San
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We present a 15month old girl with a 9 month history of purulent drainage from an area on the mons pubis. It was initially diagnosed as an abscess and she was taken to the operating room for excision when it did not resolve with conservative measures. Histopathology showed a sinus tract with benign squamous lining, confirming diagnosis of congenital prepubic sinus. This is a rare occurrence and certain etiology remains unknown and debated

LAPAROSCOPIC REPAIR OF A SPONTANEOUS INTRAPERITONEAL BLADDER RUPTURE IN A HEALTHY MALE

Eric Biewenga, MD, Chad R. Pusateri, DO, Jon Montgomery, DO, James L'Esperance, MD, Chong Choe, MD: Naval Medical Center San Diego, San Diego, CA

Introduction and Objectives: While bladder rupture is common in the setting of trauma and iatrogenic injury, spontaneous bladder rupture is a much rarer occurrence. There are reports of spontaneous intraperitoneal bladder rupture, typically in older adults, in the setting of current or prior neoplasm, prior bladder augmentation, or a history of radiation therapy. However, there is a paucity of reports of spontaneous bladder rupture in young healthy adults.

Materials and Methods: We report a case of spontaneous intraperitoneal bladder rupture in a young healthy male. The diagnosis was made after CT cystogram showed extravasation of contrast into the peritoneal cavity. Intra-operative details of the reconstructive procedure will be presented along with post-operative outcomes.

Results: Diagnostic laparoscopy was performed revealing a 2cm transmural bladder dome defect. The defect was then excised and repaired laparoscopically. Pathologic findings revealed transmural inflammation and focal hemorrhagic deposits with a lack of evidence to suggest infection, neoplasm, or an underlying malignancy. Follow up cystoscopy revealed the well-healed area where the defect had been repaired, but no other abnormal findings were discovered.

Conclusions: Spontaneous bladder rupture is a rare occurrence, but must be included in the differential diagnosis for the acute abdomen, especially when urinary symptoms are present. Laparoscopy proved to be useful in diagnosis and treatment of this condition.

The views and opinions expressed herein are those of the authors and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense, or the U.S. Government

CASE SERIES OF PRIMARY PRIMITIVE NEUROECTODERMAL TUMORS
OF THE KIDNEY

Maj. William Hilton, MC, USAF; CAPT Timothy Donahue, MC, USN; Ian Vela, MD, PhD; Daniel Casella, MD; Timothy Lyon, MD; Ari Hakimi, MD; Mary L. Keohan, MD; Paul Russo, MD; Tatum Tarin, MD: Memorial Sloan-Kettering Cancer Center, New York, NY, and University of Pittsburgh Medical Center (Presentation to be made by Dr. Hilton)

Introduction and Objectives: Primitive neuroectodermal tumor (PNET) of the kidney is a rare disease often characterized by a young age of onset and aggressive clinical course. Because there are few case series and the optimal management is not well defined, we reviewed the combined experience of two large tertiary centers in the diagnosis and management of patients with renal PNET.

Methods: Following IRB approval at the University of Pittsburgh and Memorial Sloan-Kettering Cancer Center, we conducted a retrospective review of patients with surgically managed renal PNET treated from 1998-2012.

Results: There were 5 female and 3 male patients diagnosed at a median of 38 years (21 – 71 years). All patients had symptoms at presentation including abdominal pain (87.5%), anorexia (67.5%), and hematuria (50%). An abdominal mass was palpable in 50%. At presentation, 2 patients had metastatic disease, 3 had an IVC thrombus, and 2 had a renal vein thrombus. One patient had a history of a spinal PNET treated six years prior. The average radiographic size of the renal masses was 13.5 cm (8.3-23 cm) and 6 were left sided. All patients underwent radical nephrectomy and 50% had concurrent resections of the pancreas (3), spleen (2), colon (1), diaphragm (1), and/or psoas (1). Lymph nodes were positive in 25%, negative in 12.5%, and not reported in 67.5%. Three patients underwent percutaneous biopsy and the diagnosis of PNET was made in all 3 cases. One patient who had preoperative chemotherapy had complete tumor necrosis on final pathology. FISH analysis demonstrated EWS-FLI-1 and EWSR1 rearrangements in 2 and 3 patients, respectively. Four patients received chemotherapy prior to and four patients after surgery based on guidelines for the Ewing's family of tumors. Radiation was performed for adjuvant (n=2) and palliative purposes (n=1). Median follow up was 27 months (2.7 – 175 months). Two patients died of disease at a median of 22.5 months after diagnosis. Kaplan Meier estimates for 3 and 5 year overall survival were 62.5%, respectively.

Conclusions: Renal PNET is a rare tumor that should be considered in younger patients presenting with a large renal mass associated with an IVC thrombus. The diagnosis can be made by percutaneous biopsy but more commonly it is established after nephrectomy. Treatment is multi-modal and chemotherapy is based on the Ewing's family of tumors guidelines. Patients who present with metastatic disease have a poor overall prognosis (Fig 1).

THE ROLE OF MRI-GUIDED PROSTATE BIOPSIES IN DIFFICULT TO DETECT PROSTATE CANCER

Shaoqing Zhou, M.D., MaryEllen T. Dolat, M.D., Jinzing Yu, M.D., B. Mayer Grob, M.D.

(Presentation to be made by Dr. Dolat)

Purpose: Patients who have a persistently elevated PSA and have previously undergone repeat transrectal ultrasound (TRUS) guided prostate biopsies with negative results represent a diagnostic dilemma. Magnetic resonance imaging (MRI) guided prostate biopsies and TRUS-guided saturation biopsies can both be utilized when confronted with this problem. We retrospectively reviewed both the total cancer detection rate and rate of detecting clinically significant cancers for each of these modalities.

Materials and Methods: A total of 38 patients with an elevated PSA and previously negative TRUS-guided 10 or 12-core prostate biopsies were reviewed. In this group, 24 consecutive patients with an average of 2.6 previous TRUS biopsies underwent multi-parametric MRI with dynamic infusion with subsequent MRI-guided biopsy. The other 14 patients with an average of 2.2 prior TRUS biopsies underwent TRUS-guided 20 core saturation biopsy of the prostate that included transition zone cores.

Results: Fourteen out of twenty-four (58.3%) patients in the MRI group were found to have prostate cancer compared to five out of fourteen (36%) in the saturation biopsy group (p-value = 0.19). Clinically significant cancer as determined by the Epstein criteria was found in twelve out of twenty-four patients in the MRI group compared with one out of fourteen in the saturation group (p-value = 0.024).

Conclusions: Compared to TRUS-guided saturation biopsy, MRI-guided prostate biopsy achieved higher overall cancer detection rates as well as found more clinically significant cancers. MRI-guided prostate biopsy may have a role in diagnosis of difficult to detect prostate cancers in this patient population.

Source of Funding: None

PAPER #85

**XANTHOGRANULOMATOUS PYELONEPHRITIS PRESENTING AS
LOCAL RECURRENCE OF RENAL CELL CARCINOMA AT
BOLSTER SITE**

Justin J. Nork, DO, James O. L'Esperance, MD: San Diego, CA
(Presentation to be made by Dr. Nork)

Xanthogranulomatous pyelonephritis (XGP) is a chronic destructive process of the renal parenchyma associated with chronic obstruction and infection. XGP has been called the "great imitator" due to its ability to resemble the clinical presentation, imaging characteristics and appearance of renal cell carcinoma.

We report the case of a 61 year old male who underwent a robotic-assisted laparoscopic partial right nephrectomy for a 4 cm renal mass. Renorrhaphy was completed with the use of a Surgicel bolster. Pathology revealed a pT1aNx Fuhrman grade 3 clear cell carcinoma. Eighteen months post-operatively the patient re-presented with increased right flank pain and abdominal fullness. CT scan demonstrated increased prominence and enhancement at the previous resection site concerning for local recurrence. Patient underwent completion right nephrectomy with subsequent histopathological finding of focal XGP at the bolster site and chronic pyelonephritis of the remaining parenchyma.

Source of Funding: None

PAPER #86
GENITOURINARY TUBERCULOSIS PRESENTING AS A
SCROTAL ABCESS

David L. Griffin, MD, Ethan I. Franke, MD: San Diego, CA
(Presentation to be made by Dr. Griffin)

Tuberculosis (TB) is a highly transmissible infection caused by *Mycobacterium tuberculosis*. The overwhelming majority of cases of TB are pulmonary in nature but the infection can present with other organ systems involved. While not particularly common in the general population in the United States, higher incidences are noted in certain populations.

We report the case of an otherwise healthy 31 year old male who was admitted for epididymo-orchitis and initially treated conservatively with intravenous antibiotics. The patient did not improve and was taken to the operating room for an incision and drainage of a scrotal abscess; the patient tolerated the procedure well and intraoperative cultures were sent. The intraoperative cultures were notable for 4+ growth of acid-fast bacilli. The patient was started on isoniazid, rifampin, ethambutol and pyrazinamide and continues to undergo treatment.

Source of Funding: None

**BLUNT FORCE TRAUMA AS A RARE MECHANISM FOR CHYLURIA:
A CASE REPORT.**

Kevin J Rycyna MD, Louis D'Agostino MD: Pittsburgh, PA
(Presentation to be made by Dr. Rycyna)

Purpose: Chyluria is a rare condition that occurs due to an abnormal communication between lymphatics and the renal collecting system. This is most often due to a late manifestation of filariasis, but has also been reported after partial nephrectomy, radiofrequency ablation of renal tumors, and chronic infections such as tuberculosis. We report a rare case of chyluria following blunt force trauma and its subsequent successful management.

Results: A 48 year old man was initially seen in consultation by the urology service for acute urinary retention. His past medical history was significant for being involved in a motor vehicle accident approximately 4 weeks prior. During that event he had sustained an L1 compression fracture, which was managed conservatively. Upon this presentation and placement of a foley, he was noted to have thick, milky white fluid draining from the bladder. Urinalysis demonstrated significant proteinuria and urine culture was negative for bacteria and fungus. After persistent drainage of the milky fluid over the next three days, he was taken to the OR for cystoscopy, at which point milky fluid was seen coming only from the right ureteral orifice. A right retrograde pyelogram demonstrated a lymphorenal fistula, however ureteroscopy with nephroscopy could not localize the fistulous connection. Therefore a ureteral stent was placed and the procedure was terminated. In the ensuing post-op period, he was given a medium chain fatty acid diet and was observed. Active resolution of the lymphorenal fistula was confirmed over the first post-op week with the urine protein level decreasing from an initial volume of over 8 grams per day with concomitant fat bodies, down to 500 mg of protein a day and no fat bodies. He was discharged home and continued with stent drainage of the right kidney for a total of 10 weeks. The stent was removed after that period of time and he had no recurrence of his chyluria after 6 months.

Conclusion: Chyluria is an uncommon clinical problem outside of the tropics. We present a case of blunt force trauma leading to the formation of a lymphorenal fistula. This was successfully managed via conservative endoscopic and dietary treatment.

Source of Funding: None

TRENDS AND PREDICTORS OF URETERAL STENTING IN
LAPAROSCOPIC COLORECTAL SURGERY

J J Fantony, MD*, P J Speicher, MD*, Z G Goldsmith, MD PhD*, R S Turley, MD*, D P Nussbaum, MD*, C R Mantyh, MD*, A C Peterson, MD: Durham, NC (Presentation to be made by Dr. Joseph Fantony)

Purpose: The laparoscopic approach has gained acceptance as a safe and potentially superior technique in many colorectal procedures. With this rise in popularity has come renewed concern for iatrogenic ureteral injuries, leading to increased interest in ureteral stenting (US). Few studies have examined the current status of, or indications for, prophylactic ureteral stent use in laparoscopic colorectal surgery. We utilized the National Surgical Quality Improvement Program (NSQIP) database, a national database that prospectively tracks participant demographics, procedures, and outcomes in order to examine current trends, predictors of stent use, and perioperative outcomes in patients undergoing major colorectal operations.

Methods: NSQIP participant user files were used to identify patients undergoing all laparoscopic segmental colectomy (SC), low anterior resection (LAR), or proctectomy (APR/TPC) within the database. Trends in stent use were assessed across procedure types. To estimate the predictors of stent utilization, a forward-stepwise logistic regression model was used. We reviewed the data set for operative time, length of stay, and incidence of postoperative urinary tract infections. A 3:1 nearest-neighbor propensity match with subsequent multivariable adjustment was used to estimate differences in morbidity and mortality between patients with versus without ureteral stents.

Results: 42,311 laparoscopic colorectal surgery cases were identified, of which 1,846 (4.4%) utilized ureteral stents. US was used more often during LAR and APR compared to SC. Usage has increased over time; in 2011 approximately 4.5% of these procedures utilized US compared to 1% in 2005. Predictors of stent utilization included diverticular disease, need for radical resection (versus SC) and recent radiotherapy. US was associated with a 45-minute adjusted increase in median operative time. After adjustment, US was associated with a slightly longer postoperative length of stay, approximately 0.23 days ($p < 0.001$), but no statistically significant differences in other secondary endpoints of morbidity or mortality.

Conclusions: We describe the clinical predictors of ureteral stent usage in this patient population, and report that while stenting adds to operative time, it is not associated with significantly increased morbidity or mortality after adjusting for diagnosis and comorbidities. Given the inherent limitations of NSQIP, focused institutional studies are necessary in the future to address the utility of ureteral stents in the identification and possible prevention of iatrogenic injury.

HIGH PATIENT SATISFACTION OF INFLATABLE PENILE PROSTHESIS INSERTION WITH SYNCHRONOUS PENILE PLICATION FOR CORRECTION OF ERECTILE DYSFUNCTION AND PEYRONIE'S DISEASE

Timothy J. Tausch, MD, Paul H. Chung, MD*, Lee C. Zhao, MD*, Jay Simhan, MD*, J. Francis Scott, BA*, Allen F. Morey, MD: Dallas, TX
(Presentation to be made by Dr. Tausch)

Objectives: We present clinical and patient-reported outcomes of inflatable penile prosthesis (IPP) placement with synchronous penile plication (PP) for correction of Peyronie's disease and erectile dysfunction.

Methods: Patients receiving IPP placement with synchronous PP were reviewed. After induction of an artificial erection through saline intracorporeal injection, PP was performed through a penoscrotal incision retracted distally along the penile shaft as needed for correction. IPP placement was then conducted through the same incision. A qualitative survey assessing penile curvature, adequacy for intercourse and overall patient satisfaction after surgery was administered.

Results: 18 patients (11 dorsal curvature; 2 lateral; 5 biplanar) with a mean age of 62.6 yrs underwent IPP with synchronous PP from 2010 to 2013. Mean pre-op curvature was 39 degrees corrected to <5 degrees after PP. A median of 4 sutures (range 3-6) were used for PP with each suture providing a mean correction of 8 degrees. No patient suffered postoperative complications and all patients were discharged home on post-op day one. At an average 10.8 months of follow-up, 13/14 (93%) of patients reported no residual curvature, erections adequate for sexual intercourse and an improved overall condition. One patient (7%) who underwent a complex biplanar repair reported minor residual curvature. No patient reported continued pain or required release of plication sutures.

Conclusion: IPP placement with synchronous PP is a reliable option for correction of erectile dysfunction and Peyronie's disease.

Source of Funding: None

PAPER #90
POSTOPERATIVE PAIN OUTCOMES AFTER TRANSVAGINAL MESH
REVISION

Jill Danford, M.D.*, David J. Osborn, M.D., Stephen Mock, M.D.* Xuechao Zhang*,
Vanessa Buie*, Daniel Biller*, M.D., Roger R. Dmochowski, M.D.: Nashville, TN
(Presentation to be made by Dr. Osborn)

Purpose: Pelvic surgery divisions of tertiary care centers are seeing increasing numbers of patients with previous vaginal mesh placement for pelvic organ prolapse or urinary incontinence who desire mesh removal. Common complaints among these patients are dyspareunia, pelvic pain and bladder pain. While the current literature discusses mesh complications including erosion, exposure, infection and pain as well as suggesting different techniques of removing mesh, there is little literature regarding pain outcomes after surgical removal or revision. The purpose of this study is to determine if surgical removal or revision of vaginal mesh improves patients' subjective complaints of pelvic pain associated with original placement of mesh.

Methods: After obtaining Institutional Review Board approval from the Vanderbilt University Medical Center IRB, a retrospective review of electronic medical records of female patients who underwent excision or revision of vaginal mesh in both Urology and Gynecology Departments at Vanderbilt University from January 2000 to August 2012 was performed. Patients were identified using associated CPT codes for mesh removal or revision and urethrolisis including patients who had previous sling procedures and/or vaginally placed mesh. Patient age, relevant medical history including menopause status, previous hysterectomy, smoking status, and presence of diabetes, fibromyalgia, interstitial cystitis and chronic pelvic pain were obtained. Patients' pre-operative and post-operative pain complaints at most recent post-operative visit were assessed. Patients were included in the study if their pain began after their original mesh surgery and the pain appeared to be related to the surgery.

Results: Of the 481 patients who underwent surgery for mesh revision, removal or urethrolisis, 229 patients met our inclusion criteria. Mean age was 54 years old. One hundred sixty nine patients (73%) reported that their pain either improved or resolved, 19 (8%) reported pain worsened and 45 (19%) reported that pain remained unchanged after surgery. Prior history of chronic pelvic pain was associated with increased risk of failure of the procedure to relieve pain (OR 0.289, 95% CI 0.126 – 0.659 p 0.003). Of the 131 patients who had mesh perforation or exposure, 103 had exposure in the vagina, 14 perforation into the bladder and 14 perforation into the urethra. This was not associated with worse outcome in terms of pain relief. Median follow-up was 12.4 months (IQR 13).

Conclusions: Excision or revision of vaginal mesh appears to be effective in improving patients' pain symptoms the majority of the time. Patients with a history of chronic pelvic pain are at an increased risk of no improvement or of worsening of their pain. Mesh erosion into vagina, bladder or urethra is not associated with a worse outcome.

Source of Funding: None

PAPER #91

THE MANAGEMENT OF BULBAR URETHRAL STRICTURE DISEASE BEFORE REFERRAL FOR DEFINITIVE REPAIR: HAVE OUR PRACTICE PATTERNS CHANGED?

Michael A. Granieri, MD*, George D. Webster, MBBS* Andrew C. Peterson, MD: Durham, NC
(Presentation to be made by Dr. Peterson)

Purpose: Currently no published guidelines exist for the management of bulbar urethral strictures. Treatment options range from dilation, to endoscopic repair, to definitive surgical repair (urethroplasty). Prior studies have argued for urethroplasty after a single failed endoscopic attempt for short (<2cm) bulbar urethral strictures. We aim to evaluate whether the number of procedures prior to urethroplasty for patients referred our institution has changed since 1996.

Materials and Methods: We performed an IRB approved retrospective review of the Duke Urethroplasty Database. We recorded all patient demographics, stricture related information, and all procedures performed for bulbar urethral stricture disease prior to initial presentation at our institution. Included procedures were: none, Urolume stent, supra-pubic tube placement, prior urethroplasty, self-calibration, laser urethrotomy, direct visual urethrotomy (DVIU), and dilation of urethral stricture. Chi-squared test were used to compare differences between groups when stratified by stricture length.

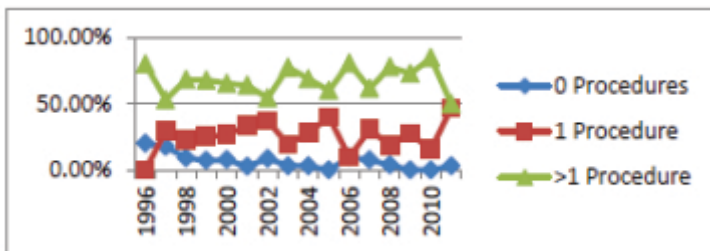
Results: We identified 440 men who underwent urethroplasty by two surgeons (GDW, ACP) for bulbar urethral stricture disease from January 1996 to September 2011. Table 1 shows there was no statistically significant difference between numbers of prior procedures when stratified by stricture length. 265 (60%) men had a prior DVIU, while 78 (30%) of these men had multiple DVIUs. 228 (52%) men had a prior dilation and 178 (78%) of these men had multiple dilations. The remaining procedures counts are: SP tube for retention (70, 16%), prior urethroplasty (67, 15%), self-calibration (42, 9.5%), laser urethrotomy (8, 1.8%). 22 patients (5%) had no procedures prior to referral. Figure 1 demonstrates that since 1996 there has been no appreciable change in number of procedures for bulbar urethral stricture disease prior to referral.

Conclusions: Our institution has not seen a measureable change in practice patterns prior to referral since 1996. This is important as efficient, cost-effective care is stressed now more than ever. It remains to be seen if formal guidelines would impact how urologists manage bulbar urethral stricture disease prior to referral.

Table 1

	Age	0 Procedures	1 Procedure	>1 Procedure
All Patients (n=440)	43.02	5.68%(n=25)	27.72%(n=122)	66.60%(293)
Stricture Length =2cm(N=328)	42.75	4.87%(n=16)	28.97%(n=95)	66.16% (n=217)
Stricture Length >2cm(N=112)	43.73	8.03%(n=9)	24%(n=27)	67.86%(n=76)

Figure 1: Number of Procedures Prior to Urethroplasty



PLACEMENT OF INFLATABLE PENILE PROSTHESIS RESERVOIRS

Timothy J. Tausch, MD, J. Francis Scott, BA*, Jay Simhan, MD*, Allen F. Morey, MD: Dallas, TX
(Presentation to be made by Dr. Tausch)

Objective: High submuscular (HSM) placement of inflatable penile prosthesis (IPP) reservoirs has become standard practice at our institution. We present clinical and patient satisfaction data of a large consecutive series of patients who underwent HSM placement of IPP reservoirs.

Methods: Patients who underwent IPP placement between 2011 and 2013 were reviewed. All patients underwent insertion of either the AMS 700 CX/LGX or Coloplast Titan CL implant through a transscrotal incision. Patient and reservoir palpability were prospectively evaluated by self-assessment and surgeon examination. Statistical analysis examining clinical and morphometric factors of patient responses was performed.

Results: Of the first 99 patients who underwent HSM placement of the reservoir, survey and follow-up data was available for 76. Mean reservoir volume (58 ± 17 cc) for patients undergoing placement of the Coloplast Titan CL and the AMS 700 CX/LGX was 68cc and 55cc, respectively ($p=0.002$). A majority (64/76, 84.2%) of reservoirs were not palpable by patients and 72/76 (94.7%) reported overall satisfaction with their IPP. Similarly, reservoirs were palpable by surgeon physical examination in only 5/76 (6.6%) of cases. Only 2/76 (2.6%) reported bothersome symptoms related to the reservoir. We had 2/99 (2%) reservoir-associated revisions early in our experience. Patient BMI, reservoir manufacturer, and filled volume had no relationship to patient satisfaction or device palpability.

Conclusions: Men undergoing HSM placement of IPP demonstrate high satisfaction rates comparable to previously published series of IPPs with traditional reservoir placement.

Source of Funding: None

YOUTH VARICOCELE AND SEMEN ANALYSIS: A META-ANALYSIS

Justin J. Nork, DO, Jonathan H. Berger, MD, Matthew S. Christman, MD:
San Diego, CA

(Presentation to be made by Dr. Nork)

Purpose: Youth varicoceles are associated with testicular hypotrophy and abnormal spermatogenesis. Testicular hypotrophy and ultrasound have been used as a surrogate of semen analysis to determine the effect of varicocele on spermatogenesis. Semen analysis is a routine aspect of adult evaluations, but perceived difficulty in obtaining semen analysis from youths has resulted in a relative paucity of studies of semen analysis outcomes in this cohort. We hypothesized that youth varicocele would be associated with adverse semen outcomes.

Methods: A search of PubMed, Medline and the Cochrane Library was completed covering 1 JAN 1971 through 8 OCT 2013 including the terms: varicocele, youth, adolescent. English language studies were screened for those assessing semen analysis and including youths with clinical varicocele and a control group. Studies were excluded if they did not contain semen parameters of interest (semen density or sperm motility) or if the presented data was not amenable to meta-analysis (i.e., presented in graphical form only or as medians/ranges). In cases of duplicated cohorts, only one study was selected. The included studies were independently reviewed, analyzed for bias and included in a meta-analysis. A random effects model was used to calculate weighted mean difference (WMD) of semen density, semen volume, sperm morphology and sperm motility. Heterogeneity was calculated. Bias was assessed with funnel plots and with Egger's test for small study effects.

Results: Initial literature search discovered 1180 potentially relevant articles. Fifteen remaining articles met screening criteria. Ten studies with a total of 357 varicocele and 427 control subjects were included. Semen density, sperm motility and sperm morphology were significantly decreased when associated with a varicocele, with a WMD (95% [CI]; p-value; I^2) of $-24.03 \times 10^6/\text{mL}$ ($[-39.47, -8.58]$; $p=0.002$; $I^2=82.1\%$), -7.49% ($[-12.32, -2.67]$; $p=0.002$; $I^2=81.1\%$) and -1.70% ($[-2.39, -1.10]$; $p<0.0001$; $I^2=0\%$) respectively. There was no statistical difference in semen volume ($p=0.360$). No small-study effect (i.e., no significant bias) was detected for density ($p=0.093$) or for motility ($p=0.329$).

Conclusion: Summary of the current published data suggests that youth varicocele is associated with decrease of semen density, sperm motility and sperm morphology while semen volume is unaffected.

Source of Funding: None

EASTER EGG HUNT: A CASE PRESENTATION

Patrick L. Scarborough, MD, Suzanne Gudeman, MD,
James O. L'Esperance, MD
(Presentation to be made by Dr. Scarborough)

Introduction: Scrotal or testicular trauma with abnormal imaging can sometimes be a challenging clinical situation. Our case is of a 38 year old man who suffered scrotal trauma in the form of a paintball shot to the left testicle. Ultrasound showed an intratesticular lesion without disruption of the tunica albuginea. While the lesion initially had the appearance of a testicular tumor, it was presumed to be an intratesticular hematoma and followed by serial ultrasound.

Case Presentation: 38 yo male participated in an Easter Egg Hunt at a local paintball facility. The event involved "victims" trying to pick up Easter Eggs while being shot at with paintballs. Not aware of the nature of the event, the patient did not wear scrotal protection. He received numerous paintball shots to his groin and scrotum and presented to the ED with pain, minimal swelling and bruising. Scrotal ultrasound showed what appeared to be an intratesticular lesion, however in the setting of the trauma, decision was made to follow clinically. The patient's pain, swelling and bruising resolved over a few days. The lesion was seen on serial ultrasounds over a period of 4 weeks, but was noted to be resolving. Tumor markers were drawn at the initial time of the incident and were negative.

Discussion: Scrotal trauma is often managed initially with scrotal ultrasound. Occasionally the incidental finding of a tumor can be found. However, in the setting of trauma, it can sometimes be difficult to discern between a hematoma and a malignant tumor.

Conclusions: Management of a testicular lesion in the setting of trauma can be a difficult problem. Scrotal ultrasound can sometimes show findings concerning for a tumor which can be difficult to distinguish from a hematoma. The clinical history as well as close follow up and repeat imaging are warranted if suspicion for a malignancy is present.

Source of Funding: None

PAPER #95

A DA VINCI S TO SI CURRICULUM ON A 3D VR ROBOTIC SURGICAL SIMULATOR MAY BE EFFICIENTLY EMPLOYED TO FACILITATE SURGEON TRANSITION

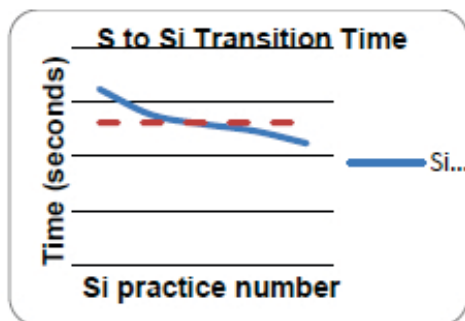
CPT Ryan W. Speir, MD, CPT Matthew Banti, MD, LTC Timothy C. Brand, MD
(Presentation to be made by Dr. Speir)

Introduction and Objectives: As robotic surgical technology evolves to new hardware, it is imperative that surgeons make the transition as well. Ideally, this transition occurs in a simulation setting. With the introduction of the da Vinci Si system (Intuitive Surgical, Sunnyvale, CA), surgeons were introduced to new finger clutching and new pedal configuration. We designed a study to evaluate a novel curriculum for the transition of use from the da Vinci S system to the da Vinci Si system by means of the dV Trainer 3D VR robotic simulator (Mimic Technologies, Seattle, WA). The aim of this study is to create and validate an efficient transition curriculum from the S to the Si platform.

Methods: We had 10 subjects complete the Ring Walk Level 3 task using the Mimic dv trainer S platform 5 times for benchmarking purposes. Our curriculum began with the utilization of the commercially available Si orientation training module available on the dV Trainer software, followed immediately by completion of Ring Walk level 3 using the Si platform 5 times. The task, Ring Walk 3, relies heavily on expertise with movement of the camera, instrument clutching and use of the fourth arm, all of which are features which differ between the S and Si platforms. Data collection included recorded metrics of performance to include time to completion, economy of motion, time instruments are out of view, instrument collisions and master workspace range.

Results: Our benchmark time of 133 seconds (SD 33.04 seconds) for Ring Walk 3 was set using mean averages of the 3,4,5 trials on the S platform. Our subjects took an average of 2 trials using Si platform to achieve the set benchmark (138 seconds, SD 41.69). When the junior and senior level groups were compared, no significant differences were found. The average time to completion of the entire curriculum from the orientation module to completion was 20 minutes.

Conclusions: In our curriculum an instructional module and a single complex task was used in order to guide a surgeon through the new features of the Si surgical platform. We demonstrated predictive validity in our curriculum in that after completing the tutorial, it takes a minimum of 2 practice runs to reach the same level of proficiency when compared to the S platform. We feel this curriculum could be efficiently utilized at facilities where the new robot is introduced.



PAPER #96
EFFECTIVENESS OF 40MG STARTING DOSE OF FORTESTA®
TESTOSTERONE 2% GEL AMONG HYPOGONADAL MEN

TC Allemang, RC Walters

Background: Hypogonadism is being identified more commonly since the advent of clinically practical testosterone supplementation. Symptoms may remain subclinical or present as reduced bone density, decreased lean body mass, elevated BMI, reduced sexual interest, and diminished erectile quality, fatigue or obstructive sleep apnea. All of which may have affects on service member physical and mental readiness, and veterans or dependents preventive health measures. FORTESTA® is a 2% gel testosterone supplementation that recently became the DOD formulary agent for hypogonadism. This study is a retrospective review of hypogonadal men being initiated or changed to FORTESTA® 2% gel.

Methods: Records were reviewed of hypogonadal men initiating FORTESTA® as their first testosterone replacement therapy or after switching from an alternative therapy. Of 24 hypogonadal men, total and free testosterone were measured before and after initiating FORTESTA® 2% gel. Additional patient demographics were reviewed to examine the predictability of responders and non-responders.

Results: Of the 24 hypogonadal men, 8% (n=2) had a meaningful rise in testosterone to goal range of > 500ng/dL at the recommended starting dose of 40mg daily. Another 33% (n=8) were found to non-responders despite maximum dosing of 70mg daily.

Conclusion: Testosterone replacement therapy with FORTESTA® in hypogonadal men has marginal efficacy at an initiation dose of 40mg daily. The majority of men would benefit from higher initiation dosing (>40mg daily) to achieve more rapid therapeutic levels. Similar to other gel base testosterone therapies, FORTESTA® may not achieve the desired testosterone levels in all men.

2014 SGSU Meeting, San Diego

Understanding How New Biomarkers

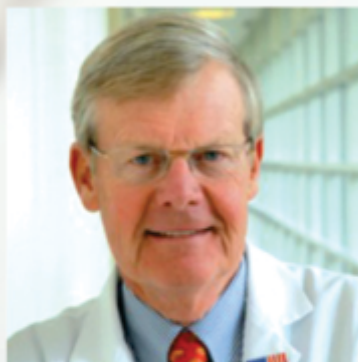
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