68th ANNUAL JAMES C. KIMBROUGH UROLOGICAL SEMINAR

2022 PROGRAM & ABSTRACT BOOK

January 26-30, 2022
Westin Mission Hills
Rancho Mirage, California

Society of Government Service Urologists
2022
PROGRAM BOOK

www.govurology.org

Scientific Program Directors:
Dr. Justin DeGrado &
Dr. Jeffrey Jones

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.
Dear SGSU Members,

Welcome to Rancho Mirage, California and the 68th Annual Kimbrough Seminar. It is a distinct honor to serve as the President of the Society of Government Service Urologists. Dr. Jeffrey Jones and Dr. Justin DeGrado have put together an outstanding academic and social program, and the DeSantis Management Group continues to provide exceptional administrative leadership and support. This should be a fabulous meeting. As the field of Urology, military medicine, and VA medicine evolve, the Kimbrough Seminar will likewise change with the times. The meeting remains a foundation for Urologists in the service of our government, an excellent forum for education and training, and a wonderful opportunity to socialize and network with one another. The leadership and dedication of our active duty, VA and retired membership ensures that the wonderful tradition of the Kimbrough meetings will continue to support the mission and camaraderie that is unique to military and VA urology. Enjoy the meeting and your time in the Rancho Mirage / Palm Springs area. I look forward to seeing you all in person.

With Best Regards,

COL Robert Dean, MC, USA (Ret.)
Dear SGSU Members,

A warm welcome all to the 68th Annual Society of Government Service Urologists, James C. Kimbrough Urological Seminar in Rancho Mirage, California. We have an exciting and robust academic program planned while maintaining our important SGSU traditions. We will have three full meeting days and again Sunday is dedicated to the Mock Oral Boards, as well as a new session on interesting cases, tips and tricks of the trade for a total of 20.5 hours of CME.

Our Scientific Program provides every resident and staff the opportunity to present original 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.

In addition to a power-packed scientific program, we are planning a number of exciting social activities including our Wednesday evening Welcome Reception, on Friday evening, will feature the entertaining and traditional GU Bowl followed by 80’s Night with a live band. Saturday late afternoon will feature our Poster Session with a Reception and Awards Ceremony. Enjoy Thursday and Saturday nights to enjoy the Palm Springs/Palm Desert area.

We look forward, as always, to renewing old friendships and making new ones.

Best Regards,

CDR Justin DeGrado, MC, USN
Naval Medical Center San Diego
Jeffrey Jones, MD
USNR / MEDVAMC / Baylor College of Medicine
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGSU Leadership</td>
<td>1</td>
</tr>
<tr>
<td>USAV Leadership</td>
<td>3</td>
</tr>
<tr>
<td>Awards</td>
<td>4</td>
</tr>
<tr>
<td>Previous Meetings</td>
<td>15</td>
</tr>
<tr>
<td>General Information</td>
<td>21</td>
</tr>
<tr>
<td>Continuing Medical Education Credits</td>
<td>22</td>
</tr>
<tr>
<td>Program-At-A-Glance</td>
<td>24</td>
</tr>
<tr>
<td>Invited Speakers</td>
<td>27</td>
</tr>
<tr>
<td>Index of Participants</td>
<td>28</td>
</tr>
<tr>
<td>Exhibitors, Schedule &amp; Supporters</td>
<td>30</td>
</tr>
<tr>
<td>Wednesday Scientific Program</td>
<td>33</td>
</tr>
<tr>
<td>Thursday Scientific Program</td>
<td>34</td>
</tr>
<tr>
<td>Friday Scientific Program</td>
<td>42</td>
</tr>
<tr>
<td>Saturday Scientific Program</td>
<td>49</td>
</tr>
<tr>
<td>Sunday Scientific Program</td>
<td>58</td>
</tr>
<tr>
<td>Abstracts</td>
<td>64</td>
</tr>
</tbody>
</table>
SGSU LEADERSHIP

President
Robert C. Dean, MD
GW Medical Faculty Assoc., Washington, DC

Treasurer
Joseph Y. Clark, MD
Penn State Hershey Medical Center, Hershey, PA

Secretary
Harold (Hal) A. Frazier, MD
George Washington University, Washington, DC

Parliamentarian/Historian
Thomas Rozanski, MD
UT Health, San Antonio, TX

Retired Representative
Timothy Brand, MD
Pensacola, FL

VA Representative
Muta Issa, MD, MBA
Emory Univ. School of Med., Atlanta VA Med. Ctr.

Member-at-Large
Stacey G. Koff, MD
Kensington, MD

--------Liaison Advisors--------

Kimbrough Seminar Course Directors, 2021/2022
Jeffrey Jones, MD
Baylor College of Medicine, ME DeBakey VAMC, Houston, TX
Justin DeGrado, MD
Naval Medical Center San Diego

Past Kimbrough Seminar Course Directors, 2020
Christopher Allam, DO
George Kallingal, MD
Brooke Army Medical Center, Fort Sam Houston, TX

Kimbrough Seminar Course Directors, 2023
RJ Caras, MD / Ryan Speir, MD
Madigan Army Medical Center, WA

Army Urology Liaison
Joseph Sterbis, MD
Tripler Army Med. Center, Honolulu, HI
SGSU LEADERSHIP

Army Member-At-Large
Andrew Medendorp, MD
Tripler Army Medical Center, Honolulu, HI

Navy Urology Liaison
Erik T. Grossgold, MD
Naval Medical Center San Diego

Navy Member-At-Large, Active Duty
Eric Biewenga, MD
Naval Medical Center San Diego

Air Force Urology Liaison
Christopher Allam, DO
Brooke Army Medical Center

Air Force Member-At-Large
Necia Pope, MD
Yorktown, VA

Military Resident Representatives
Charles Rhinehart, MD, Paul Campbell, MD
Naval Medical Center San Diego

VA Member-At-Large
Alison M. Christie, MD
James H. Quillen VA Medical Center, Mountain Home, TN

Reserve Component Representative
Bradley F. Schwartz, DO, FACS
Southern Illinois University, Div. of Urology

SGSU Representative to the AUA Young Urologists
Erik Grossgold, MD
Naval Medical Center San Diego

Audit Committee
Hal A. Frazier, MD, Timothy Brand, MD, Sean P. Stroup, MD

SGSU Executive Directors
Chris DeSantis, MBA / Jeannie DeSantis, MBA
DeSantis Management Group
1950 Old Tustin Avenue, Santa Ana, CA 92705
T: 714.550.9155 / E: info@sgsu.org
www.sgsu.org
Urological Society for American Veterans (USAV) is established to enable its members to review and deliberate on topics and opportunities unique to federal urologic practitioners. The purpose of the organization is to initiate, discuss, and develop ideas, in an evidenced-based manner, which will improve the care of the Veteran patients with urologic disease(s) and the welfare of the federal urologic practitioner members. Learn about USAV’s missions and the benefits of membership by visiting USAV website: https://govurology.org/usav/

Please join the USAV in New Orleans at the AUA Annual Meeting

USAV Annual Meeting
Sunday, May 15, 10:30 am- 2:30 pm
(Place to be determined)
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 Chirugie 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.
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**

<table>
<thead>
<tr>
<th>Year</th>
<th>MAJ/GT</th>
<th>Military Affiliation</th>
<th>Hospital/Clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1957</td>
<td>Gerald Mahaffey, USAF</td>
<td>Letterman Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1958</td>
<td>A.A. Borski, USA</td>
<td>Fitzsimons Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td>LT Carter E. Carlton, USN</td>
<td>Baylor U. College of Medicine</td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td>Frank E. Ceccarelli, USA</td>
<td>Brooke Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>Herbert Levin, USA</td>
<td>Walter Reed Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1961</td>
<td>Richard C. Macure, USA</td>
<td>Brooke Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1962</td>
<td>LCDR R.M. Busch, USN</td>
<td>San Diego Naval Hospital</td>
<td></td>
</tr>
<tr>
<td>1963</td>
<td>Richard Finder, USA</td>
<td>Walter Reed Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1964</td>
<td>Mauro P. Gangai, USA</td>
<td>Walter Reed Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1965</td>
<td>Thomas Shown, USA</td>
<td>Letterman Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1966</td>
<td>LCDR Robert E. Julian, USN</td>
<td>US Naval Hospital, PA</td>
<td></td>
</tr>
<tr>
<td>1967</td>
<td>Robert Wright, USA</td>
<td>Brooke Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1968</td>
<td>John C. Wurster, USA</td>
<td>Tripler Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td>Joseph A. Bruckman, USA</td>
<td>Tripler Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>Davis F. Gates, USA</td>
<td>Tripler Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1971</td>
<td>Charles T. Swallow, USA</td>
<td>Brooke Gen Hospital</td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td>Tarver B. Bailey, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td>Peter A. Leninger, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td>George E. Deshon, Jr., USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td>Gerald L. Levisay, USA</td>
<td>Fitzsimons AMC</td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>H. David Cox, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>Jan Hull, USA</td>
<td>Brooke AMC</td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td>Shannon McMillen, USA</td>
<td>Madigan AMC</td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td>Clifford J. Nemeth, USN</td>
<td>National Naval Med Ctr</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>Phillip H. Beck, USA</td>
<td>Letterman AMC</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>Patrick W. Kronmiller, USA</td>
<td>Madigan AMC</td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>William D. Belville, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>David W. Bentley, USA</td>
<td>Fitzsimons AMC</td>
<td></td>
</tr>
<tr>
<td>1978</td>
<td>Victor J. Kiesling, USA</td>
<td>Letterman AMC</td>
<td></td>
</tr>
<tr>
<td>1978</td>
<td>Phillip H. Beck, USA</td>
<td>Letterman AMC</td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>Jack R. Pence II, USAF</td>
<td>Wilford Hall MC</td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>Rene Sepulveda, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>George G. Mygatt, USA</td>
<td>Tripler Army AMC</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>Jack R. Pence II, USAF</td>
<td>Wilford Hall MC</td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>Kathryn S. Buchta, USN</td>
<td>Naval Med Ctr, San Diego</td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>Gary A. Wikert, USA</td>
<td>Brooke AMC</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>Louis R. Cos, USA</td>
<td>Univ of Rochester MC</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>August Zabbo, USAF</td>
<td>Cleveland Clinic Foundation</td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>Robert G. Ferrigni, USAF</td>
<td>Wilford Hall MC</td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>Ian M. Thompson Jr., USA</td>
<td>Brooke AMC</td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td>Stephen M. Dresner, USAF</td>
<td>WA Univ, St. Louis, MO</td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td>Julius L. Teague, USA</td>
<td>Brooke AMC</td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>Thomas F. Huisman, USN</td>
<td>Naval Medical Ctr, San Diego</td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>Thomas A. Rozanski, USA</td>
<td>Madigan AMC</td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>Judd W. Moul, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Name</td>
<td>Institution</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------------</td>
<td>------------------------------------</td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>CPT Thomas A. Rozanski, USA</td>
<td>Madigan AMC</td>
<td></td>
</tr>
<tr>
<td>1987</td>
<td>LCDR Thomas J. Stilwell, USNR</td>
<td>Mayo Clinic, Rochester, MN</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>CPT Anurag K. Das, USAFR</td>
<td>Duke Univ Med Ctr</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>LT Jeffrey Twidwell, USNR</td>
<td>Naval Medical Ctr, San Diego</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>MAJ Kurt L. Hansberry, USA</td>
<td>Brooke AMC</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>CPT Leonard G. Renfer, USA</td>
<td>Madigan AMC</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>Cancelled (Desert Shield/Storm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>CPT Wilfred S. Kearse, Jr. USAF</td>
<td>Wilford Hall MC</td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>MAJ Timothy K. Dixon, USA</td>
<td>Brooke AMC</td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>CPT Richard W. Knight, USA</td>
<td>Madigan AMC</td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>MAJ Donald J. Lewis, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>MAJ M. David Bomalaski, USAAF</td>
<td>Wilford Hall MC</td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>MAJ Thomas M. Seay, USAF</td>
<td>Wilford Hall MC</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>CPT R. Duane Cespedes, USAF</td>
<td>Wilford Hall MC</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>MAJ Joseph Y. Clark, USA</td>
<td>Brooke AMC</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>CPT Jay T. Bishoff, USAAF</td>
<td>Wilford Hall MC</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>PT Ted O. Morgan, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>CPT Jay T. Bishoff, USAAF</td>
<td>Wilford Hall MC</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>CPT Raymond S. Lance, USA</td>
<td>Madigan AMC</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>MAJ John G. Anema, USAF</td>
<td>Wilford Hall MC</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>LTC Rhonda Cornum, USA</td>
<td>Brooke AMC</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>MAJ John G. Anema, USAF</td>
<td>SAUSHEC*</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>MAJ George B. Stackhouse, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>LT Melody A. Denson, USN</td>
<td>University of Iowa</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>CPT Kyle J. Weld, USAF</td>
<td>University of Tennessee</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>LCDR Prodromos G. Borboroglu, USN</td>
<td>Naval Medical Ctr, San Diego</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>CPT Michael L. Gallentine, USAAF</td>
<td>SAUSHEC*</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>MAJ Kevin J. Gancarczyk, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>CPT Barak Perahia, USAF</td>
<td>SAUSHEC*</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>CPT Ann S. Fenton, USAF</td>
<td>SAUSHEC*</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>CPT Kenneth H. Ferguson, USAAF</td>
<td>SAUSHEC*</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>CPT Eric J. Hick, USAF</td>
<td>SAUSHEC*</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>MAJ Stacey G. Koff, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>MAJ Mark Noller, USA</td>
<td>SAUSHEC*</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>CPT Thomas Novak</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>MAJ Inger Rosner, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>LT R. Chanc Walters, USN</td>
<td>Naval Medical Ctr, San Diego</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>LT Alison M. Lake, USN</td>
<td>University of Michigan</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>LT R. Chanc Walters, USN</td>
<td>Naval Medical Ctr, San Diego</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>LT Alison M. Lake, USN</td>
<td>University of Michigan</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>CPT L. Andrew Evans</td>
<td>SAUSHEC*</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>CPT Chad DeRosa, MC, USA</td>
<td>Walter Reed AMC</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>CPT Forrest C. Jellison, MC, USA</td>
<td>Loma Linda Medical Center</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>CPT Timothy Tausch, MC USA</td>
<td>Madigan AMC, WA</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>MAJ Patrick McDonough, MC, USA</td>
<td>Madigan AMC, WA</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>CPT Nicholas J. Kuntz, MC, USA</td>
<td>Duke University</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>CPT Mark R. Anderson, MC, USA</td>
<td>Duke University</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>CPT Ryan W. Speir, MC, USA</td>
<td>Madigan Army Medical Center</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>CPT Nicholas J. Kuntz, MC, USA</td>
<td>Duke University</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Name</td>
<td>Institution</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------</td>
<td>--------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>CPT Raffaella DeRosa, MC, USA</td>
<td>Tripler Army Medical Center</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>CPT Nicholas J. Kuntz, MC, USA</td>
<td>Duke University</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>MAJ Stephen Overholser, MC, USA</td>
<td>Univ. of TX Hlth. Sci. Ctr.</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>LT Travis C. Allemang, MC, USN</td>
<td>Naval Medical Center Portsmouth</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>CPT Tara K. Ortiz, MC, USA</td>
<td>Duke University Medical Center</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>CPT Jonathan Wingate, MC, USA</td>
<td>Madigan Army Medical Center</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>LT Chad Pusateri, MC, USN</td>
<td>Naval Medical Center San Diego</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>CPT Bradley Potts, MC, USA</td>
<td>Duke University Medical Center</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>CPT Alexandria Hertz, MC, USA</td>
<td>Madigan Army Medical Center</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>CPT Bradley A. Potts, MC, USA</td>
<td>Duke University Medical Center</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>No Recipient due to National Emergency</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*San Antonio Uniformed Services Health Education Consortium*
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.
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
2012  LCDR Joe Miller, MC, USN  Univ. of California, San Francisco
2013  LTC Timothy Brand MC, USA  Madigan Army Medical Center
2014  LCDR Douglas W. Storm, MC, USN  University of Iowa Hosp.& Clinics
2015  Col (Ret) Drew Peterson, MC, USA  Duke University
2018  Thomas Rozanski, MD  UT Hlth. Sci. Ctr. San Antonio
2019  Stephen A. Boorjian, MD  Mayo Clinic, Rochester, MN
2020  Ranjith Ramasamy, MD  University of Miami
2021  No recipient due to National Emergency

Established in 1992 for the best paper presented by a Society Member Staff Physician, as judged by Chief Residents attending the Seminar.
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)
2014    John M. Barry, MD
2015    DeSantis Management Group
2016    MAJ GEN Thomas P. Ball, USAF, Ret.
2017    George W. Kaplan, MD
2018    Gerald Jordan, MD
2019    Joseph Y. Clark, MD
2020    Steve Lynch, MD
2021    No recipient due to National Emergency
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 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 during the annual Manthos Resident and Young Urologist Luncheon.
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

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Winner(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>Teresa Clark &amp; Sharon Mason</td>
</tr>
<tr>
<td>2007</td>
<td>Janie N. Garcia</td>
</tr>
<tr>
<td>2008</td>
<td>Patricia A. Harrison</td>
</tr>
<tr>
<td>2009</td>
<td>Toni Dominci</td>
</tr>
<tr>
<td>2011</td>
<td>Verna Munroe</td>
</tr>
<tr>
<td>2016</td>
<td>Maria Salazar</td>
</tr>
<tr>
<td>2017</td>
<td>LTC Joseph R. Sterbis, MC, USA</td>
</tr>
<tr>
<td>2018</td>
<td>Inger Rosner, MD</td>
</tr>
<tr>
<td>2019</td>
<td>COL Robert C. Dean, MC, USA</td>
</tr>
<tr>
<td>2020</td>
<td>Pierce Irby, MD</td>
</tr>
<tr>
<td>2021</td>
<td>No recipient due to National Emergency</td>
</tr>
</tbody>
</table>
HONORARY LIFETIME MEMBERSHIP

Presented annually to an individual who has distinguished him or herself as a long-time supporter who is dedicated to the society.

HONORARY LIFETIME MEMBERSHIP AWARD
PREVIOUS WINNERS

2015    Brendan Fox, MD
2016    COL (Ret.) Martin L. Dresner, MD
2017    Mitchell Edson, MD
2018    John M. Barry, MD
2019    COL (Ret.) Noah S. Schenkman, MD
2020    Al Squitieri, MD, FACS, COL, MC, USA (Ret.)
2021    No recipient due to National Emergency
<table>
<thead>
<tr>
<th>NUMBER</th>
<th>YEAR</th>
<th>Location</th>
<th>Commanding Officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1953</td>
<td>Walter Reed General Hospital</td>
<td>COL Jack W. Schwartz, MC, USA</td>
</tr>
<tr>
<td>2</td>
<td>1954</td>
<td>Walter Reed General Hospital</td>
<td>COL Jack W. Schwartz, MC, USA</td>
</tr>
<tr>
<td>3</td>
<td>1955</td>
<td>Brooke General Hospital</td>
<td>COL Claude C. Dodson, MC, USA</td>
</tr>
<tr>
<td>4</td>
<td>1956</td>
<td>Walter Reed General Hospital</td>
<td>LTC Kryder E. Van Buskirk, MC, USA</td>
</tr>
<tr>
<td>5</td>
<td>1957</td>
<td>Walter Reed General Hospital</td>
<td>COL John F. Patton, MC, USA</td>
</tr>
<tr>
<td>6</td>
<td>1958</td>
<td>Brooke General Hospital</td>
<td>COL Louis K. Mantell, MC, USA</td>
</tr>
<tr>
<td>7</td>
<td>1959</td>
<td>Brooke General Hospital</td>
<td>COL Louis K. Mantell, MC, USA</td>
</tr>
<tr>
<td>8</td>
<td>1960</td>
<td>Brooke General Hospital</td>
<td>LTC Clarence B. Hewitt, MC, USA</td>
</tr>
<tr>
<td>9</td>
<td>1961</td>
<td>Brooke General Hospital</td>
<td>COL Louis K. Mantell, MC, USA</td>
</tr>
<tr>
<td>10</td>
<td>1962</td>
<td>Letterman General Hospital</td>
<td>COL Kryder E. Van Buskirk, MC, USA</td>
</tr>
<tr>
<td>11</td>
<td>1963</td>
<td>Walter Reed General Hospital</td>
<td>COL Clarence B. Hewitt, MC, USA</td>
</tr>
<tr>
<td>12</td>
<td>1964</td>
<td>Brooke General Hospital</td>
<td>COL Prince D. Beach, MC, USA</td>
</tr>
<tr>
<td>13</td>
<td>1965</td>
<td>Letterman General Hospital</td>
<td>LTC Charles A. Moore, MC, USA</td>
</tr>
<tr>
<td>14</td>
<td>1966</td>
<td>Walter Reed General Hospital</td>
<td>COL Kryder E. Van Buskirk, MC, USA</td>
</tr>
<tr>
<td>15</td>
<td>1967</td>
<td>Brooke General Hospital</td>
<td>COL Prince D. Beach, MC, USA</td>
</tr>
<tr>
<td>16</td>
<td>1968</td>
<td>Walter Reed General Hospital</td>
<td>COL Kryder E. Van Buskirk, MC, USA</td>
</tr>
<tr>
<td>17</td>
<td>1969</td>
<td>Letterman General Hospital</td>
<td>COL Leonard Maldonado, MC, USA</td>
</tr>
<tr>
<td>NUMBER</td>
<td>YEAR</td>
<td>Location</td>
<td>Commanding Officer(s)</td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
<td>----------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>18</td>
<td>1970</td>
<td>Brooke General Hospital</td>
<td>LTC Robert M. Dobbs, MC, USA</td>
</tr>
<tr>
<td>19</td>
<td>1971</td>
<td>Letterman General Hospital</td>
<td>LTC Ray E. Stutzman, MC, USA</td>
</tr>
<tr>
<td>20</td>
<td>1972</td>
<td>Fitzsimons General Hospital</td>
<td>COL Evan L. Lewis, MC, USA</td>
</tr>
<tr>
<td>21</td>
<td>1973</td>
<td>Walter Reed Army Medical Center</td>
<td>COL Anthony A. Borski, MC, USA, CAPT Mitchell Edson, MC, USN</td>
</tr>
<tr>
<td>22</td>
<td>1974</td>
<td>Brooke Army Medical Center</td>
<td>COL Mauro P. Gangai, MC, USA</td>
</tr>
<tr>
<td>23</td>
<td>1975</td>
<td>Madigan Army Medical Center</td>
<td>COL John N. Wettlaufer, MC, USA</td>
</tr>
<tr>
<td>24</td>
<td>1976</td>
<td>Naval Hospital, NRMC, San Diego, CA</td>
<td>CAPT C.R. Sargent, MC, USN</td>
</tr>
<tr>
<td>25</td>
<td>1977</td>
<td>Fitzsimons Army Medical Center</td>
<td>COL Robert M. Dobbs, MC, USA</td>
</tr>
<tr>
<td>27</td>
<td>1979</td>
<td>Walter Reed Army Medical Center</td>
<td>COL Ray E. Stutzman, MC, USA</td>
</tr>
<tr>
<td>28</td>
<td>1980</td>
<td>Naval Regional Med Center, San Diego</td>
<td>CAPT Michael R. McCarthy, MC, USN, CDR John P. Sands, MC, USN</td>
</tr>
<tr>
<td>29</td>
<td>1981</td>
<td>Fitzsimons Army Medical Center</td>
<td>COL Howard E. Fauver, MC, USA</td>
</tr>
<tr>
<td>30</td>
<td>1982</td>
<td>Wilford Hall USAF Medical Center</td>
<td>COL Donald E. Novicki, USAF, MC, LT COL Richard A. Airhart, USAF, MCP</td>
</tr>
<tr>
<td>31</td>
<td>1983</td>
<td>Letterman Army Medical Center</td>
<td>COL Robert E. Agee, MC, USA</td>
</tr>
<tr>
<td>32</td>
<td>1984</td>
<td>Naval Hospital, Oakland, CA</td>
<td>CDR George J. Gavrell, MC, USN</td>
</tr>
<tr>
<td>NUMBER</td>
<td>YEAR</td>
<td>Location and Participants</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
<td>--------------------------</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>1985</td>
<td>Madigan Army Medical Center, COL William D. Belville, MC, USA</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>1986</td>
<td>Wilford Hall USAF Medical Center, COL Alvin L. Sago, USAF, MC, LTC John D. Maldazys, MC, USAF</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>1987</td>
<td>Walter Reed Army Medical Center/USUHS, COL David G. McLeod, MC, USA, LTC Steven J. Skoog, MC, USAF</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>1988</td>
<td>Naval Hospital Portsmouth, CAPT Gordon MacDonald, MC, USAF</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>1989</td>
<td>Brooke Army Medical Center, COL Francisco R. Rodriguez, MC, USAF</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>1990</td>
<td>Fitzsimons Army Medical Center, COL Michael J. Raife, MC, USAF</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>1992</td>
<td>Madigan Army Medical Center, Four Seasons Olympic Hotel, Seattle, WA, COL John N. Wettlauffer, MC, USAF</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>1993</td>
<td>Naval Medical Center San Diego, Bahia Hotel, San Diego, CA, CAPT John P. Sands, MC, USN</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>1994</td>
<td>Naval Medical Center Portsmouth, Omni at Charleston Place, Charleston, SC, CAPT James R. Auman, MC, USN</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>1995</td>
<td>Walter Reed Army Medical Center/USUHS, L’Enfant Plaza, Washington, DC, COL David G. McLeod, MC, USA, LTC Pierce B. Irby, MC, USAF</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>1996</td>
<td>Wilford Hall USAF Medical Center, Scottsdale Plaza Hotel, Scottsdale, AZ, MAJ Steven C. Lynch, MC, USAF, MAJ Edmund S. Sabanegh, MC, USAF</td>
<td></td>
</tr>
<tr>
<td>NUMBER</td>
<td>YEAR</td>
<td>Location and Details</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
<td>----------------------</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>1997</td>
<td>Tripler Army Medical Center, The Fairmont Hotel, San Francisco, CA, COL George E. Deshon, MC, USA</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>1999</td>
<td>Brooke Army Medical Center, Hilton Palacio Del Rio, San Antonio, TX, LTC Thomas A. Rozanski, MC, USA, LTC John P. Foley, MC, USA</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>2000</td>
<td>Naval Medical Center San Diego, Wyndam Emerald Plaza, San Diego, CA, CAPT James L. Roberts, MC, USN, LCDR Christopher J. Kane, MC, USN</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>2001</td>
<td>Madigan Army Medical Center, Four Seasons Olympic Hotel, Seattle, WA, LTC(P) Raymond A. Costabile, MC, USA</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>2002</td>
<td>Walter Reed Army Medical Center, Crystal City Marriott Hotel, Arlington, VA, COL Dennis S. Peppas, MC, USA</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>2005</td>
<td>Tripler Army Medical Center, Sheraton Waikiki Hotel, Honolulu, HI, COL Ronald S. Sutherland, MC, USA</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>2006</td>
<td>Naval Medical Center Portsmouth &amp; Eastern Virginia Medical School, Savannah Marriott Riverfront, Savannah, GA, CAPT Leo Kusuda, MC, USN, Gerald H. Jordan, MD</td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>2007</td>
<td>Brooke Army Medical Center, Westin Galleria, Houston, TX, LTC Douglas W. Soderdahl, MC, USA, COL Allen F. Morey, MC, USA</td>
<td></td>
</tr>
<tr>
<td>NUMBER</td>
<td>YEAR</td>
<td>Location &amp; Hotel Details</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
<td>--------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| 55     | 2008 | Naval Medical Center San Diego
Wyndam Emerald Plaza, San Diego, CA
CDR Brian K. Auge, MC, USN
LCDR Donald S. Crain, MC, USN |
| 56     | 2009 | Walter Reed Army Medical Center & National Naval Medical Center-Bethesda
Hyatt Regency Capitol Hill, Washington DC
COL James R. Jezior, MC, USA
COL Robert C. Dean, MC, USA |
| 57     | 2010 | Wilford Hall Medical Center
Westin Hotel, San Antonio, TX
LT COL Kyle J. Weld, MC, USAAF |
| 58     | 2011 | Madigan Army Medical Center
Seattle Sheraton, Seattle, WA
MAJ Timothy C. Brand, MC, USA |
| 59     | 2012 | Naval Medical Center Portsmouth
Charleston Marriott, Charleston, SC
CAPT Paul D. McAdams, MD, FACS |
| 60     | 2013 | Tripler Medical Center, Honolulu
Marriott Waikiki Beach Hotel, Honolulu, HI
COL (Ret) USA, Richard S. Stack, MD
MAJ Joseph Sterbis, MC, USA
CDR Tammy L. Bloom, MC, USN |
| 61     | 2014 | Naval Medical Center San Diego
Sheraton Harbor Island Hotel, San Diego, CA
CDR Sean P. Stroup, MC, USN
CDR Jamey Sarvis, MC, USN |
| 62     | 2015 | Madigan Army Medical Center
Sheraton Harbor Island Hotel, San Diego, CA
LTC Timothy C. Brand, MC, USA
LTC Jack R. Walter, MC, USA |
| 63     | 2016 | San Antonio Military Medical Center
Westin Hotel, San Antonio, TX
MAJ Steven J. Hudak, MC, USA
LT COL Timothy M. Phillips, MC, USAAF |
<table>
<thead>
<tr>
<th>NUMBER</th>
<th>YEAR</th>
<th>Event Details</th>
</tr>
</thead>
</table>
| 64     | 2017 | Naval Medical Center, Portsmouth, VA  
|        |      | Sheraton Harbor Island Hotel, San Diego, CA  
|        |      | CDR R. Chanc Walters, MC, USN  
|        |      | LCDR Paul R. Womble, MC, USN |
| 65     | 2018 | Walter Reed National Military Medical Center  
|        |      | The Scottsdale Resort at McCormick Ranch, Scottsdale, Arizona  
|        |      | COL Robert C. Dean, MC, USA |
| 66     | 2019 | Tripler Army Medical Center  
|        |      | Sheraton Kona Hotel, Kona, Hawaii  
|        |      | LTC Joseph Sterbis, MC, USA &  
|        |      | LTC John Musser, MC, USA |
| 67     | 2020 | Brooke Army Medical Center  
|        |      | San Antonio Military Medical Center  
|        |      | Hilton Charlotte University Place, Charlotte, NC  
|        |      | LTC Christopher Allam, MC, USAF  
|        |      | LTC George Kallingal, MC, USA |
| 68     | 2021 | Naval Medical Center San Diego  
|        |      | USNR / MEDVAMC / Baylor College of Medicine  
|        |      | Virtual One-Day Meeting  
|        |      | CDR Justin DeGrado, MC, USN, Jeffrey Jones, MD |
| 68     | 2022 | Naval Medical Center San Diego  
|        |      | USNR / MEDVAMC / Baylor College of Medicine  
|        |      | Westin Mission Hills, Rancho Mirage, CA  
|        |      | CDR Justin DeGrado, MC, USN, Jeffrey Jones, MD |
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, exhibits, social events, breakfasts, and breaks. Should you wish to bring your spouse to any of these events, you must register them for a badge.

Registered Spouses/Guests are welcome to attend the morning breakfasts and breaks in the exhibit hall. Spouse/Guest badge is required.

Overview/Highlights:
Topics featured at the Kimbrough Annual Seminar will feature state of the art lectures in various urologic topics - including: Priapism, Prostate Cancer, Female Sexual Medicine, Pediatric Urology, Bladder Cancer, Genitourinary Trauma Management, Urothelial Carcinoma, Kidney Stones Prevention, Renal Masses, Urethral Stricture, and VA & Surgical Updates. In addition, the program will include the traditional Resident Research Competition, Research Papers, Podium/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.

Dress Code:
Service Dress on Thursday (Business for civilians) for picture, and any time when presenting or moderating. All other times will be business casual (collared shirt and slacks or female equivalent). GU Bowl Friday night is 80s themed - wear your 80s clothing with 80s band to follow the competition.

Attention Presenters:
Go to slide preview area to make changes/update slides. Updates must be made at least one 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 - 9:00 AM
Acknowledgement of Financial Commercial Support
No financial commercial support was received for this educational activity.

Acknowledgement of In-Kind Commercial Support
No in-kind commercial support was received for this educational activity.

Satisfactory Completion
Learners must complete an evaluation form to receive a certificate of completion. Your chosen sessions must be attended in their entirety. Partial credit of individual sessions is not available. If you are seeking continuing education credit for a specialty not listed below, it is your responsibility to contact your licensing/certification board to determine course eligibility for your licensing/certification requirement.

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

Physicians (ACCME) Credit Designation
Amedco LLC designates this live activity for a maximum of 20.25 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 You Should Be Able To:
1. Discuss and review new therapies for urologic cancers.
2. Describe management options for treating small renal masses.
3. Examine new methods for the treatment for various conditions of priapism.

Disclosure of Conflict of Interest
The following table of disclosure information is provided to learners and contains the relevant financial relationships that each individual in a position to control the content disclosed to Amedco. All of these relationships were treated as a conflict of interest, and have been resolved. (C7 SCS 6.1--6.2, 6.5)

All individuals in a position to control the content of CE are listed in the program book. If their name is not listed below, they disclosed that they had no financial relationships with a commercial interest.

<table>
<thead>
<tr>
<th>Name</th>
<th>Commercial Interest: Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Janelle Fox</td>
<td>Innocoll: Other</td>
</tr>
<tr>
<td>Mohit Khera</td>
<td>Antares, Acerus, Abbvie, Clarus: Consultant</td>
</tr>
<tr>
<td>Jaime Landman</td>
<td>Auris medical:Research Grant Site Principal Investigator/Auris Med: Consultant</td>
</tr>
<tr>
<td>Manoj Monga</td>
<td>cook, bard, auris, coloplast, boston scientific:Consultant</td>
</tr>
<tr>
<td>Judd Moul</td>
<td>Tolmar:Consultant/Myovant, Janssen:Speakers Bureau/Pfizer:Research Grant Site Principal Investigator/Bayer:Scientific/Medical Advisory Board Member</td>
</tr>
<tr>
<td>RS Rubin</td>
<td>IPSEN:Research Grant Site Principal Investigator/Sprout:Consultant/Promescent: Scientific/Med. Adv. Board Member</td>
</tr>
<tr>
<td>Sean Stroup</td>
<td>Neotrac, Inc, Intuitive Surgical:Consultant</td>
</tr>
</tbody>
</table>
For CME Credit:
1. Submit daily evaluations
2. After meeting, print your certificate

1. Complete your daily evaluations electronically
   Go to >> govurology.org
   Click on >> 2022 Daily Evaluations

2. Print Your CME Certificate
   Go to >> www.govurology.org
   Click on >> Print 2022 CME Certificate

Please print all pages of your certificate for your record.
Questions? Email Certificate@AmedcoEmail.com

Thank you!
<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00 PM - 6:00 PM</td>
<td>Registration</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>2:00 PM - 6:00 PM</td>
<td>Slide Preview</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>2:00 PM - 4:00 PM</td>
<td>Board of Director’s Mtg.</td>
<td>Moraccan Boardroom</td>
</tr>
<tr>
<td>6:30 PM - 8:30 PM</td>
<td>Welcome Reception</td>
<td>Ambassador Patio</td>
</tr>
</tbody>
</table>

**THURSDAY, JANUARY 27**

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM - 2:40 PM</td>
<td>Exhibits Open</td>
<td>Ambassador Bllrm. 1-3</td>
</tr>
<tr>
<td>7:00 AM - 8:15 AM</td>
<td>Networking Breakfast</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>7:00 AM - 4:00 PM</td>
<td>Registration</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>7:00 AM - 5:00 PM</td>
<td>Slide Preview Station</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>8:15 AM - 8:45 AM</td>
<td>Opening Ceremonies</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>8:45 AM - 9:00 AM</td>
<td>Group Picture</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>9:00 AM - 9:20 AM</td>
<td>Resident Competition 1</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>9:20 AM - 9:40 AM</td>
<td>Resident Competition 2</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>9:40 AM - 10:00 AM</td>
<td>Resident Competition 3</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>10:00 AM - 10:45 AM</td>
<td>Refreshment Break</td>
<td>Exhibits/ExpoLabArea</td>
</tr>
<tr>
<td>10:45 AM - 11:45 AM</td>
<td>Educational Symposium</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>11:45 AM - 12:05 PM</td>
<td>Resident Competition 4</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>12:05 PM - 1:40 PM</td>
<td>Manthos Lunch Program</td>
<td>AmbassadorBllrm. 4-6.</td>
</tr>
<tr>
<td>12:05 PM - 1:40 PM</td>
<td>Lunch in Exhibits Area</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>1:40 PM - 2:15 PM</td>
<td>Resident Competition 5</td>
<td>AmbassadorBllrm. 4-6</td>
</tr>
<tr>
<td>2:15 PM - 2:40 PM</td>
<td>Break in ExpoLAB</td>
<td>Exhibits/ExpoLabArea</td>
</tr>
<tr>
<td>2:50 PM - 3:30 PM</td>
<td>Resident Competition 6</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
</tbody>
</table>
### FRIDAY, JANUARY 28

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM - 2:00 PM</td>
<td>Exhibits Open</td>
<td>Ambassador Bllrm. 1-3</td>
</tr>
<tr>
<td>7:00 AM - 8:15 AM</td>
<td>Networking Breakfast</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>7:00 AM - 3:00 PM</td>
<td>Registration</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>7:00 AM - 5:00 PM</td>
<td>Slide Preview Station</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>8:15 AM - 9:05 AM</td>
<td>Sexual Medicine Part 1</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>9:05 AM - 10:10 AM</td>
<td>Educational Symposium</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>10:15 AM - 11:15 AM</td>
<td>Refreshment Break</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>11:15 AM - 11:55 AM</td>
<td>Sexual Medicine Part 2</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>12:00 PM - 1:15 PM</td>
<td>CME Lunch Program</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>1:25 PM - 2:10 PM</td>
<td>Pediatrics/Trans.Urology</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>2:10 PM - 2:20 PM</td>
<td>General Urology</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>2:20 PM - 2:40 PM</td>
<td>Video Session</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>5:00 PM - 5:30 PM</td>
<td>GU Bowl Tailgate Party</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>5:30 PM - 6:30 PM</td>
<td>GU Bowl</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>6:30 PM - 10:30 PM</td>
<td>80’s Night Party</td>
<td>Ambassador Bllrm. 4-7</td>
</tr>
</tbody>
</table>

### SATURDAY, JANUARY 29

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM - 5:00 PM</td>
<td>Registration</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>7:00 AM - 5:00 PM</td>
<td>Slide Preview Station</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>7:15 AM - 2:00 PM</td>
<td>Exhibits Open</td>
<td>Ambassador Bllrm. 1-3</td>
</tr>
<tr>
<td>7:15 AM - 8:30 AM</td>
<td>Networking Breakfast</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>8:30 AM - 9:15 AM</td>
<td>Consultant Updates</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
</tbody>
</table>
**PROGRAM-AT-A-GLANCE**

Special Note: Meal service for all daytime functions is in the first hour.

### SATURDAY, JANUARY 29 (cont.)

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:15 AM - 9:45 AM</td>
<td>Bladder</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>9:45 AM - 10:15 AM</td>
<td>Oncology: Testis</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>10:15 AM - 11:15 AM</td>
<td>Refreshment Break</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>11:15 AM - 12:00 PM</td>
<td>Reconstruction</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>12:00 PM - 1:15 PM</td>
<td>CME Lunch Program</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>1:20 PM - 2:30 PM</td>
<td>SGSU Business Meeting</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>2:30 PM - 4:00 PM</td>
<td>Oncology: Kidney/Adrenal</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>4:05 PM - 4:30 PM</td>
<td>Urethral Reconstruction</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>4:40 PM - 6:00 PM</td>
<td>Poster Session/Reception</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
</tbody>
</table>

### SUNDAY, JANUARY 30

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM - 11:00 AM</td>
<td>Registration</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>7:00 AM - 8:00 AM</td>
<td>Continental Breakfast</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>7:30 AM - 8:05 AM</td>
<td>Prostate Cancer</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>8:00 AM - 11:00 AM</td>
<td>Mock Oral Boards</td>
<td>Ambassador Bllrm. 1-3</td>
</tr>
<tr>
<td>8:10 AM - 10:25 AM</td>
<td>USAV Session</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
</tbody>
</table>
INVITED SPEAKERS

William Aronson, MD  
Professor, UCLA Health Medical Ctr.

Roger G. Bonds, MSB, FMSD, CMSR  
President/ CEO of  
PhysicianCareerAdvisor.com

Siamak Daneshmand, MD  
Professor of Urology (Clinical Scholar)  
Director of Urologic Oncology &  
Clinical Research, Urologic Oncology  
Fellowship Director, USC/Norris  
Comprehensive Cancer Center

Joel Gelman, MD  
HS Clinical Professor-VCF, Univ. of  
California, Irvine

Antoine E. Khoury, MD  
Professor, Univ. of California, Irvine

Jaime Landman, MD  
Professor and Chairman of Urology &  
Radiology, Univ. of California, Irvine

Richard Link, MD, PhD  
Carlton-Smith Endowed Chair in  
Urologic Education, Baylor College of  
Medicine

Bryan A. Melhaff, MD  
Oregon Urology Institute, Div. of  
Clinical Research, Springfield, OR

Manoj Monga, MD, FACS  
Chair, Dpt. of Urology, Univ. of  
California, San Diego

Jeremy Myers, MD  
Division Chief, Div. of Urology, Univ.  
of Utah

Matthew B. Rettig, MD  
Medical Oncologist, Ronald Reagan  
UCLA Medical Center & VA Greater  
Los Angeles Healthcare System

Rachel Rubin, MD  
Urologist/Sexual Medicine Specialist  
/ Assistant Clinical Professor,  
Urology, Georgetown Univ. Hospital

Hossein Sadeghi-Nejad, MD, FACS  
Professor of Urology, Rutgers NJMS &  
Hackensack University Medical Center  
Chief of Urology, VA NJ Health Care  
System, Immediate Past President,  
SMSNA

Sean Stroup, MD  
Naval Medical Center, San Diego

Scott Swanson, MD  
AUA Immediate Past President  
Mayo Clinic, AZ

Ulka Vaishampayan, MD  
Chair of Phase I Therapy, GU Medical  
Oncology, Professor Internal  
Medicine, University of Michigan
<table>
<thead>
<tr>
<th>Name</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algiers, Timothy J.</td>
<td>56</td>
</tr>
<tr>
<td>Allam, Christopher</td>
<td>50</td>
</tr>
<tr>
<td>Allkanjari, Armand</td>
<td>41</td>
</tr>
<tr>
<td>Antar, Ali</td>
<td>60</td>
</tr>
<tr>
<td>Aronson, William</td>
<td>43</td>
</tr>
<tr>
<td>Baaklini, Gina T.</td>
<td>56</td>
</tr>
<tr>
<td>Baker, Benjamin</td>
<td>38</td>
</tr>
<tr>
<td>Ballantyne, Christopher</td>
<td>54</td>
</tr>
<tr>
<td>Barham, David</td>
<td>55</td>
</tr>
<tr>
<td>Berger, Jonathan</td>
<td>48</td>
</tr>
<tr>
<td>Biewenga, Eric</td>
<td>45</td>
</tr>
<tr>
<td>Boehm, Brock E.</td>
<td>56</td>
</tr>
<tr>
<td>Boit, Rodney</td>
<td>60</td>
</tr>
<tr>
<td>Bonds, Roger</td>
<td>39</td>
</tr>
<tr>
<td>Carr, Reilly</td>
<td>57</td>
</tr>
<tr>
<td>Chesnut, Gregory</td>
<td>54</td>
</tr>
<tr>
<td>Christian, Matthew</td>
<td>46</td>
</tr>
<tr>
<td>Christman, Matthew</td>
<td>40, 46</td>
</tr>
<tr>
<td>Clark, Joseph</td>
<td>36, 37, 38, 40, 41, 47</td>
</tr>
<tr>
<td>Craig, Ryan</td>
<td>57</td>
</tr>
<tr>
<td>Crosby, Michael</td>
<td>60</td>
</tr>
<tr>
<td>Daneshmand, Siamak</td>
<td>51</td>
</tr>
<tr>
<td>Dean, Robert</td>
<td>35, 36, 37, 38, 40, 41</td>
</tr>
<tr>
<td>Degrado, Justin J.</td>
<td>35</td>
</tr>
<tr>
<td>Donepudi, Santhosh</td>
<td>46</td>
</tr>
<tr>
<td>E-Nunu, Toritsetimiyan</td>
<td>37</td>
</tr>
<tr>
<td>Fox, Janelle</td>
<td>40, 46</td>
</tr>
<tr>
<td>Frazier, Hal</td>
<td>36, 54</td>
</tr>
<tr>
<td>Gelman, Joel</td>
<td>55</td>
</tr>
<tr>
<td>Gibson, Isabel</td>
<td>57</td>
</tr>
<tr>
<td>Gillis, Ryan</td>
<td>40</td>
</tr>
<tr>
<td>Godoy, Gui</td>
<td>60</td>
</tr>
<tr>
<td>Grossgold, Erik</td>
<td>37, 39, 50, 53, 55</td>
</tr>
<tr>
<td>Grub, Robert</td>
<td>60</td>
</tr>
<tr>
<td>Hill, Jonathan</td>
<td>60</td>
</tr>
<tr>
<td>Issa, Muta</td>
<td>36, 50, 60</td>
</tr>
<tr>
<td>Jones, Jeffrey</td>
<td>35, 60</td>
</tr>
<tr>
<td>Kahlenberg, Zachary</td>
<td>60</td>
</tr>
<tr>
<td>Kehoe, John</td>
<td>46, 59</td>
</tr>
<tr>
<td>Kelley, Jeremy</td>
<td>56</td>
</tr>
<tr>
<td>Kern, Sean Q</td>
<td>41</td>
</tr>
<tr>
<td>Khera, Mohit</td>
<td>60</td>
</tr>
<tr>
<td>Khoury, Antoine</td>
<td>46</td>
</tr>
<tr>
<td>Kinley, Austin</td>
<td>60</td>
</tr>
<tr>
<td>Koff, Stacey</td>
<td>36, 60</td>
</tr>
<tr>
<td>Landman, Jaime</td>
<td>54</td>
</tr>
<tr>
<td>Link, Richard E</td>
<td>47, 54</td>
</tr>
<tr>
<td>Lyons, Cassandra C</td>
<td>36, 43</td>
</tr>
<tr>
<td>Mack, Leigh</td>
<td>59</td>
</tr>
<tr>
<td>Maxon, Victoria</td>
<td>47</td>
</tr>
<tr>
<td>McLain, Colin A</td>
<td>41, 46</td>
</tr>
<tr>
<td>Mecca, Daniel</td>
<td>40</td>
</tr>
<tr>
<td>Medendorp, Andrew R</td>
<td>37, 53</td>
</tr>
<tr>
<td>Melhaff, Bryan A</td>
<td>38</td>
</tr>
<tr>
<td>Meyers, Jeremy</td>
<td>53</td>
</tr>
<tr>
<td>Michel, Chloe</td>
<td>38</td>
</tr>
<tr>
<td>Manga, Manoj</td>
<td>54</td>
</tr>
<tr>
<td>Moul, Judd W</td>
<td>59</td>
</tr>
<tr>
<td>Murray, Brittney</td>
<td>47</td>
</tr>
<tr>
<td>Mygatt, Justin</td>
<td>56</td>
</tr>
<tr>
<td>Nork, Justin J</td>
<td>41, 43</td>
</tr>
<tr>
<td>Powell, Timothy</td>
<td>38</td>
</tr>
<tr>
<td>Rettig, Matthew B</td>
<td>45</td>
</tr>
<tr>
<td>Rigo, Paolo Q</td>
<td>56</td>
</tr>
<tr>
<td>Rinehart, Charles V</td>
<td>40</td>
</tr>
<tr>
<td>Rubin, Rachel</td>
<td>43, 45</td>
</tr>
<tr>
<td>Sadeghi-Nejad, Hossein</td>
<td>43</td>
</tr>
<tr>
<td>Saeger, Jessica B</td>
<td>36</td>
</tr>
<tr>
<td>Saitz, Ted</td>
<td>36</td>
</tr>
<tr>
<td>Savage, Stephan</td>
<td>60</td>
</tr>
<tr>
<td>Seymour, Zachary</td>
<td>36</td>
</tr>
</tbody>
</table>
INDEX OF PARTICIPANTS

Shew, Sable.................................48
Smith, Melissa.................................59
Siddiqui, Minhaj...............................60
Speir, Ryan.......................................38
Starosta, Sarah.................................48,56
Sterbis, Joseph R...............................50,51,59
Stroup, Sean.....................................51
Swanson, Scott.................................35,36,37,38,40,41
Syed, Helal A.....................................41
Taylor, Jennifer......................................60
Vaishampayan, Ulka.............................53
Vaught, Brian....................................37
Williams, Leah.................................41
Winebaum, Jenna...............................60
Wright, Timothy.................................51,57
Woodle, Tarah....................................51
Yeaman, Clinton.................................36,40
Yu, Jonathan S....................................56

HUGE VALUE!

Sign up for Mock Oral Boards at Registration Desk. Boasting a 90% Pass-Rate!

Head to the ExpoLab - Visit our Exhibitors!

BE THE FIRST TO WIN!

Get stickers to complete your Yellow Prize Card and ask for Scratch Card to win instantly!
EXHIBITOR ACTIVITIES

Visit the Exhibits/Expo Lab For The Education & Experience!

Latest in technology & services  Hearty networking breakfasts
Win prizes during breaks  Lively refreshment breaks

Show your Prize Card to win!

Located in the Ambassador Ballroom 1-3
Hours:
Thurs.: 7:00am - 2:40pm
Fri: 7:00am - 2:00pm
Sat: 7:15am - 2:00pm

Thursday ExpoLab Events:
Breakfast: 7:00am
Refreshment Break: 10:00am
Lunch Break: 12:05pm
Break: 2:15pm

Friday ExpoLab Events:
Breakfast: 7:00am
Refreshment Break: 10:15am

Saturday Expo Lab Events:
Breakfast: 7:15am
Refreshment Break: 10:15am

Visit with the Expo Lab during the Breakfasts, Refreshment Breaks & Thursday Lunch
Use your Prize Card & get Scratcher Cards to win prizes!
EXHIBITORS

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

Thank You!

Astellas Pharma / Pfizer
Oncology
Bayer Healthcare
Blue Earth Diagnostics
Boston Scientific Corp.
Corbin/Clinical Resources / Perineologic
Decipher Urologic Cancer
EDAP TMS
ENDO
Exact Sciences
Exosome Diagnostics
Guerbet
Karl Storz Endoscopy-America
Kdx Diagnostics, Inc.
MDx Health

Myovant Sciences
Neottract Teleflex
OPKO Health, Inc.
Pacific Edge Diagnostics
Photocure
Plexus
Sagent Urology
Siemens Healthineers
Soundable Health
Tolmar
UroGen Pharma, Inc.
Veterans Prostate Cancer Awareness
Wellspect
WSI, PBG, LLC

Please visit and Thank our Exhibitors in the Expo Lab and see what’s new and exciting. Win prizes! Say “Hello”.

31
The SGSU thanks the following companies for their outstanding support!

**Promotional Partners**

**Platinum**
- Plexus
- Astellas Pharma US, Inc. / Pfizer Oncology
- Bayer

**Bronze**
- Exosome Diagnostics
- OPKO Health, Inc.

**Emerald**
- Sexual Medicine Society of North America
- Society of Genitourinary Reconstructive Surgeons
- International Society for the Study of Women’s Sexual Health
- American Urological Association
68th Kimbrough
Annual Seminar * Westin Mission Hills * Rancho Mirage, CA

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00 PM - 6:00 PM</td>
<td>Registration</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>2:00 PM - 6:00 PM</td>
<td>Slide Preview</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>2:00 PM - 4:00 PM</td>
<td>Board of Director’s Mtg.</td>
<td>Moroccan Boardroom</td>
</tr>
<tr>
<td>6:30 PM - 8:30 PM</td>
<td>Welcome Reception</td>
<td>Ambassador Patio</td>
</tr>
</tbody>
</table>

6:30pm - 8:30pm - Ambassador Patio

Welcome Reception

Kick-off the meeting with your colleagues

Everyone is welcome! Join friends and colleagues while enjoying an assortment of food stations and libations amidst the beautiful desert outdoor atmosphere on the Ambassador Patio.

Dress is resort cocktail attire.

Bring your Green Drink Tickets.
### THURSDAY, JANUARY 27

**Outline of Scientific Program**

**68th Kimbrough Annual Seminar * Westin Mission Hills * Rancho Mirage, CA**

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM - 2:40 PM</td>
<td>Exhibits Open</td>
<td>Ambassador Bllrm. 1-3</td>
</tr>
<tr>
<td>7:00 AM - 8:15 AM</td>
<td>Networking Breakfast</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>7:00 AM - 4:00 PM</td>
<td>Registration</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>7:00 AM - 5:00 PM</td>
<td>Slide Preview Station</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>8:15 AM - 8:35 AM</td>
<td>Opening Ceremonies</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>8:35 AM - 8:45 AM</td>
<td>AUA Keynote Address</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>8:45 AM - 9:00 AM</td>
<td>Group Picture</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>9:00 AM - 9:20 AM</td>
<td>Resident Competition 1</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>9:20 AM - 9:40 AM</td>
<td>Resident Competition 2</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>9:40 AM - 10:00 AM</td>
<td>Resident Competition 3</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>10:00 AM - 10:45 AM</td>
<td>Refreshment Break</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>10:45 AM - 11:45 AM</td>
<td>Educational Symposium</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>11:45 AM - 12:05 PM</td>
<td>Resident Competition 4</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>12:05 PM - 1:40 PM</td>
<td>Manthos Lunch Program</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>12:05 PM - 1:40 PM</td>
<td>Lunch in Exhibits Area</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>1:40 PM - 2:15 PM</td>
<td>Resident Competition 5</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>2:15 PM - 2:40 PM</td>
<td>Break in ExpoLAB</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>2:50 PM - 3:30 PM</td>
<td>Resident Competition 6</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
</tbody>
</table>

**Rise and Shine**

Head to the EXPO LAB (Exhibits Areas) this morning for breakfast & coffee! Say hello to our industry representatives and ask for the stickers to complete your PRIZE CARD and for a SCRATCH CARD!
THURSDAY, JANUARY 27, 2022

OPENING CEREMONIES
8:15 AM - 9:20 AM - University Ballroom

8:15AM - 8:30AM Welcome & Announcements
Program Chairmen: CDR Justin DeGrado, MC, USN & Jeffrey Jones, MD &
President: COL (Ret.) Robert Dean, MD

8:30AM - 8:35AM National Anthem

1. 8:35 AM - 8:45 AM AUA Keynote Address
Scott Swanson, MD
Immediate Past President,
American Urological Association

8:45AM Stay for Group Picture (All)
THURSDAY, JANUARY 27, 2022

RESIDENTS COMPETITION 1
General Urology
9:00 AM - 9:20 AM - Ambassador Ballroom 4-6
(Papers are seven minutes)
Moderators: MAJ Ted Saitz, MC, USAF, COL (Ret.) Stacey Koff, MC, USA
Judges: COL (Ret.) Robert Dean, MD, Joseph Clark, MD, Scott Swanson, MD

2 9:00AM  Maj Jessica Saeger, MC, USAF
Preparedness of Urology Residents During COVID-19.

3 9:07AM  Capt Clinton Yeaman, MC, USAF
Financial Impact Of Urologic Conditions In Men And Women In Belize.

9:14AM  Discussion (6 minutes)

9:20AM  End of Session

THURSDAY, JANUARY 27, 2022

RESIDENTS COMPETITION 2
Prostate
9:20 AM - 9:40 AM - Ambassador Ballroom 4-6
(Papers are seven minutes)
Moderators: Hal Frazier, MD, Muta Issa, MD, MBA
Judges: COL (Ret.) Robert Dean, MD, Joseph Clark, MD, Scott Swanson, MD

4 9:20AM  03 Cassandra Lyons, MC, USA
Utility of SelectMDx and Multiparametric Magnetic Resonance Imaging in the Detection of Prostate Cancer: A Retrospective Single Center Analysis.

5 9:27AM  CPT Zachary Seymour, MC, USA
MRI-TRUS Fusion Biopsy: Early MTF Experience.

9:34AM  Discussion (6 minutes)

9:40AM  End of Session
THURSDAY, JANUARY 27, 2022

RESIDENTS COMPETITION 3

Incontinence

9:40 AM - 10:00 AM - Ambassador Ballroom 4-6
(Papers are seven minutes)

Moderators: CDR Erik Grossgold, MC, USN,
LTC Andrew Medendorp, MC, USA

Judges: COL (Ret.) Robert Dean, MD, Joseph Clark, MD, Scott Swanson, MD

6  9:40AM  LT Brian Vaught, MC, USN
Comparing Artificial Urinary Sphincter (AUS) Outcomes In Men
With And Without Prior Sling Surgery.

7  9:47AM  MAJ Toritsetimiyn E-nunu, MC, USA
Racial Disparities in Female Reconstructive Surgery Procedures.

9:54AM  Discussion (6 minutes)

10:00AM  End of Session

10:00 AM - 10:45 AM

VENDOR-BLENDER - FUEL UP

Refreshment Break in Expo Lab

Be a Winner, Visit the Vendors, ask for a
Scratcher Card
& stickers for the Prize Card
To Win Great Prizes!!!
Elevate Care in Advanced Prostate Cancer.

Bryan A. Mehlhoff, MD
Oregon Urology Institute, Division of Clinical Research, Springfield, OR

Calculi/Kidney

9 11:45AM  LT Chloe Michel, MC, USN
Pathological Effects of Renal Ischemia After Partial Nephrectomy in the Rabbit (Oryctolagus cuniculus) Model.

10 11:52AM  Benjamin Baker, MC, USN
APUL Study: Apple Cider Vinegar for Prevention of Urinary Lithiasis.

11:59AM  Discussion (6 minutes)

12:05PM  End of Session

Courtesy Reminder
SET PHONES TO VIBRATE
Please take your calls outside the meeting room.

Thank You
11. 12:05 PM - 1:40 PM - Ambassador Ballroom 4-6
Moderator: CDR Erik T. Grossgold, MC, USN

Manthos Resident & Young Urologist
Lunch Program

“Career Transition, Contract Review, Career Search Support, Practice Setup, & Academic Practice Leadership”

Mr. Roger Bonds
President & CEO
PhysicianCareerAdvisor.com

Meet & Greet with Industry
12:05 PM - 1:40 PM
Lunch provided by SGSU
in the Expo Lab
(Food service until 1:15pm)

Complete your Prize Card for the drawing
& get a Scratch Card from each exhibitor for instant prizes!
12 1:40PM  CPT Daniel Mecca, MC, USA

13 1:47PM  LT Ryan Gillis, MC, USN
Association Of Neuropsychiatric Diseases With Bowel And Bladder Dysfunction.

14 1:54PM  LCDR Charles Rinehart, MC, USN
Nephrectomy For Unilateral Nephrogenic Hypertension: A Systematic Review.

15 2:01PM  Capt Clinton Yeaman, MC, USAF
Predictive Factors For Surgery And Urinary Tract Infections For Upper Pole Pathologies In Duplex Kidneys: A Retrospective Review From The Mid-Atlantic Pediatric Consortium.

2:08PM  Discussion (7 minutes)

2:15PM  End of Session
THURSDAY, JANUARY 27, 2022
RESIDENTS COMPETITION 6
Bladder/Urethra & Sexual Medicine
2:50 PM - 3:30 PM- Ambassador Ballroom 4-6
(Papers are seven minutes)
Moderators: LTC Sean Q. Kern, MD, CDR Justin J. Nork, MC, USN
Judges: COL (Ret.) Robert Dean, MD, Joseph Clark, MD, Scott Swanson, MD

16  Cancelled

17  2:50PM  CPT Leah Williams, MC, USA
Is the Use of Loop Preferable to Cold Cup Biopsy for Treatment of Patients with Suspected Non-Muscle Invasive Bladder Cancer?

18  2:57PM  Maj Armand Allkanjari, MC, USAF
Diabetic Bladder Dysfunction in Akita Male Mice Progresses Directly to an Underactive Phenotype.

19  3:04PM  Capt Helal Syed, MC, USAF
Retrospective Long-Term Cohort Analysis of Urologic Malignancy in Microscopic Hematuria Patients After Initial Negative Evaluation with CT Urography and Cystoscopy.

   3:11PM  Discussion (7 minutes)

20  3:18PM  LT Colin McClain, MC, USN
Operating Characteristics of Sperm Concentration and FSH for Predicting Chromosomal Abnormalities.

   3:25PM  Discussion (5 minutes)

   3:30PM  End of Session

FREE AFTERNOON/EVENING
# Outline of Scientific Program

## 68th Kimbrough Annual Seminar * Westin Mission Hills * Rancho Mirage, CA

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM - 2:00 PM</td>
<td>Exhibits Open</td>
<td>Ambassador Bllrm. 1-3</td>
</tr>
<tr>
<td>7:00 AM - 8:15 AM</td>
<td>Networking Breakfast</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>7:00 AM - 3:00 PM</td>
<td>Registration</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>7:00 AM - 5:00 PM</td>
<td>Slide Preview Station</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>8:15 AM - 9:05 AM</td>
<td>Sexual Medicine - Part 1</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>9:05 AM - 10:10 AM</td>
<td>Educational Symposium</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>10:15 AM - 11:15 AM</td>
<td>Refreshment Break</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>11:15 AM - 11:55 AM</td>
<td>Sexual Medicine - Part 2</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>12:00 PM - 1:15 PM</td>
<td>CME Lunch Program</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>1:25 PM - 2:10 PM</td>
<td>Pediatrics/Trans.Urology</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>2:10 PM - 2:20 PM</td>
<td>General Urology</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>2:20 PM - 2:40 PM</td>
<td>Video Session</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>5:00 PM - 5:30 PM</td>
<td>GU Bowl Tailgate Party</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>5:30 PM - 6:30 PM</td>
<td>GU Bowl</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>6:30 PM - 10:30 PM</td>
<td>80’s Night RetroCeption</td>
<td>Ambassador Bllrm. 4-7</td>
</tr>
</tbody>
</table>

---

**7:00 AM Power Up!**

Get energized at the **Network Breakfast in the Expo Lab**

Bring your **Prize Card**
STATE OF THE ART LECTURE
SUPPORTED BY
SEXUAL MEDICINE SOCIETY OF NORTH AMERICA (SMSNA)

Management Challenges and Guidelines in Recurrent Ischemic Priapism.

Hossein Sadeghi-Nejad, MD
Center for Male Reproductive Medicine & Microsurgery, New Jersey

9:00AM Discussion (5 minutes)
9:05 AM End of Session.

SPECIAL SYMPOSIUM PROGRAM

An Evolved Perspective on NUBEQA® (darolutamide) in Non-Metastatic Castration-Resistant Prostate Cancer (CRPC).

William J. Aronson, MD
Professor, UCLA Health Medical Center

Non CME Program Supported by Bayer
Cruise into the Expo Lab
see what's new..

Refreshment & Network Break
10:15am - 11:15am

Visit our exhibitors to win!
Complete your Prize Card

Scratch Card - Get one from each Exhibitor - limited quantities, be sure you get one!

Win
STATE OF THE ART LECTURE
SUPPORTED BY
INTERNATIONAL SOCIETY FOR THE STUDY OF
WOMEN’S SEXUAL HEALTH (ISSWSH)

Female Sexual Medicine: Our Role as Urologists.
Rachel Rubin, MD
Georgetown University Hospital, Washington DC

Discussion (10 minutes) / End of Session.

You are Invited to Attend

CME LUNCH SYMPOSIUM PROGRAM

Navigating the Continuum of Care for Advanced Prostate Cancer (mHSPC, CRPC).
Matthew B. Rettig, MD
Medical Oncologist, Ronald Reagan UCLA Medical Center and VA Greater Los Angeles Healthcare System

This educational activity is supported by medical education grants from AstraZeneca, Janssen Biotech, Inc., administered by Janssen Scientific Affairs, LLC., Merck, Novartis Pharmaceuticals Corporation on behalf of Advanced Accelerator Applications, and Sanofi Genzyme.
FRIDAY, JANUARY 28, 2022

PEDIATRICS / TRANSITIONAL UROLOGY
1:25 PM - 2:10 PM - Ambassador Ballroom 4-6

Moderators:
Janelle Fox, MD, MS, FACS, CAPT Matthew Christman, MC, USN

27 1:25PM  LT Colin A. McLain, MC, USN
Bifid Diphallia Reconstruction.

28 1:30PM  Santhosh Donepudi, MD
The Utility Of Peripheral Sacral Neuromodulation As Part Of A Clinic Protocol For Children With Refractory Bowel And Bladder Dysfunction.

1:35PM  Discussion (5 minutes)

29 1:40PM
STATE OF THE ART LECTURE
Pediatric Urology Update for the General Urologist.

Antoine Khoury, MD
University of California, Irvine

2:00PM  Discussion
2:10PM  End of Session

FRIDAY, JANUARY 28, 2022

GENERAL UROLOGY
2:10 PM - 2:20 PM - Ambassador Ballroom 4-6

Moderator:
CDR John Kehoe, MC. USN

30 2:10PM  LT Matthew Christian, MC, USN
Deep Venous Thrombosis In Urologic Surgery.

2:17PM  Discussion (3 minutes)
2:20PM  End of Session
FRIDAY, JANUARY 28, 2022

VIDEO SESSION

2:20 PM - 2:40 PM - Ambassador Ballroom 4-6

Moderator:
Joseph Clark, MD, Richard E. Link, MD, PhD

31  2:20PM   CPT Brittney Murray, MC, USA
Robotic Approach to Segmental Ureterectomy for Proximal Upper
Tract Urothelial Carcinoma.

32  2:25PM   CPT Victoria Maxon, MC, USA
Robot-Assisted Repair of Complex Benign Distal Ureteroenteric
Strictures Following Radical Cystectomy.

2:30PM   Discussion

2:40PM   End of Session

ENJOY THE AFTERNOON BREAK
until 5:00 PM

CLAIM YOUR CME
by completing the Daily Evaluation Forms
USE LINK
govurology.org
click on “2022 Daily Evaluations”
80's Party

Dance & Flashback with Famous Flashpants Band!

Come in 80’s Gear!

Totally Awesome 80s

Be sure to bring your Green Drink Tickets

Friday Evening Fun!

5:00 PM: Official Tailgate Party - Ballroom Foyer

5:30 PM: GU Bowl - Ambassador Ballroom 4-6

Moderators: Jonathan Berger, MC, USN, LCDR Sable Shew, MC, USN, LCDR Sarah Starosta, MC, USN

6:30 PM: RetroCeption - Ambassador Ballroom

It’s back to the Crazie Eighties!

FOOD * LIVE MUSIC & PERFORMANCE

DO NOT MISS THIS!
SATURDAY, JANUARY 29

Outline of Scientific Program

68th Kimbrough
Annual Seminar * Westin Mission Hills * Rancho Mirage, CA

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM - 5:00 PM</td>
<td>Registration</td>
<td>Ambassador Ballrm. Foyer</td>
</tr>
<tr>
<td>7:00 AM - 5:00 PM</td>
<td>Slide Preview Station</td>
<td>Ambassador Ballrm. Foyer</td>
</tr>
<tr>
<td>7:15 AM - 2:00 PM</td>
<td>Exhibits Open</td>
<td>Ambassador Ballrm. 1-3</td>
</tr>
<tr>
<td>7:15 AM - 8:30 AM</td>
<td>Networking Breakfast</td>
<td>Exhibits/ExpoLabArea</td>
</tr>
<tr>
<td>8:30 AM - 9:15 AM</td>
<td>Consultant Updates</td>
<td>Ambassador Ballrm. 4-6</td>
</tr>
<tr>
<td>9:15 AM - 9:45 AM</td>
<td>Bladder</td>
<td>Ambassador Ballrm. 4-6</td>
</tr>
<tr>
<td>9:45 AM - 10:15 AM</td>
<td>Oncology: Testis</td>
<td>Ambassador Ballrm. 4-6</td>
</tr>
<tr>
<td>10:15 AM - 11:15 AM</td>
<td>Refreshment Break</td>
<td>Exhibits/Expo Lab Area</td>
</tr>
<tr>
<td>11:15 AM - 12:00 PM</td>
<td>Reconstruction</td>
<td>Ambassador Ballrm. 4-6</td>
</tr>
<tr>
<td>12:00 PM - 1:15 PM</td>
<td>CME Lunch Program</td>
<td>Ambassador Ballrm. 4-6</td>
</tr>
<tr>
<td>1:20 PM - 2:30 PM</td>
<td>SGSU Business Meeting</td>
<td>Ambassador Ballrm. 4-6</td>
</tr>
<tr>
<td>2:30 PM - 4:00 PM</td>
<td>Oncology:Kidney/Adrenal</td>
<td>Ambassador Ballrm. 4-6</td>
</tr>
<tr>
<td>4:05 PM - 4:30 PM</td>
<td>Urethral Reconstruction</td>
<td>Ambassador Ballrm. 4-6</td>
</tr>
<tr>
<td>4:40 PM - 6:00 PM</td>
<td>Poster Session/Reception</td>
<td>Ambassador Ballrm. 4-6</td>
</tr>
</tbody>
</table>

7:15 AM - Get fueled at the EXPO LAB Networking Breakfast
Be a Winner! Visit the exhibits for Stickers & Scratch Cards!
33  8:30AM  COL Joseph Sterbis, MC, USA
     State of the Army.

34  8:40AM  COL Joseph Sterbis, MC, USA for Lt Col Christopher
           Allam, MC, USAF
           State of the Air Force.

35  8:50AM  CDR Erik Grossgold, MC, USN
           State of the Navy.

36  9:00AM  Muta Issa, MD, MBA
           State of the USAV.

9:10 AM  Discussion (5 minutes)

9:15AM   End of Session

CLAIM YOUR CME
by completing the Daily Evaluation Forms
USE LINK
govurology.org
click on “2022 Daily Evaluations”
37 9:15AM CPT Timothy W. Wright, MC, USA
Intra-peritoneal Bladder Perforation Presenting As Small Bowel Obstruction In Patient With Chronic Indwelling Catheter.

38 9:20AM
STATE OF THE ART LECTURE
Histological Variants: Diagnosis and Treatment.
Siamak Daneshmand, MD
Keck School of Medicine, USC

9:40AM Discussion (5 minutes)
9:45AM End of Session

39 9:45AM Captain Tarah R. Woodle, MC, USAF
Testicular Cancer In the MHS: Epidemiology, Diagnosis and Treatment.

40 9:50AM
STATE OF THE ART LECTURE
Testicular Cancer: What’s New in Staging, Prognosis and Therapy.
CAPT Sean Stroup, MC, USN
Naval Medical Center San Diego

10:10AM Discussion (5 minutes)
10:15AM End of Session
Refreshment & Network Break in the Expo LAB
10:15am - 11:15am
Coffee - Sodas - Beverages

Win Easy
Win Big

Enjoy the Exhibits
& win some great prizes

★ Bring your Yellow Prize Card
★ Ask for a Scratch h Card
(Physicians & APP/NPs only)

See Hostesses at Exhibit Prize Table for help.
STATE OF THE ART LECTURE
SUPPORTED GENITOURINARY RECONSTRUCTIVE SURGEONS (GURS)

Genitourinary Trauma Management: Insights from the Multi-Institutional Genitourinary Trauma Study Group.

Jeremy Myers, MD
University of Utah

11:50AM Discussion / 12:00PM End of Session

You are Invited to Attend

CME LUNCH SYMPOSIUM PROGRAM

Shifting Paradigms in the Management of Advanced Urothelial Carcinoma.

Ulka Vaishampayan, MD
Chair of Phase I Therapy, GU Medical Oncology, Professor Internal Medicine, University of Michigan

This educational activity is supported by medical education grants from Merck and Seagen, Inc.

SGSU MEMBERS BUSINESS MEETING

1:20pm - 2:30pm - Ambassador Ballroom 4-6

Hear updates on the state of the branches of the Services
STATE OF THE ART LECTURE
Medical and Dietary Approaches to Kidney Stone Prevention.
Manoj Monga, MD
University of California, San Diego
2:50PM Discussion (5 minutes)

EXPERT POINT COUNTERPOINT
Small-Intermediate Renal Masses.
Moderator:
CDR Gregory Chesnut, MC, USN
Panelists:
Richard E. Link, MD, PhD, Baylor College of Medicine
Jaime Landman, MD, FRCS, University of California, Irvine

2:55PM Introduction of the Case
3:00PM Richard E. Link, MD, PhD
RAPNx in Patients with Small-Intermediate Renal Masses.
3:20PM Jaime Landman, MD, FRCS
Active Surveillance in Patients with Small-Intermediate Renal Masses.
3:40PM - 3:50PM Rebuttal (5 minutes each panelist)

Microwave Ablation Of The T1a Small Renal Mass: Expanding Beyond 3 Cm.
3:55PM Discussion (5 minutes)
4:00PM End of Session
SATURDAY, JANUARY 29, 2022

URETHRAL RECONSTRUCTION

4:05 PM - 4:30 PM  - Ambassador Ballroom 4-6

Moderator:
CDR Erik Grossgold, MC, USN

46  4:05PM  CPT David Barham, MC, USA
Urethral Stricture/Stenosis as a Complication of High Intensity Focused Ultrasound of the Prostate (HIFU): What is the Overall Patient Experience?

47  4:12AM

STATE OF THE ART LECTURE
Urethral Stricture Diagnosis and Treatment.

Joel Gelman, MD
University of California, Irvine

4:32PM  Discussion (5 minutes)
4:40PM  End of Session

CLAIM YOUR CME
by completing the Daily Evaluation Forms
USE LINK
govurology.org
click on “2022 Daily Evaluations”
SATURDAY, JANUARY 29, 2022

4:40 PM - 6:00 PM - Ambassador Ballroom 4-6

(5-10 minutes of viewing posters, followed by 2 minute podium presentations)

Moderators/Judges:
CPT Justin Mygatt, MC, USA, LCDR Sarah Starosta, MC, USN,
MAJ Jeremy Kelley, MC, USAF

48 CPT Gina T. Baaklini, MC, USA
Genitourinary Management and Follow-Up for Patients with Stevens-Johnson Syndrome/Toxic Epidermal Necrolysis.

49 LT Paolo Q. Rigo, MC, USN
A Rare Case Of Symptomatic Patent Urachus In An Adult Managed With Surgical Excision.

50 LCDR Timothy J. Algiers, MC, USN
Post-Coital Gross Urethral Bleeding From Cowper’s Gland Syringocele.

51 CPT Brock E. Boehm, MC, USA
Standardized Protocol for Voiding Cystourethrogram: Are Recommendations Being Followed?

52 CPT Jonathan S. Yu, MC, USA
Robot-Assisted Laparoscopic Excision of a Giant Multilocular Prostatic Cystadenoma.
53  ENS Cameron Barruga, MC, USN
Rare Cause Of Male Infertility: 46, XX DSD In A Phenotypically Male, Sry-positive Patient.

54  2LT Isabel Gibson, MC, USA
Ureteropelvic Junction Obstruction In The Elderly: Is Pyeloplasty A Safe Option?

55  CPT Timothy W. Wright, MC, USA
Segmental Infarction Of The Testes In Active Duty Male Soldier.

56  LT Ryan Craig, MC, USN

57  2LT Reilly Carr
Late-Stage Primary Renal Angiosarcoma: An Extremely Rare Cancer Complicated by COVID-19 Postoperatively.

---

**Awards Ceremony**

**In Dedication to Kathy & Preston Littrell**

**ENJOY - FREE EVENING**
### Outline of Scientific Program

**68th Kimbrough Annual Seminar** *Westin Mission Hills* *Rancho Mirage, CA*

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM - 11:00 AM</td>
<td>Registration</td>
<td>Ambassador Bllrm. Foyer</td>
</tr>
<tr>
<td>7:00 AM - 8:00 AM</td>
<td>Continental Breakfast</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>7:30 AM - 8:05 AM</td>
<td>Prostate Cancer</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
<tr>
<td>8:00 AM - 11:00 AM</td>
<td>Mock Oral Boards</td>
<td>Ambassador Bllrm. 1-3</td>
</tr>
<tr>
<td>8:10 AM - 10:25 AM</td>
<td>USAV Session</td>
<td>Ambassador Bllrm. 4-6</td>
</tr>
</tbody>
</table>

---

**FOR CME CREDIT CERTIFICATE**

*Go to the SGSU Website at govurology.org*

*Click on “Print CME Certificate” & Click on “Daily Evaluations”*
SUNDAY, JANUARY 30, 2022

“Hasta La Vista” Continental Breakfast
7:00 AM - 8:00 AM - Ambassador Ballroom 4-6

SUNDAY, JANUARY 30, 2022
PROSTATE CANCER
7:30 AM - 8:05 AM - Ambassador Ballroom 4-6
Moderator:
CDR John Kehoe, MC, USN

58 7:30AM Judd Moul, MD
6-Month Luteinizing Hormone-Releasing Hormone Formulations Are A Good Choice During The Covid-19 Pandemic And Beyond.

59 7:37AM Leigh Mack, MD, PhD
Novel Digital Health Engagement Application in the Setting of Prostate Cancer.

60 7:44AM CPT Melissa Smith, MC, USA
Evaluating Use Of Cognitive-fusion Prostate Biopsy In The Diagnosis Of Clinically Significant Prostate Cancer.
7:51 AM Discussion (5 minutes)
8:05AM End of Session

SUNDAY, JANUARY 30, 2022

MOCK ORAL BOARDS
8:00 AM - 11:00 AM - Ambassador Ballroom 1-3
Director: COL Joseph R. Sterbis, MC, USA

GET PREPPED 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.
8:10 AM  Muta M. Issa, MD, FACS, MBA, President, USAV
Welcome and Introductions

8:15 AM  Stacey Koff, MD
Nocturia- Sleep/Circadian Rhythm.

8:35 AM  Mohit Khera, MD
Andrology Update.

8:55 AM  Minhaj Siddiqui, MD
PCOR Priorities for AS Research.

9:10 AM  Jennifer Taylor, MD
Challenges in Bladder Cancer Management at VA Medical Centers.

9:25 AM  Resident Presentations

Jenna Winebaum
Jonathan Hill, MD, Stephen Savage, MD, Robert Grubb, MD
Outcomes Related To Differences In PSA Velocity In African American Patients Is Not Related To Upgrading.

Zachary Kahlenberg
Ali Antar, MD, Jeffrey Jones, MD
Salvage and Primary HIFU outcomes – MEDVAMC HEAT Registry Query.

Rodney Boit and Austin Kinley
Gui Godoy, MD, Jeffrey Jones, MD
TCGA- Testicular Germ Cell Tumor Interim Clinical Correlations To The Molecular Analyses.

9:50 AM  Discussion and Judging of Resident Presentations

10:05 AM  Michael Crosby, MD
Veterans Prostate Cancer Awareness Summary.

10:10 AM  Muta Issa, MD, FACS, MBA
Summary and USAV Update Report.

10:25 AM  End of Session
Join Us for a
Complimentary CME/CE Live Luncheon Symposium

Navigating the Continuum of Care for Advanced Prostate Cancer (mHSPC, CRPC)

FRIDAY
January 28, 2022
12:15 PM – 1:20 PM PT
Ambassador Ballroom

Lunch will be provided.

Earn up to 1.0 AMA Category 1 Credit™ or 1.0 Contact Hour.

FACULTY
Matthew B. Rettig, MD
Medical Oncologist
Ronald Reagan UCLA Medical Center and
VA Greater Los Angeles Healthcare System

LEARNING OBJECTIVES
After completing this activity, participants will be better able to:
1. Apply expert recommendations for the sequencing of available and emerging hormonal, cytotoxic, immunologic, bone-directed, molecularly targeted, and other novel therapies (alone and in combination) to integrate them safely and effectively into the care of patients with locally advanced and metastatic prostate cancer
2. Assess and implement new therapeutic options for advanced prostate cancer across the disease continuum
3. Incorporate optimal, individualized therapeutic strategies for patients with advanced prostate cancer through exposure to expert insights and recommendations, patient-specific factors, latest best-practice treatment strategies, and recent clinical trial data

Accreditation Information
In support of improving patient care, Rush University Medical Center is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physician/Physician Assistant/Nurse Practitioner
Rush University Medical Center designates this Live Activity for a maximum of one (1.0) AMA PRA Category 1 Credits™. Physicians/Physician Assistants/Nurse Practitioners should claim only credit commensurate with the extent of their participation in the activity.

Nurse
Rush University designates this Live Activity for a maximum of one (1.0) nursing contact hour. This activity will fulfill Category 2 contact hour requirements for pharmacology for ANCC-certified advanced practice nurses.

Pharmacist
Rush University Medical Center designates this knowledge-based Live Activity for a maximum of one (1.0) contact hour for pharmacists.

This educational activity is supported by medical education grants from AstraZeneca, Janssen Biotech, Inc., administered by Janssen Scientific Affairs, LLC., Merck, and Sanofi Genzyme.
Join Us for a Complimentary CME/CE Live Luncheon Symposium

Shifting Paradigms in the Management of Advanced Urothelial Carcinoma

SATURDAY
January 29, 2022
12:15 PM - 1:20 PM PT
Ambassador Ballroom

LEARNING OBJECTIVES
After completing this activity, participants will be better able to:

1. Analyze recent clinical trial data regarding the efficacy and safety of first-line and maintenance therapies for advanced or metastatic urothelial carcinoma.
2. Assess recent clinical evidence surrounding recently approved and emerging second-line and subsequent-line options for advanced or metastatic urothelial carcinoma.
3. Integrate awareness of new therapeutic approaches into the selection of therapy for patients with advanced or metastatic urothelial carcinoma.
4. Identify and manage AEs associated with novel therapies for the treatment of advanced or metastatic urothelial carcinoma.

*Lunch will be provided.

FACULTY
Ulka Vaishampayan, MD
Chair of Phase I Therapy
GU Medical Oncology
Professor Internal Medicine
University of Michigan

Accreditation Information
In support of improving patient care, Rush University Medical Center is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physician/Physician Assistant/
Nurse Practitioner
Rush University Medical Center designates this Live Activity for a maximum of one (1.0) AMA PRA Category 1 Credits™. Physicians/Physician Assistants/Nurse Practitioners should claim only credit commensurate with the extent of their participation in the activity.

Nurse
Rush University designates this Live Activity for a maximum of one (1.0) nursing contact hour. This activity will fulfill Category 2 contact hour requirements for pharmacology for ANCC-certified advanced practice nurses.

Pharmacist
Rush University Medical Center designates this knowledge-based Live Activity for a maximum of one (1.0) contact hour for pharmacists.

This educational activity is supported by medical education grants from Merck and Seagen, Inc.
With the ExoDx™ Prostate Test, a simple urine sample of 15mL is all it takes to provide an additional data point for the prostate biopsy decision.

Now available for Veterans!

“I’m 61 and my PSA stays between 6 – 6.5ng/mL. I’ve always had a normal DRE. I discussed the pros and cons of getting a biopsy with my doctor, and then learned about the ExoDx test. We decided to get the test. My result came back below the cut-point at 10.67, and now he doesn’t want to see me for six months! Thank you for your test!”

Visit us online for more information.
ABSTRACTS
PREPAREDNESS OF UROLOGY RESIDENTS DURING COVID-19
Maj Jessica B. Saeger, MD; LtCol Christopher L. Allam, MD; CPT Daniel Pederson, MS; CPT Eric Coate, PhD; LTC Alexander J. Ernest, MD; San Antonio, TX
(Presentation to be made by Dr. Jessica B. Saeger, MD)

Objectives: It is no question that COVID-19 has caused sacrifices in Graduate Medical Education (GME) in terms of residents missing key procedural experiences. The urology department at Brooke Army Medical Center (BAMC) overall operating room cases decreased by 35% in 2020. The Accreditation Council for Graduate Medical Education (ACGME) responded to this concern by allowing the individual programs to decide whether a resident has the knowledge, skills, and behaviors necessary to enter autonomous practice. Our program has proactively responded in various ways. The purpose of this study is to analyze how COVID-19 has impacted the urology residents at BAMC with key procedures to help determine preparedness for graduation.

Methods and Materials: This is a single institution summary of the urologic operative experience to analyze the number of cases cancelled due to COVID-19, types of cases cancelled, and compare recent graduate case logs to those of prior 5 years unaffected by COVID-19 (2015-2019).

Results: In 2021 alone, as of September, BAMC has had 4,269 symptomatic COVID diagnoses, 1,116 positive universal admissions screening, and 568 positive pre-procedure screening. In 2021, there have been two surges where cases have been cancelled, one at the beginning of the year lasting through the end of February and the second beginning the end of August. There were 259 cases cancelled in 2021 with 75 (28.96%) being cancelled due to the COVID surge, 8 (3.09%) due to testing COVID positive, and 1 (0.38%) due to passing away from COVID. 25% of these cancelled were pediatric cases, 23.75% scrotal/adult circumcisions, 16.25% TURPs, 15% stones, 8.75% reconstructive, 8.75% DVIUs, 5% TURBTs, 4% robotic/laparoscopic, 2.5% Interstims, and 1.25% suprapubic tube placement. The BAMC urology program responded by increasing civilian rotations for the PGY-4 and PGY-5 residents. The 2021 graduating class overall case logs were compared with the graduates from 2015-2019. The most recent graduates had an overall average of 6.75 cases less than the average of the previous 5 classes, still reaching 99.4% of the total case volume. In terms of the case type breakdown, they had an average of 14 less general urology cases, 12 less endoscopic cases, 9 more reconstructive cases, 16 less oncology cases, 27 more minor pediatric cases, 13 less major pediatric cases and 12 more laparoscopic/robotic cases.

Conclusions: The pandemic has created many challenges to GME. Analysis of cases cancelled and case logs have highlighted differences between recent graduates and prior classes, however. overall case volume has been similar as a result of program changes. We have well exceeded minimum case requirements and are continuing to respond to this challenge to produce residents prepared for graduation and
FINANCIAL IMPACT OF UROLOGIC CONDITIONS IN MEN AND WOMEN IN BELIZE

Clinton T. Yeaman, MD, Capt, USAF, Devang Sharma, MD, Raj Desai, MS, Rajesh Balkrishnan, PhD, David Rapp, MD
Charlottesville, VA

(Presentation to be made by Dr. Clinton Yeaman)

Introduction/Objective: Urologic disease (UD) is highly prevalent in low- and middle-income countries (LMIC). Concurrently, the inability to maintain employment or provide care for family are significant factors that contribute to extreme poverty in these countries. The impact of urologic disease on economic productivity and caretaking responsibilities in developing countries is poorly understood.

Methods: The study aim was to perform a formal assessment of the financial impact of UD in Belize. Accordingly, we conducted a prospective survey-based study of patients treated during three separate global health trips from 2019-2021 with the charity Global Surgical Expedition. Patients completed a 17-item survey with focus on urologic disease, work and caretaking responsibilities, and financial data. Items from the validated Work Productivity and Activity Impairment Questionnaire (WPAI) were used to assess financial impact.

Results: A total of 114 patients completed surveys, with presenting UD category including female (pelvic organ prolapse and urinary incontinence) (41.4%), LUT obstruction (BPH/urethral stricture)(28.4%), urolithiasis (19.8%) and oncology (7.7%) Overall, 87.7% and 36.8% of respondents reported a negative impact of UD on job and caretaking responsibilities, respectively. Nine (7.7%) patients were unemployed secondary to their UD. Of 114 patients, 61 (%) were employed and provided financial data sufficient for analysis. In this cohort, mean percent work time missed and percent impairment while working due to UD was 21.8% and 42.0%, respectively. Mean weekly income was BZ $461 BZD (approximately $230.50 USD). Accordingly, the percent overall work impairment resulted in $59.10 BZD per capita in lost potential income per week. This represents a loss of 12.8% of total income attributable to UD. 88.6% of patients reported that cure of UD would increase ability to work and/or care for family.

Conclusion: In Belize, UD results in significant impairment and time missed as related to work and caretaking responsibilities. This impairment is associated with a significant level of lost income. Focused efforts are necessary to provide urologic surgeries in developing countries as not only do they impact quality of life but also deleteriously impact financial health of patients and families.

Source of Funding: University of Virginia Center for Global Inquiry and Innovation
UTILITY OF SELECTMDX AND MULTIPARAMETRIC MAGNETIC RESONANCE IMAGING IN THE DETECTION OF PROSTATE CANCER: A RETROSPECTIVE SINGLE CENTER ANALYSIS

Cassandra Lyons MD, Timothy Algiers MD, Matthew S Christman, MD, Justin Degrado MD, and Sean P. Stroup MD
San Diego, CA (Presentation to be made by Dr. Lyons)

Objectives: Prostate-specific antigen (PSA) and digital rectal exam (DRE) alone lack the desired sensitivity and specificity to drive biopsy recommendations for men and often leading to over-diagnosis and treatment. Secondary urine assays, such as SelectMDx, have been reported to improve risk stratification and reduce unnecessary biopsies. The goal of this retrospective study was to determine the clinical utility of incorporating SelectMDx into a diagnostic algorithm for the detection of csPCa in a population of men being followed at our institution.

Methods: The NMCSD Registry of Urologic Diseases: Oncology, was queried for patients who underwent SelectMDx testing at our institution between 2018 and 2021. Other clinicopathological variables such as age, PSA, prostate volume, PSA density, mpMRI PIRADS score, and prostate biopsy pathologic data were also included. Appropriate statistical tests were used to evaluate associations between variables of interest. Patients were categorized as Very Low Risk (VLR) or High Risk (HR) based on Select MDx test results. VLR implies a 98% negative predictive value (NPV) of PCa and a 99.6% NPV of csPCa. Secondary analyses were used to determine the sensitivity and specificity of SelectMDx in predicting a concerning mpMRI (PIRADS 4 or 5) and a positive biopsy result.

Results: A total of 99 men underwent SelectMDx testing at Naval Medical Center San Diego between 2018 and 2021. SelectMDx indicated a VLR of prostate cancer in 40 men and HR in 59 men. Among VLR and HR patients, the mean age was 60.65 vs 66.02 (p=0.001), the mean PSA was 6.05 ng/ml vs. 8.199 ng/ml, the mean PSA density was 0.112 ng/ml vs. 0.182 ng/ml, and the mean prostate volume was 60.3 ml vs. 51.5 ml (p=0.001). Of 40 men in the VLR group, 39 (97%) underwent mpMRI, with PIRADS 1, 2, and 3 lesions found in 34 (87%) and PIRADS 4 or 5 lesions found in 4 (10%). Compared to biopsy, MRI had a 43% specificity and NPV of 76%. Of the 59 in the HR group, 50 (85%) underwent mpMRI and PIRADS 1, 2, or, 3 lesions were found in 36 (72%) while PIRADS 4 or 5 lesions were found in 14 (23%). In the HR group, MRI had a negative predictive value (NPV) of of 90%. A positive Select MDx HR result was useful at predicting a concerning mpMRI with a PIRADS 4-5 lesion (78% sensitivity and 56% specificity). Overall 7 (17%) of the VLR and 47 of the HR (75.8%) underwent prostate biopsy, with 1 (14%) patient having cancer detected in the VLR group vs. 17 (36%) in the HR group, with a resulting overall sensitivity of 94.7% and specificity of 17% for detection of PCa across VLR and HR groups. We also found significant utility in the composite clinical parameter of HR SelectMDx and PIRADS 3, 4, or, 5 lesions, to find prostate cancer on biopsy with a 100% sensitivity and a 43% specificity for detection of PCa on prostate biopsy with a NPV of 100% compared to 85% with SelectMDx alone.

Conclusions: In our study, SelectMDx alone had an overall NPV of 85%, which is in line with previously published data. When combined with mpMRI showing PIRADS 3, 4, 5 lesions, the NPV increased to 100%. Our data suggest that biopsy can be safely avoided in men who are determined to be VLR by SelectMDx, or HR men with low risk MRI. Based on our data, we have found that using a clinical diagnostic algorithm that incorporates initial SelectMDx followed by mpMRI as primary screening and secondary screening tests patients with an elevated PSA, is helpful in risk stratifying patients most likely to have a positive prostate biopsy and csPCa, while safely avoiding unnecessary biopsies.

Source of funding: None

PAPER #4

67
Objectives: During evaluation for prostate cancer, transrectal ultrasound-guided (TRUS) 10-12 core systematic needle biopsy is considered the standard of care. However, this has a well-documented accuracy concern, missing clinically significant cancer while over detecting indolent disease. Multi-parametric MRI-ultrasound fusion techniques aim to improve biopsy selection and accuracy, and are gaining traction in urology practices nationwide. We report our early experience with MRI-TRUS fusion biopsy at the largest military treatment facility (MTF).

Methods: Utilizing a prospectively maintained prostate biopsy registry, we present data on the initial experience with MRI-TRUS fusion biopsy (Uronav platform) with accompanying standard biopsy at our institution between Nov 2020 and Aug 2021. Primary measures included cancer detection rates (CDR), PI-RADS predictability, and the clinical effectiveness of MRI-TRUS fusion biopsies versus standard biopsies. Clinically significant (CS) cancer was defined as grade group 2 (GG2) or higher. Patients in whom targeted biopsy potentially shifted clinical decision-making were of particular interest.

Results: In total, 73 men with PIRADS 3-5 lesions have undergone MRI-TRUS fusion biopsy with synchronous systematic 12-core biopsy of the prostate. 49 men had a history of prior biopsy, 20 of which were on active surveillance, and 24 were biopsy naïve. The median age was 62, median prostate volume was 48cc, median PSA of 5.41 ng/ml, and median PSA density of 0.096. Overall, targeted biopsy and standard biopsy noted CS cancer in 23% and 22%, respectively. CS disease was found in 4%, 19% and 75% of PIRADS 3, 4, and 5 lesions, respectively. In biopsy naïve patients, CS disease was found in 22%, 47% and 100% of PIRADS 3, 4, and 5 lesions, respectively. In biopsy naïve patients, clinical decision-making was altered in 17% due to findings of CS disease on targeted biopsy. Only 1/20 active surveillance patients and 1/29 prior negative biopsy patients found CS cancer on targeted biopsy alone.

Conclusions: Biopsy naïve patients benefited most from targeted vs standard biopsy. However, our early MTF experience with MRI-TRUS fusion biopsy in previous negative biopsy and active surveillance patients has demonstrated less diagnostic value than previously reported.
COMPARING ARTIFICIAL URINARY SPHINCTER OUTCOMES IN MEN WITH AND WITHOUT PRIOR SLING SURGERY

LT Brian H. Vaught*, M.D., Kurt A. McAmmon*, M.D.: Norfolk, VA (Presentation to be made by Dr. Brian Vaught)

Objectives: The Artificial Urinary Sphincter (AUS) is considered the gold standard surgery for post-prostatectomy incontinence (PPI), and is favored over sling placement for severe incontinence, in AUA/SUFU and EAU guidelines. With the lower success rates of slings compared to AUS, especially for severe PPI, some men who are treated with a sling later undergo an AUS after the sling fails to adequately treat their incontinence. Prior sling surgery could potentially make AUS placement more difficult and raise the risk of complications or rate of revision surgery. Prior research on AUS after slings is limited and with mixed results. The purpose of this study is to compare outcomes of AUS in men with and without a prior sling.

Materials and Methods: We performed a retrospective chart review identifying patients who underwent primary AUS placement from Jan 2011 through Jan 2021 by multiple surgeons in our group. This population was divided into two groups: one with a history of sling placement prior to AUS, and the second group with no prior history of sling. Baseline characteristic recorded included age, history of prostatectomy, radiation, and urethral stricture or stenosis treatment. The primary outcomes were incidence and mean time interval until any revision or explantation surgery. Secondary outcomes were operative time and success rates defined by pads per day and patient reported satisfaction.

Results: 145 patients underwent primary AUS (AMS 800™, Boston Scientific) placement from Jan 2011 – Jan 2021. 22 of these patients (15.3%) previously had a sling placed, of which the majority were the Advance™ (Boston Scientific). The remaining 123 (84.8%) had no history of sling placement. The median time from sling to AUS was 51.5 months. The median follow-up interval was 28 months for the first group and 40 months for the second group. In the first group, 6 patients required a return to the OR at any time (27.3%), while in the second group, 39 patients required a return to the OR at any time (31.7%) (p=0.172). The mean time interval from AUS placement to return to the OR was 33.3 months in the first group and 17.4 months in the second group (p=0.057).

Conclusions: There was no statistically significant difference in incidence or time interval until revision or explantation after AUS when comparing patients who previously underwent a sling to those who had not.

Source of Funding: None
Racial Disparities in Female Reconstructive Surgery Procedures
(Presentation to be made by Dr. Toritsetimiyin E-nunu)

Objectives: Racial disparities have been demonstrated to exist in various aspects of many surgical procedure types, but the extent of this in female pelvic reconstruction is not well established. We sought to evaluate the differences between racial groups in surgical procedure types, patient characteristics, and 30-day postoperative outcomes for sling and prolapse procedures.

Materials and Methods: We analyzed data from the American College of Surgeons National Surgical Quality Improvement Project from 2013-2019. We identified patients undergoing sling procedures, with or without prolapse repair, using Common Procedural Terminology codes. We stratified patients based on race/ethnicity, frailty, and procedure type. Outcomes and complications within thirty days were analyzed.

Results: A total of 47,774 women underwent sling placement. 15,189 had isolated sling procedures, 12,498 underwent sling placement with concomitant prolapse repair (excluding hysterectomy), and 20,087 underwent sling placement and prolapse repair including hysterectomy. Non-hispanic white women comprised 60.9% of the total population, but only 53.5% of isolated sling patients while also encompassing 65.7% of the hysterectomy with sling group. The prevalence of frailty was lower in white non-hispanic women than others (7.0% vs. 8.5%, p<0.0001). White non-hispanic women were more likely to stay overnight (63.2% vs. 53.1%) postoperatively.

Conclusions: White non-hispanic women were more likely to undergo procedures of higher complexity, were less frail, and more likely to have an inpatient stay postoperatively in this nationwide study.

Source of Funding: None
Objectives: Renorrhaphy suture depth and suture compression pressure have an unknown effect on renal ischemia after partial nephrectomy. These modifiable renorrhaphy techniques could be an unaccounted factor in nephron preservation for partial nephrectomies. We sought to evaluate these factors in a rabbit model.

Materials and Methods: Left, lower pole, partial nephrectomies were completed in 12 rabbits with a standard diameter and depth of 1cm. Renorrhaphies were performed at a depth of 5mm or 10mm beyond cut edge at a compression pressure of either 0.04lbs or 0.08lbs. The two-variable model allowed for three rabbits in each intervention group (i.e. same depth, same pressure). Rabbits were survived for 14 days after the partial nephrectomy and then returned to the operating room where the left kidney was harvested for histologic evaluation.

Results: Maximum depth and width of ischemia was evaluated in nephrectomy specimens by a Pathologist using standard H&E staining techniques. Histologic suture depth was recorded for additional objective evaluation of intended variable assignment. There was no significant association between suture depth and depth of ischemia. Statistical significance was found with higher ischemia depth and lower applied renorrhaphy pressure. Three partial nephrectomy specimens that were sent for control analysis revealed no baseline renal disease.

Conclusions: This study introduces two variables of renorrhaphy reconstruction that affect degree of nephron ischemia in a pilot rabbit model. Renal hematoma or absence of tissue apposition allowing for renal perfusion could explain our results. Further studies are warranted to evaluate the clinical implications of our histologic findings.

Source of Funding: None
APUL STUDY: APPLE CIDER VINEGAR FOR PREVENTION OF URINARY LITHIASIS

Christine M. Herforth MD, Zhengran Jiang MD, Benjamin H. Baker MD, Matthew Christman MD; San Diego, California
(Presentation to be made by Dr. Jiang)

Introduction: Urolithiasis remains a common disease seen by urologists. With its incidence on the rise, fluid and dietary management remains the cornerstone of therapy for stone prevention. Efforts to increase urinary citrate, a well-known stone inhibitor, are commonly recommended to prevent stones. Potassium citrate is an oral supplementation that is often prescribed, but compliance is weakened by adverse effects, most commonly, gastrointestinal upset. Various citrate-containing drinks including lemonade, orange soda, and coconut water have been suggested as more tolerable alternatives to increase urinary citrate and thus stone prevention. Apple cider vinegar (ACV), a beverage gaining popularity in the public’s eye as a metabolic booster, antioxidant, and blood sugar management, has never been investigated on its urinary citrate effects.

Methods: The study was built using design of experiments methodology. Four different drinks, ACV, lemonade, citric soda, and coconut water, were tested for its effect on urinary citrate levels. Using a nested crossover design, each participant was exposed to two randomized drinks with three 24-hour urinary collection and comprehensive metabolic panel collected throughout the study. Baseline data was collected at enrollment. The second collection occurred following one week of daily exposure to the first drink, then the third collection occurred after a week of exposure to the second drink. There was a 2-week washout period between exposure one and exposure two. Tolerance, and compliance were monitored through a daily log. Each drink was standardized to 1 liter of volume, with 2 tablespoons of ACV diluted with 1L of water. Study participants were volunteers aged 18-65 years old without history of urolithiasis or chronic kidney disease. Baseline and experimental urine/serum values were used compared means with standard deviation and paired T-test.

Results: Seventeen participants enrolled in the study. Of these, 16 participants completed both exposures and one participant completed only one exposure. Five participants were exposed to ACV, four to coconut water, seven to lemonade, and five to citric soda. Compared to the baseline, there was no significant increase in urinary citrate after one week of ACV (mean difference 14.6±115.95, P=0.60). There was also no significant increase between pre- and post-exposure urinary citrate in the group of participants who had lemonade (mean diff 51.29±228.56, P=0.28). There was a significant increase between pre- and post-exposure urinary citrate in the participants who had coconut water (mean difference of 364.45±286.85, P=0.042) and citric soda (mean difference of 139±80.04, P=0.02)

Conclusions: We found no statistically significant improvement in urinary citrate levels after one week of ACV consumption. According to our study protocol, participants only gained 0.087 mEq of citrate per day by consuming ACV, which was the lowest quantity amongst the four test groups. The quantity of ACV chosen for this study was limited based on palatability as directed by dietitian recommendations to achieve a palatable drink for maximum compliance. Citrate supplementation could have been increased by increasing ACV content, but there was concern for noncompliance due to sour taste. Lemonade, despite having the highest citrate mEq per serving, did not show an increase in urinary citrate. This finding compliments the current mixed results in the literature regarding the efficacy of lemonade in augmenting urinary citrate and challenges the common recommendation given to stone formers to drink lemon containing beverages. In contrast, urinary citrate levels did increase with coconut water and citric soda corroborating previous studies. Limitations of this study were poor enrollment which we suspect were due to the time requirement to complete three 24-hour urine collections as well as hesitation to drink ACV. Despite these limitations, our participants had no issues with palatability. Future studies may include increasing the ACV content or testing other ACV-containing products such as gummies or tablets.
DECREASED PERCENT CHANGE IN RENAL PELVIS DIAMETER CHARACTERIZES UNILATERAL URETERO-PELVIC JUNCTION OBSTRUCTION COMPARED TO NORMAL KIDNEYS ON DIURETIC FUNCTIONAL MAGNETIC RESONANCE UROGRAPHY

Karmon Janson M.D., Daniel Mecca M.D.

Presented : Daniel Mecca M.D.

Background: A well-established definition of obstruction in the setting of congenital hydronephrosis is lacking. Multiple imaging modalities and radiographic characteristics or parameters have been described to help confirm the diagnosis of ureteropelvic junction obstruction (UPJO). We sought to evaluate the change in axial anterior-posterior renal pelvic diameter (RPD) following furosemide administration in patients with unilateral hydronephrosis and confirmed UPJO on functional magnetic resonance urography (fMRU) who underwent pyeloplasty.

Methods: There were 64 patients who met inclusion criteria, (18 females, 46 males; aged 3 months to 15 years; median age 9.1 months) from January 2006 until November 2020, diagnosed with unilateral hydronephrosis (SFU Grade 3-4) who obtained fMRU prior to pyeloplasty for confirmed UPJO. The obstructed (operated) kidney RPD was compared to the contralateral non-obstructed kidney which served as an internal control. A weight-adjusted dose of 1 mg/kg of furosemide (max 20mg/kg) was administered intravenously. The RPD was measured before and at approximately 15 minutes after furosemide injection.

Results: The average RPD before furosemide injection was greater 27.2 mm (+/- 1.3) in the obstructed kidney and 5.2 mm (+/- 0.4) in the non-obstructed kidney. Following administration of furosemide, the average RPD was 32.2 mm (+/- 1.3) in the obstructed and 8 mm (+/- 0.5) in non-obstructed patients. The average % RPD change for the non-obstructed kidney was 80.9% RPD change while the obstructed kidney was 27.4% following diuretic injection (p <0.0000043).

Conclusions: The decreased percent change in RPD on fMRU following administration of furosemide in the setting of UPJO may serve as another predictive characteristic of obstructed kidneys. Renal physiological changes associated with this finding are currently being evaluated.
ASSOCIATION OF NEUropsychiatric Diseases WITH BOWEL AND BLADDER DYSFUNCTION

CAPT Matthew Christman MC USN1, Karen Tannenbaum2,3,* 2,3,*, LT Ryan Gillis MC USN1,2,3,* LCDR Nicholas Rocco MC USN1, LTC Patricia Rohrbeck MC USAF2,3,* Naval Medical Center San Diego,2 Naval Health Research Center,3 Leidos Inc., San Diego, CA (Presentation to be made by LT Ryan Gillis)

Objectives: Currently, no large-scale studies exist regarding voiding dysfunction and elimination dysfunction disorders with neuropsychiatric illnesses in a military pediatric cohort. This study offers critical information to better understand and elucidate the health and wellbeing of military-connected children, and may be generalized to civilian cohorts to extend scientific understanding of the hypothesized relationship between neuropsychiatric illness and elimination/voiding disorders.

Methods: A retrospective cohort study was conducted using data between 2007-2019 from the Military Health System database. Specifically, pediatric patients 4 to 12 years old with at least two outpatient encounters and no more than 120 days between visits from Naval Hospital Camp Pendleton or Naval Medical Center San Diego were included in the current analyses. Descriptive statistics were used to describe the population and to evaluate the prevalence of comorbid voiding/elimination dysfunction disorders and mental health conditions.

Results: In total, 16,877 patients (51% male, 49% female) were identified for inclusion. Prevalence of attention deficit disorder (ADD), attention deficit hyperactivity disorder (ADHD), anxiety, autism, depression, and oppositional defiant disorder (ODD) during the study period were 2.4%, 9.2%, 1.6%, 1.5%, 0.8%, and 0.8%, respectively. Chi-square tests were used to evaluate associations between elimination disorders (i.e., encopresis, constipation), voiding disorders (i.e., enuresis, urinary frequency, urinary incontinence, dysuria, and urinary urgency), urinary tract infections, and mental health conditions (see Table). Elimination dysfunction disorders were significantly more common in patients with ADHD, anxiety, and autism. Voiding dysfunction disorders were significantly more prevalent in patients with ADHD, anxiety, and depression. UTIs were significantly associated with ADD diagnoses. Patients with ODD had no significant associations with the urologic diagnoses included in this study.

Conclusion: Several neuropsychiatric disorders appear associated with bowel and/or bladder dysfunction. This study will inform clinical practice, addressing overall physical and mental health among children in military families. This work will be expanded to include DoD-wide pediatric cohort data, and will include additional ICD-9/ICD-10 codes on military and general life experiences (e.g., parent deployments and separations, adverse childhood experiences) additional mental health concerns (e.g., PTSD), and other urologic diagnoses to explore associations across diagnostic categories of interest.

<table>
<thead>
<tr>
<th></th>
<th>ADD n=402</th>
<th>ADHD n=1,551</th>
<th>Anxiety n=278</th>
<th>Autism n=257</th>
<th>Depression n=143</th>
<th>ODD n=128</th>
<th>Overall N=16,877</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elimination Dysfunction</strong></td>
<td>2.4% (10)</td>
<td>3.1% (48)</td>
<td>4.3% (12)</td>
<td>7.0% (18)</td>
<td>2.8% (4)</td>
<td>0.7% (1)</td>
<td>1.9% (313)</td>
</tr>
<tr>
<td><strong>Voiding Dysfunction</strong></td>
<td>2.2% (9)</td>
<td>3.2% (50)</td>
<td>4.3% (12)</td>
<td>3.5% (9)</td>
<td>5.6% (8)</td>
<td>3.9% (5)</td>
<td>2.0% (333)</td>
</tr>
<tr>
<td><strong>UTI</strong></td>
<td>2.7% (11)</td>
<td>1.3% (20)</td>
<td>1.3% (5)</td>
<td>2.7% (7)</td>
<td>2.8% (4)</td>
<td>2.3% (3)</td>
<td>1.2% (208)</td>
</tr>
</tbody>
</table>

Source of Funding: Clinical Investigation Department Grant, NMCSMD
Objective: Renal hypertension is the most common cause of pediatric hypertension. The efficacy of surgical intervention for nephrogenic hypertension is ill-defined. In this review, we synthesize the available evidence on the effectiveness of nephrectomy for unilateral pediatric nephrogenic hypertension.

Materials and Methods: A search was conducted of the Ovid MEDLINE and PubMed databases. Only full-text, peer-reviewed articles written in the English language and involving greater than three reported pediatric cases per publication were included. Three authors independently extracted data and assessed strength of evidence for each study.

Results: We found 11 retrospective, single institution case series that met selection criteria describing 137 patients with chronic hypertension due to nephrogenic causes. The nephrogenic causes leading to nephrectomy included multicyclic dysplastic kidney (MCDK), vesicoureteral reflux (VUR), ureteropelvic junction obstruction (UPJO), chronic pyelonephritis, renal atrophy and nonfunctioning kidney. Mean age at the time of surgery was 5.1 years. Open nephrectomy was the technique used in majority of the study patients. After surgical intervention complete, partial and no response was seen in 48 (57.8%), 20 (24.1%) and 15 (18.1%) patients respectively.

Conclusions: Nephrectomy appears moderately successful in treating unilateral nephrogenic hypertension. These patients may benefit from early nephrectomy to reduce the morbidity from high blood pressure and hypertensive medication. Multicenter prospective studies are needed to further elucidate these findings.
Introduction/Objective: Duplex kidneys account for 5-7% of antenatal hydronephrosis cases. Management of upper pole pathologies can be quite variable based on provider preference. Therefore, we aimed to describe practice patterns from various institutions, and more specifically, aimed to identify clinical predictors of surgical intervention and urinary tract infection (UTI).

Methods: We conducted a retrospective review of patients between 2015-2020 treated at 4 institutions in the Mid-Atlantic. Inclusion criteria included patients with a duplex kidney. Demographic and clinical information were obtained. The primary outcome was surgical intervention. Secondary outcome included UTI. Multivariate logistic regression was used to identify predictors of surgical intervention and UTI based upon demographic and clinical characteristics. Linear regression was used to identify clinical predictors for UTI events. Descriptive statistics and regression modeling analyses were performed using SAS.

Results: 223 patients were included with a total of 250 duplex renal units. 165 (74.0%) were female and 58 (26.0%) were male. Of the males, 40 (69.0%) were circumcised. The most common upper pole pathology was ureterocele, affecting 45.2% of renal units. 39.6% were found to have lower pole vesicoureteral reflux. 78.0% of patients were on antibiotic prophylaxis in the first year of life and decreased to 54.2% after 1 year. 67 (30%) patients had a total of 120 confirmed UTI events. Of those who had at least one UTI, patients had an average of 1.8 UTI events. 140 (62.7%) patients required surgical intervention and underwent a total of 206 surgeries, with incision of ureterocele being the most common intervention. Obstruction was the most common indication for surgical intervention. Complications in this cohort were uncommon. Hydronephrosis grade (both SFU and UTD) and number of prior UTI events were statistically significant predictors for surgical intervention (p=0.018/0.001 and p=0.01 respectively) on multivariate regression. Circumcision was significantly associated with decreased UTI risk (p=0.03); grade of hydronephrosis did not change the UTI risk. On linear regression modelling, treatment with antibiotic prophylaxis after the first year of life was associated with decreased risk of further UTI events (p=0.03); however antibiotic prophylaxis within the first year of life did not decrease UTI risk (p=0.12).

Conclusion: Management of upper pole pathologies in duplex renal systems are heterogeneous, driven by an array of clinical features. Hydronephrosis grade and UTI events are significant predictors for surgical intervention. Circumcision and antibiotic prophylaxis after one year of life are protective against UTI events. Identification of these risk factors associated with duplex pathologic states aids in standardization of care practices to reduce long-term UTI risk.

Source of Funding: N/A
CANCELLED
**IS THE USE OF LOOP PREFERABLE TO COLD CUP BIOPSY FOR TREATMENT OF PATIENTS WITH SUSPECTED NON-MUSCLE INVASIVE BLADDER CANCER?**

Leah E. Williams M.D., Tarah Woodle M.D., Eric Umbreit M.D  
(Presentation to be made by Dr. Leah Williams)

**Introduction:** Non-muscle invasive bladder cancer (NMIBC) is recognized for its high recurrence rate often requiring repeat transurethral resection of bladder tumor (TURBT). Research has been performed to identify risk factors as well as therapeutic treatments to reduce the risk of recurrence of disease in this patient population.

**Objective:** This study analyzed the effects of cold-cup resection vs loop resection during TURBT for non-muscle invasive urothelial carcinoma of the bladder on recurrence at first surveillance cystoscopy. Secondary outcomes include overall recurrence rate, time to first recurrence, identification of other factors associated with risk of early recurrence and characterization of the clinical practice patterns in treatment of bladder cancer within a single institution.

**Methods:** This was a retrospective cohort study of all TURBTs performed for on non-muscle invasive bladder cancer from JAN 2016 to JAN 2021 in a single military institution. Patient’s undergoing TURBT for definitive treatment of new or recurrent NMIBC were included. Patient were excluded if they have benign or non-urothelial pathology, muscle invasive disease, or synchronous upper tract urothelial carcinoma. The patients were assessed by demographic data, imaging, surgical technique, pathology, use of perioperative chemotherapy, and recurrence at first surveillance cystoscopy.

**Results:** 500 TURBTs were performed from JAN 2017-JAN2021. The first 2 years approximately 200 TURBTS of TURBT were reviewed for this preliminary study. Of those eligible TURBTs performed, 42% were diagnosed with NMIBC, 67% were Low Grade, 33% High Grade, 87% Ta, 13% T1, 4% CIS. Recurrence was noted in 35% of patients who had resection performed by cold cup biopsy forceps and 29% of patients in the loop cohort at first surveillance cystoscopy. When subgroup analysis was performed based on grade and stage of disease, the largest difference was in patients with multifocal disease; which demonstrated 50% recurrence rate in cold cup cohort vs 37% recurrence rate in loop cohort. The average time to first recurrence was 6 months in cold cup cohort and 10 months in the loop cohort. Overall average time to first surveillance cystoscopy was 4.8 months within our institution.

**Conclusion:** In preliminary analysis, there was increased recurrence in patients with multifocal disease and TURBT performed by cold cup resection. There was a longer time to first recurrence in the loop resection cohort 10 months vs. 6 months in the cold cup cohort. This may help guide surgeons’ patient selection based on for resection technique during TURBTs. Further analysis is needed to identify whether there is a difference in progression and survival.
Objective: Diabetic Bladder Dysfunction (DBD) is a common complication of diabetes that may present with urinary frequency and urgency (i.e. overactive bladder (OAB)), detrusor underactivity and bladder decompensation (underactive bladder (UAB)), or some combination thereof. In an effort to define the etiology of this complication and develop models of its development, we have characterized the appearance of DBD in Akita Type 1 diabetic mice. Beginning with the female, which develop less severe diabetes, we demonstrated a transition from OAB at 15 weeks to UAB at 30. The purpose of this study is to explore the progression of DBD in the male mice of this diabetic model. We also explore a role for inflammation in this progression.

Materials and Methods: Four groups of mice (non-diab/NLRP3−/−, non-diab/ NLRP3+/+, diab/NLRP3−/−, and diab/NLRP3+/−) were evaluated at four different ages, 7, 10, 15 and 30 weeks. Awake, restrained cystometry was performed 7 to 9 days after suprapubic tubes (SPT) were implanted in the bladder. Blood glucose levels were measured prior to SPT placement. The extravasation of Evans blue dye assessed inflammation in the bladder. All parameters were assessed by ANOVA followed by Student-Newman-Keul's post-hoc using GraphPad InStat software (La Jolla, CA). Statistical significance was defined as p<0.05.

Results: Male mice at 7 weeks showed dramatically increased blood sugar at levels >500 mg/dL which were sustained through 30 weeks of age. In contrast, blood glucose in female diabetic mice are ≈280 mg/dL during this time. At 7 weeks we found there was no difference in void volume or urinary frequency between diabetic and non-diabetic mice (n=8,9). Beginning at 10 weeks the diabetic mice develop signs of UAB with a 55% decrease in urinary frequency and a 240% increase in void volume (n=9/11). At 15 (n=7/6) and 30 weeks (n=10/4) the decrease in frequency was similar (62% and 67%) as was the increase in void volume (305% and 312%). Surprisingly, unlike the females, deletion of the NLRP3 gene did not significantly affect any cystometric parameters. Using Evans blue, we confirmed that inflammation was triggered in the bladder by diabetes and was blocked by deletion of NLRP3. In summary, DBD in male Akita mice presents initially as UAB and this pathophysiology does not change over time. While direct development of UAB is correlated with severity of hyperglycemia, NLRP3-dependent inflammation does not seem to play a dominant role.

Conclusions: Development of DBD in male Akita takes a significantly different trajectory from the female suggesting, besides NLRP3-mediated inflammation, alternative pathways can mediate the development of DBD.

Funding: NIDDK (R01DK117890)
PAPER #19
RETROSPECTIVE LONG-TERM COHORT ANALYSIS OF UROLOGIC MALIGNANCY IN MICROSCOPIC HEMATURIA PATIENTS AFTER INITIAL NEGATIVE EVALUATION WITH CT UROGRAPHY AND CYSTOSCOPY
(Presentation to be made by Dr. Helal Syed)

Objectives: The vast majority of microscopic hematuria (MH) patients have a negative initial evaluation; however, it is unknown if these patients' malignancy risk remains elevated. The purpose of our study is to identify whether MH patients with a negative initial evaluation still have an elevated risk for urinary carcinoma.

Methods: In this IRB approved study, the Military Health System (MHS) Management Analysis and Reporting Tool retrospectively identified adult patients with an MH ICD code who had an initial negative work-up of cystoscopy and CT urography (CTU) for malignancy and at least 35 months of clinical care. MH patients were matched by age, gender, smoking status and follow-up time to hematuria naïve control patients in a 1:1 ratio. Cases and controls were identified who subsequently developed bladder, renal, ureteral cancer, or any of the following hematuria codes: additional microscopic unspecified or unspecified hematuria, and gross hematuria. Descriptive statistics and chi-square tests were analyzed.

Results: 8,826 MH and 8,826 control patients comprised our study. Case/control percentages of patients with any urinary cancer, or subdivided by bladder, renal, and ureteral cancers showed no statistically significant difference: 0.78%/0.93% (p-value = 0.29), 0.50%/0.53% (p-value = 0.75), 0.31%/0.42% (p-value = 0.21), 0.02%/0.02% (p-value = 1.0). Study patients with any urinary cancer incidence subdivided by subsequent hematuria codes: no additional hematuria 0.33% (18/5530); additional microscopic unspecified/unspecified hematuria 0.78% (14/1803); gross hematuria 2.48% (37/1493). Odds ratio by sex and additional hematuria coding compared to entire control cohort: 0.27 (p<0.0002; CI: 0.14-0.54) for males, 0.53 (p=0.12; CI: 0.24-1.18) for females without additional hematuria; additional unspecified hematuria/microscopic hematuria 0.85 (p=0.65; CI: 0.42-1.72) for males, 0.91 (p=0.085; CI: 0.35-2.40) for females; additional gross hematuria 2.16 (p<0.002; CI: 1.33-3.49) for males, 3.90 (p<0.0001; CI:1.97-7.70) for females.

Conclusion: MH patients with a negative evaluation of cystoscopy and CTU may not need further urinary evaluation unless they develop gross hematuria.

Source of Funding: None
OBJECTIVE: Microdeletions of the Y-chromosome (Yq) and karyotype abnormalities are frequent causes of male factor infertility. Current AUA/EUA guidelines recommend obtaining Yq microdeletion analysis, karyotype, and genetic counseling in men with non-obstructive azoospermia or severe oligospermia (<5 mil/mL). A recent retrospective cohort study suggests that Yq microdeletions are primarily found at a sperm concentration < 0.5 mil/mL and that by lowering the concentration threshold for genetic testing, specificity could be increased and relative financial cost decreased without adversely affecting the sensitivity. Studies have shown that FSH is the best predictor of NOA in combination with testicular volume as well as a significant predictor of microdeletion presence. Identification of Yq microdeletions and karyotype abnormalities have implications when counseling patients (and their partners) about the likelihood of retrieving sperm and need for further genetic counseling. We hypothesized that the combination of sperm density and FSH would better predict the presence of chromosome abnormalities in infertile men.

METHODS: A retrospective cohort study was conducted with subjects who were referred to a military tertiary Urology clinic between 2010 to 2020 and who underwent an infertility evaluation to include genetic testing (karyotype, Y-chromosome analysis), hormone profile (FSH), and at least one semen analysis. Sperm density and FSH were analyzed as independent predictors of chromosomal abnormalities using logistic regression. Receiver operating characteristics were generated for each independent variable that achieved significance in regression. The area under the curve for sperm concentration and FSH was found to be statistically better in combination than concentration alone (0.71 vs 0.66, p=0.033). The best balance of sensitivity and specificity (i.e. for a diagnostic test) for concentration and FSH were found at cut-points of <0.215 mil/mL and >8.345 mIU/mL, respectively. To optimize performance as a screening test and maintain sensitivity >90%, the cut points for concentration and FSH were <1 mil/mL and >2.74 mIU/mL, respectively. There was no difference in sensitivity for concentration between 2-7 mil/mL and no abnormalities were found if concentration exceeded 7 mil/mL; thus a cutoff of 7 mil/mL would capture 100% of all chromosome abnormalities.

CONCLUSION: Based on receiver operating characteristics, lowering the threshold for chromosomal analysis to a sperm concentration of <1 mil/mL maintains acceptable performance as a screening test for genetic abnormality, with resulting cost savings expected. Incorporating FSH into this decision appears to improve both sensitivity and specificity in prediction of chromosomal abnormalities.

SOURCE OF FUNDING: None
STUTTERING PRIAPISM: A RARE MANIFESTATION OF UNDERLYING MALIGNANCY
Cassandra C Lyons MD, Charles Rinehart MD, and Donald Crain MD
San Diego, CA  (Presentation to be made by Dr. Lyons)

Objectives: First described by Peacock in 1938, malignant priapism (MP) is defined as persistent erection in the absence of sexual stimulation or other triggering factors. The proposed mechanism is due to neoplastic invasion of cavernous sinuses and venous system resulting in poor outflow and painful penile engorgement. Though rare, MP due to penile tumors has been described in cases of hematologic malignancies, primary penile neoplasms, local invasion from urologic primary tumors including prostate and bladder cancer, and penile metastasis from other primary sources. Here we describe a case of metastatic epithelioid sarcoma that presented with recurrent priapism.

Methods: An otherwise healthy 43 year old male presented with two weeks of intermittent priapism. Initially thought to be traumatic in nature, the patient was managed conservatively with penile irrigation and phenylephrine. Though the patient achieved some improvement in his pain, full detumescence was never achieved. Approximately one month later the patient elected for placement of an inflatable penile prosthesis (IPP) due to persistent incomplete detumescence. At the time of surgery, extensive corporal induration was noted bilaterally. Upon entry into the corpora, copious purulent material was expressed from the tissues and the decision was made to abort the case. Prior to closure, several representative biopsies were collected.

Results: Blood gas performed at initial presentation was consistent with low flow priapism. Doppler studies showed intact arterial blood flow to the penis bilaterally and pelvic MRI was negative for penile injury though asymmetric enhancement of the corpora was noted incidentally. Surgical pathology revealed an unclassified malignancy and increased proliferation concerning for metastasis. A PET scan was performed which was consistent with widely metastatic disease with mets to the liver, lung, bone, muscles, adrenal glands, brain, and penis. Percutaneous biopsy of an abdominal mass confirmed the diagnosis of epithelioid sarcoma. Despite palliative chemotherapy and radiation the patient succumbed to his cancer just two months after diagnosis.

Conclusions: Epithelioid sarcoma is a rare soft tissue neoplasm primarily affecting young adult males and representing less than 1% of soft tissue sarcomas. Even rarer is the incidence of metastatic penile tumors, with fewer than 500 cases reported in the literature since 1850. A literature review by Lin YH et al based on reports from 2006 to 2011 suggested that the true incidence of penile metastasis may be higher given that 12% of penile metastasis may be asymptomatic and discovered only at autopsy. To our knowledge, this is the first case of widely metastatic epithelioid sarcoma presenting with priapism secondary to penile metastasis.

Source of funding: None
CONVERSION OF LOW-FLOW TO HIGH-FLOW PRIAPISM: DIAGNOSTIC AND MANAGEMENT STRATEGY

Cassandra C Lyons MD, Michael L Creswell*, Ryan Nasseri, MD*, T. Mike Hsieh, MD, MBA*, and Sean P Stroup MD
San Diego, CA (Presentation to be made by Dr. Lyons)

Objectives: Priapism is defined as a persistent erection for four or more hours in the absence of sexual stimulus and is broadly categorized into low-flow (ischemic) and high-flow (non-ischemic) priapism. Low-flow priapism is a veno-occlusive event in which there is little to no in-/nor out-flow from an erect penis resulting in compartment syndrome. Low-flow priapism is characterized by penile pain and abnormal corporal blood gases (hypoxemia, hypercarbemia, and acidosis). In contrast, high-flow priapism is most often attributed to trauma to either the corpora or crura resulting in unabated blood inflow from the cavernous artery. Conversion of low-flow priapism to high-flow priapism represents a rare, clinically complex challenge that is seldom reported in the literature and ample evidence is lacking to specifically inform diagnosis and management. Here we report a case of shunt-refractory, low-flow priapism which converted to high-flow priapism.

Methods: A 41-year-old male with a history of deep venous thrombosis (DVT) with rivaroxaban anticoagulation and psychosis managed with trazadone presented to the emergency department with a 3-day history of persistent erection not associated with sexual activity, stimulation, or trauma. He denied taking any medication to promote erection or improve sexual functioning. Initial venous blood gas (VBG) was consistent with ischemic priapism. The patient was managed with intracorporal phenylephrine injection with percutaneous corporal drainage and irrigation with minimal detumescence. The patient developed a painful hematoma secondary to the irrigation that was thought to be contributing to his outflow obstruction. Given the patient’s persistent and symptomatic priapism, the decision was made to proceed with surgical intervention. Ultimately the patient was taken to the operating room for three progressively invasive surgical procedures. The first was a Winter’s shunt with a needle puncture of the corpora through the glans. The second procedure was a T-shunt with corporal tunneling. The third was a T-shunt with dilation in conjunction with anticoagulation to ensure shunt patency. Despite multiple interventions, the patient continued to have persistent priapism.

Results: Repeat VBG returned bright red blood raising suspicion for high flow priapism, with pH returning at 7.42 and pO2 53 mmHg. The patient underwent penile duplex ultrasound which demonstrated absent arterial flow through the central area of the right corpora with peripheral flow with normal arterial inflow and venous outflow of the left corpora. The findings on the right side were thought to be due to residual blood clot in the corporal tissue. A penile angiogram was performed and revealed hypervascularity of the corpora with persistent pooling in the left corpora along a branch of the left internal pudendal artery. The artery was then successfully embolized with Gel-Foam. The following day the patient was noted to have penile edema with complete detumescence.

Conclusions: Low-flow priapism is a urologic emergency that can cause significant sexual dysfunction if not promptly addressed. While low-flow priapism represents the vast majority of cases, conversion of low-flow to high-flow priapism can rarely occur. Index of suspicion should be high in refractory priapism after initial iatrogenic intervention. The optimal management of low- to high-flow priapism remains unknown but initial management should include cavernosal blood gases or duplex ultrasound to differentiate refractory low-flow priapism from converted high-flow priapism. Internal pudendal angiography can be diagnostic and therapeutic with selective embolization planning as needed. Further research is needed to better inform clinical decision-making in patients with conversion of low-flow to high-flow priapism.

Source of funding: None
Diphallia is an extremely rare congenital malformation with an incidence of about 1 in 5-6 million live births. Most widely now classified between complete (true diphallia) versus bifid diphallia introduced by Aleem in 1972. True diphallia is defined by the presence of two corpora cavernosa and 1 corpus spongiosum associated with each penis. Bifid phallus (complete versus partial based on split at base versus glans, respectively) consists of partial duplication with one corpora cavernosum in each penis. Roughly 100 cases of this condition have been reported in literature (initially in 1609) each presenting with unique associated anomalies. Due to this low incidence, little is known about the pathophysiology and management strategies for these rare conditions, however, surgical goals throughout the literature are often associated with attaining urinary continence, sufficient erectile function, and adequate cosmesis.

We report a case of a 7 month old bifid diphallia with associated distal hypospadias. Medical history was otherwise pertinent for sacral agenesis with incomplete development of S4, S5, coccyx, tethered cord, and lipomatous tumor of filum terminale, anorectal malformation with high imperforate anus, and mild left hydronephrosis. At age 1, meatal advancement and glanuloplasty (MAGPI) of ventral coronal hypospadias and probing of the dorsal glanular pit were performed with additional finding of full second glans associated with dorsal meatus. The ventral meatus was noted to be patent into the bladder.

Seven months later, partial glansectomy with accessory urethrectomy performed with preservation of dorsal accessory corporal tissue. We placed an 8-French feeding tube in the ventral urethra and a lacrimal duct probe in the dorsal urethra. We then made a circumferential incision around the penile shaft at the previous circumcision line, then the penis was degloved to the midshaft. We made a longitudinal incision from the dorsal urethra to the coronal margin. We then circumscribed the dorsal urethral meatus with our incision as well. Using electrocautery, we carefully dissected out the accessory urethra and dissected it to the coronal margin where we suspected that the corporal body for the accessory penis. We excised the urethra at the level of the coronal margin with electrocautery. We then removed the lacrimal duct probe and oversewed the meatus with a running 6-0 Vicryl suture. The second Lembert layer of 6-0 Vicryl was then placed over it. Finally we excised the excess glanular tissue. We reapproximated the glanular tissue with 5-0 Vicryl subcuticular suture. Overall, patient was doing well up to one year post-operatively with acceptable cosmesis.

Source of Funding: None
THE UTILITY OF PERIPHERAL SACRAL NEUROMODULATION AS PART OF A CLINIC PROTOCOL FOR CHILDREN WITH REFRACTORY BOWEL AND BLADDER DYSFUNCTION.

Santhosh Donepudi*, Alyssa Messina CPNP*, Omar Ayyash MD MPH*, Raj Chaudhry MD*, Glenn Cannon Jr MD*, Francis Schneck MD*, Janelle A Fox MD MS FACS, Pittsburgh, Pennsylvania, USA

Presentation to be made by: Santhosh Donepudi (backup presenter: Dr Janelle Fox)

Background: Sacral neuromodulation (SN) has been previously validated for treatment of refractory overactive bladder and voiding dysfunction in children. Using the algorithm proposed by Palmer (2017), our group offers noninvasive SN via parasacral transcutaneous electrical neurostimulation (PTENS) and percutaneous tibial nerve stimulation (PTNS) to both groups of patients allowing families to choose between home-based daily vs in-office weekly therapy.

Objectives: We aim to examine the efficacy of SN on children with refractory bowel and bladder dysfunction, who have previously failed conservative and pharmacologic therapies. We aimed to identify whether the specific variables of neuropsychiatric diagnoses or nocturnal enuresis influence SN success in refractory dysfunctional voiders.

Methods: We prospectively tracked 12 children (8 PTENS, 4 PTNS) undergoing non-invasive SN. We determined whether SN was effective by quantifying urinary accidents per week by voiding diary or history: no significant improvement (<50%), partial improvement (>50%), or substantial improvement (>90%). Constipation improvement was defined as daily soft stools with a stable bowel regimen. Statistical analysis was conducted with Mann-Whitney U tests (SPSS Version 27.0.1, IBM).

Results: Ten patients completed the recommended 12-week treatment course, but two patients (17%) with sensory processing disorder and severe anxiety stopped PTENS and PTNS early. Substantial improvement in urinary incontinence occurred in 5 (63%) PTENS and 2 (50%) PTNS patients, with partial improvement in 1 (13%) PTENS patient. Overall, improved urinary continence occurred in 65% of all patients. Furthermore, 5 (83%) PTENS and 4 (100%) PTNS patients showed improvement in constipation for an overall rate of improvement of 90%. Outcomes were not different for the two types of SN for either urinary incontinence or constipation, likely due to low sample size (p=0.561 and p=0.414, respectively). Neither the presence of a neuropsychiatric diagnosis (P = 0.498) nor the experience of nocturnal enuresis (P = 0.926) significantly affected urinary incontinence.

Conclusions: Overall improvement in urinary incontinence and constipation after noninvasive SN techniques is 65% and 90% for children with refractory voiding dysfunction and overactive bladder. No early differences were detected in bowel or bladder outcomes between PTENS and PTNS groups, though sample size is limited. Non-invasive SN techniques are worth pursuing prior to declaring treatment failure or pursuing invasive, implantable SN.

Source of Funding: none
Objective: To perform a prospective study to determine the rate of perioperative Deep Venous Thrombosis (DVT) in patients undergoing Urologic Surgery. Rates of perioperative DVT are well described in the General Surgery literature, but generally lacking in Urologic literature. The primary data currently available in retrospective in nature and largely focused on radical cystectomy and prostatectomy cases only or evaluated symptomatic thromboembolic events. This study aimed to provide a more accurate estimation of the incidence of perioperative DVT for Urology-specific cases.

Materials and Methods: Prospective, single institution observational study. Participants were identified in the Urology clinic during preoperative visits for procedures requiring general anesthesia and were at least 18 years of age at study recruitment. After consent for study participation, they were provided a medical history intake form with a number of known risk factors for development of DVT. Each subject underwent a preoperative bilateral lower extremity duplex ultrasound to confirm preoperative absence of DVT. Those with pre-existing DVT were excluded from data analysis. Surgical intervention and perioperative DVT reduction were at the operating surgeon’s discretion in accordance with standard practice and AUA guidelines for DVT prophylaxis. Subjects then underwent a repeat lower extremity duplex ultrasound at 4-6 weeks post operatively with plans to treat any positive studies in consultation with Hematology/Oncology.

Results: During the study period we were able to recruit a total of 88 of 200 expected subjects. Of those, we had a 28.4% drop out rate due to military operational requirements, procedural cancellations, loss to follow up, and incomplete reporting of data amongst 21 patients as well as the 4 patients that had positive preoperative duplex ultrasounds and were thus excluded from the study, leaving a total of 63 patients that completed the preoperative data collection and two duplex ultrasound studies. Of these, there were no reported DVT events. Operations amongst this group ranged from endourology procedures, scrotal, and open or laparoscopic procedures. The operative time ranged from 17 to 384 minutes, with an average of 105 minutes.

Conclusions: Our study indicates that risk of development of DVT in perioperative the perioperative setting across the range of Urologic procedures remains low, assuming standard DVT prophylaxis guidelines are followed (as was this case for the patients included in this dataset).

Source of Funding: Institutional
ROBOTIC APPROACH TO SEGMENTAL URETERECTOMY FOR PROXIMAL UPPER TRACT UROTHELIAL CARCINOMA

CPT Brittnney L. Murray, MD, MS, MAJ Alexandria M. Hertz, MD, LTC John E. Musser, MD, Honolulu, HI

(Presentation to be made by Dr. Murray)

Introduction and Objectives: Upper urinary tract urothelial carcinoma (UTUC) is an uncommon urologic cancer that usually occurs in the renal pelvis. The primary principle in treating this type of cancer is obtaining an accurate tumor grade with cytology or biopsy due to the inherent staging difficulty with imaging. This case highlights the variability in case presentation and proposes intraoperative adjuncts to further ensure clear margins. The associated video aims to provide a step-by-step approach for robot-assisted segmental ureterectomy and primary anastomosis for UTUC using indocyanine green and flexible ureteroscopy as adjuncts.

Methods: A 53 year-old male was referred for evaluation of two episodes of microscopic hematuria. The patient was classified as intermediate risk according to the AUA Microhematuria Risk Stratification System due to his age and 25 pack-year smoking history. There were no abnormalities found on cystoscopy but renal ultrasound revealed right-sided hydronephrosis. CT-IVP performed to follow up renal ultrasound showed high grade hydroureronephrosis with delayed contrast excretion from the right kidney and a homogenous mass measuring 1.5 x 3.1 x 2.9cm. Urine cytology after this finding was notable for atypical degenerated urothelial cells. CT chest showed stable, unchanged pulmonary nodules. Upon further review, it was found that this patient had previously experienced two episodes of gross hematuria at the beginning of the coronavirus pandemic. A CT-IVP was ordered but the patient was lost to follow up.

The patient was then scheduled to undergo a robot-assisted segmental ureterectomy with reconstruction and local lymph node dissection. The surgery was performed in the typical manner until the right renal hilum was identified. At this point, the right kidney was dissected away from the abdominal wall before the tumor was identified with a combination of flexible ureteroscopy and near infrared imaging. Three centimeters of the right ureter were excised. The ureter was mobilized proximally and distally to help make up this distance. Kidney was dissected from lateral attachments and nephropexy performed. Ureteral ends were spatulated and anastomosed to create a watertight and tension-free anastomosis. Ureteropyeloscopy was performed to confirm complete mass excision before a stent was placed.

Results: The operation took 334 minutes. EBL was 50mL. There were no intraoperative or postoperative complications. Renal function remained stable. Pathology results showed low grade papillary urothelial carcinoma with clear margins.

Conclusions: Robot assisted segmental ureterectomy and primary anastomosis is a safe, feasible option for UTUC not involving the kidney. This approach can be augmented with the use of flexible ureteroscopy and near infrared imaging to further ensure clear margins.

Source of Funding: None
Objectives: This video aims to provide a step-by-step approach for robot-assisted repair of benign distal ureteroenteric strictures (UES) following radical cystectomy (RC).

Materials and Methods: We demonstrate the feasibility and safety of robotic repair through three clinical scenarios after different forms of diversion and open primary surgery. UES repair is performed in the setting of an open RC and neobladder (NB), an open Indiana pouch and a repeat repair after RC and ileal conduit (IC). The RC/IC and Indiana pouch patients were placed in the modified lateral position with right side up. Port placement was directed at the right lower quadrant. The RC/NB patient was placed in the supine position and port placement was similar to that of RC. The operation consists of extensive lysis of adhesions, mobilization of the diversion and ureter, identification of the UES, excision of ureteral scar tissue and spatulation, assessment of ureteral perfusion using indocyanine green (ICG) fluorescence and the creation of a tension-free and watertight anastomosis.

Results: All cases were completed successfully without the need for open conversion. There were no intraoperative complications. Operative times ranged from 174-273 minutes. Estimated blood loss ranged from 10-50ml. Patients were discharged on postoperative day 1. No major complications occurred within 90 days of discharge. Renal function remained stable in all three patients at 6 weeks postoperatively. Patients were followed with functional renal imaging at 3 months postoperatively.

Conclusions: Robot-assisted repair of UES is feasible and safe, even in the setting of extensive prior open abdominal surgery. This is the ideal approach for UES repair because it requires less mobilization of surrounding structures, allows for intraoperative ureteral assessment with ICG fluorescence and can successfully create a tension-free and watertight anastomosis. Our patients recovered quickly and without complications.

Source of Funding: None
Intra-Peritoneal Bladder Perforation Presenting as Small Bowel Obstruction in Patient with Chronic Indwelling Catheter

Timothy Wright, M.D., Carolyn Salter, M.D.
Tacoma, WA

Presentation to be made by Dr. Wright

Introduction: Intraperitoneal bladder perforation associated with indwelling urethral catheter is a very rare but serious condition. Though often presenting with an acute abdomen and peritonitis, this case demonstrates a patient with the presenting symptom of PO intolerance and a benign exam.

Case: The patient is an 86 year old male managed with chronic indwelling foley. He presented to the ER 10 days following his most recent catheter change, with 1 day of abdominal distension, nausea, and emesis without notable abdominal pain. Patient had prior surgical history of open right inguinal hernia repair 2 years prior and known easily reducible left inguinal and umbilical hernias. CT showed small bowel obstruction with 2 possible transition points, 1 of which was near the tip of the foley catheter which appeared to be protruding through the dome of the bladder versus in a bladder diverticulum. CT cystogram was suggestive of a contained perforation. The decision was made to proceed to the OR for exploratory laparoscopy with general surgery and urology. Cystoscopy was first performed, revealing a trabeculated bladder with a small defect in the bladder dome, consistent with a diverticulum or contained perforation. The abdomen was then entered laparoscopically and small bowel was visualized adhered to the distended bladder. Lysis of the adhesions revealed a perforation in the bladder wall with extravasation of irrigant. The defect was repaired laparoscopically, and patient had return of bowel function on post-operative day 2. Four weeks following the repair, cystogram was performed, which revealed no evidence of urine leak. Patient continues to be managed with indwelling catheter and has had no subsequent complications.

Conclusion: Although exceedingly rare, bladder perforation is a potential complication of indwelling catheter use, and, as this case demonstrates, does not always present with peritonitis and critical illness. The exact mechanism of perforation is not clear in this case, however it is likely that the patient's advanced age combined with poor nutritional status, chronic inflammation from indwelling catheter, and thinned bladder wall from bladder outlet obstruction created an environment where erosion and eventual perforation of the bladder was possible.

Source of Funding: None
Objectives: Decreased access to health care and lack of timely, specialized oncologic care has been shown to contribute to rising morbidity associated with testicular cancer. The military healthcare system (MHS) provides a unique environment in which beneficiaries can access both military treatment centers as well out-of-network providers. Our study intends to evaluate diagnosis, clinical decision making, and treatment of testicular cancer within the MHS.

Materials and Methods: A retrospective review of patients from 2000 to 2020 diagnosed with testicular cancer within the military healthcare system. Epidemiologic data, clinical practice patterns, and outcomes of patients with testicular cancer in MHS were analyzed.

Results: 750 patients were identified using the ICD9/10 code for testicular cancer between 2000 to 2020. The prevalence of testicular cancer in the MHS is approximately 0.98%, compared to 0.17% in the general population. The first 50 patients were analyzed for this preliminary study. 44 patients met the criteria of diagnosis with sufficient information for analysis. Of the 44 patients, 29 are active duty, six are dependents, and nine are retired members. 65% of the patients are Enlisted and 34% are Commissioned Officers. Upon orchiectomy, 24 patients had NSGCT, 18 patients had seminoma. Of the patients with seminoma, 14 were found to have stage 1, two were found to have stage 2 and one was found to have stage 3. Of the 11 patients with stage 1A seminoma, six underwent observation, five underwent adjuvant therapy, four chemotherapy and one underwent XRT. One patient with stage 1B NSGCT underwent observation while the other underwent XRT. For patients with seminoma, there were no deaths at the time of last contact. Of the patients with NSGCT, 12 were found to have stage 1, five were found to have stage 2 and six were found to have stage 3 disease. Of the eight patients with stage 1A NSGCT, 4 underwent observation, one underwent chemotherapy and three underwent RPLND. For patients with NSGCT, there were no deaths at the time of last contact.

Conclusions: The prevalence of testicular cancer is dramatically higher in the MHS, compared to the general population. In total, 50% of low risk stage 1 NSGCT underwent surveillance while 50% underwent adjuvant therapy with either RPLND or chemotherapy. Similarly, a little more than half of patients with stage 1 seminoma underwent surveillance. Both of these practice patterns likely reflect a more aggressive clinical approach, especially given the patients' access to care.
Introduction and Objective: AUA guidelines support thermal ablation (TA) for small renal masses (SRM) 3 cm or less in a select patient population. While TA success rates decline with increasing size, studies support TA for SRMs up to 4 cm with acceptable oncologic outcomes. The advantages of microwave ablation (MWA) over older ablation modalities may improve success rates in larger T1a SRMs.

Methods: An institutional review board approved SRM database included retrospective data since 2009 and prospective data since April 2015 concordant with the inception of a multidisciplinary conference to determine treatment consensus. Options included partial nephrectomy (PN), ablation, or active surveillance. Local recurrence events were defined as residual mass or enhancement. Kaplan-Meier plot and pairwise log-rank tests assessed outcomes.

Results: Of 190 treated renal tumors, 280 were stage T1a and 134 had tumor size of 3 to 4 cm. Of this 3-4 cm cohort, 76 underwent MWA, 58 underwent PN, and 3 were lost to follow-up. Median postoperative follow-up was 514 days. PN 3-4 treatment group experienced two local recurrences and MWA 3-4 treatment group experienced four local recurrences, with no difference in recurrence rate (p=0.50). Clavien-Dindo complications > 3 were 9.5% and 8.9% for MWA and PN, respectively. Recurrence in the 3-4 cm cohort was not significantly different from patients with tumors < 3 cm (p = 0.23).

Conclusions: While longer follow-up is needed, this data suggests that in select patients MWA does not appear inferior in treating 3-4 cm masses relative to < 3 cm masses. If larger studies confirm these findings, the indication for ablative therapies may warrant expansion.

Source of Funding: None
URETHRAL STRICTURE/STENOSIS AS A COMPLICATION OF HIGH INTENSITY FOCUSED ULTRASOUND OF THE PROSTATE (HIFU): WHAT IS THE OVERALL PATIENT EXPERIENCE?

David Barham, MD, John Barnard, MD*, Joel Gelman, MD*, Orange, CA
(Presentation to be made by: Dr. David Barham)

Introduction and Objective: High Intensity Focused Ultrasound (HIFU) is an emerging treatment option for localized prostate cancer. Publications that detail the oncologic outcomes and complications of HIFU report that urethral stricture/stenosis develops in about 19% of patients on average, and is generally treated with dilation, urethrotomy, or transurethral resection of the prostate. The literature does not describe in any detail the location of obstruction, treatment success rate, or impact on the patient’s quality of life (QOL). Our objective was to analyze patients with HIFU stricture/stenosis to characterize location, management strategies, and patient reported satisfaction up to 15 years post HIFU.

Methods: Patients with a history of HIFU requesting consultation for stricture were identified from 2010-2020. Demographic and prior treatment data were recorded. Patients who presented for evaluation underwent cystoscopy, a retrograde urethrogram, and voiding cystourethrogram. Patients, including those who did not present for in-person consultation, were followed longitudinally to assess long-term outcomes and QOL.

Results: 29 patients were identified with a mean age of 65.8 years. A total of 86.2% of patients had at least one failed surgical intervention at a mean of 45.1 months post-HIFU prior to initial consultation. 17 patients underwent urethral evaluation, and 94.1% had strictures that included but were not necessarily limited to the prostatic urethra. 20 patients underwent various treatments post-evaluation, favoring endoscopic therapy (45%) and proximal diversion (20%) at a mean of 67.1 months follow up. Only 33.3% reported satisfaction with urinary symptoms.

Conclusions: Urethral narrowing post-HIFU appears to overwhelmingly involve the prostatic urethra. Patients usually have a significant treatment burden over a prolonged period. In contrast to radiation induced stenosis that is reported to be often limited to the membranous urethra and amenable to curative anastomotic urethroplasty, HIFU urethral complications are often managed with repeated endoscopic or extirpative prostatic surgery. A large portion undergo urinary diversion, and overall, patients with HIFU strictures experience a diminished QOL due to urinary symptoms.

Source of funding: None
PAPER #48
GENITOURINARY MANAGEMENT AND FOLLOW-UP FOR PATIENTS WITH STEVENS-JOHNSON SYNDROME/TOXIC EPIDERMAL NECROLYSIS

(Presentation to be made by: Dr. Gina T. Baaklini)

Objectives: Genitourinary involvement in Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) is common but under-recognized in the literature. Evidence-based recommendations for management do not exist. Foley catheters may be placed to help prevent urethral strictures, yet it is not documented if this is beneficial or actually necessary. There is no literature on SJS/TEN and urethral involvement with subsequent voiding dysfunction. The purpose of this project is to retrospectively review the cases of SJS and/or TEN at our institution to determine the incidence and management of genitourinary manifestations, including the indication for urethral catheters, with the goal of providing recommendations for acute and long-term care of genitourinary lesions. This study aims to be the first publication in the medical literature to elucidate the incidence and organize a management strategy for genitourinary manifestations of patients with SJS and/or TEN.

Materials and Methods: This is a retrospective study with the primary target population being adult male patients ≥18 years old who were admitted to the United States Army Institute of Surgical Research Burn Center intensive care unit and/or step-down units for SJS and/or TEN. The study group is divided into patients who had genitourinary (GU) manifestations and those without GU manifestations. Medical records used for data collection extend from January 1st, 2010 to January 1st, 2020. The electronic medical record will be queried by the primary investigator and associate investigators for approved data points to include but not limited to the extent of GU involvement, the treatment provided, and the use of urethral catheterization.

Results: 61 patients met the study inclusion criteria. Urethral catheters were placed for various reasons to include acute urinary retention, accurate input and output measuring, and prophylactically to prevent urethral strictures. All patients were discharged without a Foley catheter and none required follow-up with Urology. This included patients who voided asymptomatically without a urethral catheter. Despite no standardized treatment being used for GU lesions, all were successfully treated.

Conclusions: Foley catheters do not appear to be necessary for prevention of urethral strictures in patients with SJS/TEN who have GU involvement.

Source of Funding: None.
A RARE CASE OF SYMPTOMATIC PATENT URACHUS IN AN ADULT MANAGED WITH SURGICAL EXCISION

Paolo Rigo MD, Chad R. Pusateri DO
Portsmouth, VA
(Presentation to be made by Dr. Paolo Rigo)

Objectives: In normal fetal development, the urachus obliterates into the median umbilical ligament by the fourth month of gestation. A patent urachus is the result of the failure of the urachal canal to obliterate thus leaving an alternate avenue for urine to traverse. Urachal anomalies are often discovered postnatally in pediatric patients presenting with umbilical drainage. Our patient represents a rare case of a patent urachus in an adult.

Description: Patient is a 31-year-old man referred to the Urology for evaluation of umbilical drainage for 1 month. History and physical and imaging studies completed. CT with intravenous contrast confirmed a patent urachus. Physical exam revealed 8Fr meatal stenosis. A cystoscopy was performed confirming the diagnosis of a patent urachus. Meatoplasty and laparoscopic robotic excision of urachus was completed without complication. Pathology revealed urachal tissue without evidence of malignancy.

Comment: Urachal remnants are a rare persistence of embryologic anatomy caused by failure of urachus to obliterate. Increased intravesical pressure redirects urine to areas of least resistance, which may include a urachal remnant. We believe our patient's patent urachus was a direct result of high pressure voiding due to his meatal stenosis. In this otherwise healthy 31-year-old man, excision of patent urachus had excellent including return to normal voiding, and resolution of umbilical drainage. In the absence of symptoms, excision of urachal remnants remains controversial, but may be warranted due to risk of malignant transformation.

Source of funding: None
Introduction/Objectives: Cowper's syringocele is a rare cystic dilation of Cowper's gland, also referred to as bulbourethral gland, in the male bulbar urethra. It typically clinically presents in two fashions depending on the nature of the syringocele. Hematuria, urethral discharge, and/or post-void dribbling may indicate an open syringocele, whereas obstructive urinary symptoms are more often associated with closed syringoceles. Ultrasonography and retro- or antegrade urethrography are typically diagnostic. However, cystoscopy, computed tomography, and magnetic resonance imaging have shown to be helpful in prior workups. While Cowper's syringoceles are benign, treatment is recommended for symptomatic patients. Treatment options include an endoscopic approach to unroof the syringocele with cold knife or holmium yttrium aluminum garnet (YAG) laser and open surgery. The minimally invasive endoscopic approach is typically preferred over surgery.

Here we present a 20-year-old previously healthy, male patient who presented with painless intra- and postcoital gross urethral bleeding ultimately revealed to have a Cowper's syringocele. We discuss the ensuing work-up, treatment, and follow-up.

Case Presentation: A 20-year-old male presented to clinic after experiencing painless, gross urethral bleeding while having receptive, penetrative anal intercourse. Per the patient, the bleeding lasted several hours post-coitus, after which, he passed small clots with voiding for the ensuing week. He denied lower urinary tract symptoms to include dysuria, urinary frequency, urgency, change in urinary stream, Valsalva voiding, and inadequate emptying of the bladder. Neither the gross bleeding or hematuria recurred. Physical exam revealed no evidence of meatal abrasions or signs of trauma. Urinalysis at that time was normal. Chlamydia trachomatis and Neisseria gonorrhoeae returned negative. Computed tomography urogram revealed minimal dilation of the bulbar urethra. Cystoscopy revealed a large, broad-based cyst emanating from the floor of the bulbar urethra, occupying most of the urethral lumen. This finding was consistent with a Cowper's syringocele. The patient continued to deny lower urinary tract symptoms and any recurrent urethral bleeding or hematuria. A retrograde urethrogram was then completed to determine if there was a communication between the cyst and the urethra. This revealed a small filling defect at the inferior aspect of the bulbar urethra, consistent with the Cowper's syringocele visualized during cystoscopy. There were no signs of communication, indicating a closed syringocele. Then, a transrectal ultrasound and cystoscopy with transurethral unroofing of the imperforate Cowper's syringocele using YAG laser with marsupialization was completed without complication. The patient was educated on how these lesions are benign, thus not requiring surveillance. At both follow-up appointments, the patient remained asymptomatic and repeat urinalysis was normal. He was advised that he may return to unrestricted physical and sexual activity.

Conclusions: Cowper's syringocele is a rare diagnosis and typically presents with lower urinary tract symptoms, hematuria, or urethral discharge. A brief PubMed literature search failed to find prior reported presentations of Cowper's syringocele with intra- and/or postcoital gross urethral bleeding, causing us to believe this is a unique presentation. This case stresses the importance of considering Cowper's syringocele on the differential for non-traumatic presentations of gross urethral bleeding.
STANDARDIZED PROTOCOL FOR VOIDING CYSTOURETHROGRAM: ARE RECOMMENDATIONS BEING FOLLOWED?
(Presentation to be made by Dr. Brock Boehm)

Objectives: Voiding cystourethrogram (VCUG) images the urethra and bladder during filling and emptying, as well as the ureters and kidneys when vesicoureteral reflux (VUR) is present, providing detailed information about both anatomical and functional status of the urinary tract. Given the importance of information obtained, the American Academy of Pediatrics section on Urology and Radiology published a joint standardized VCUG protocol in 2016.

Methods: We compared VCUG reports from multiple institutions before and after publication of the protocol to determine adherence to recommendations. Studies performed on patients > 18 years of age and those obtained for trauma evaluation were excluded from the study.

Results: A total of 3,121 VCUG reports were analyzed, 989 (31.7%) were generated before and 2,132 (68.3%) after protocol publication. Comparing cohorts, there was no difference in gender (62.6% female vs 61.4%; p=0.53) though children in the post-cohort were slightly older (3.34 ± 3.82 vs 3.68 ± 4.19 years; p=0.03). A significant increase in scout image reporting (91.5%) and cyclic studies (20.5%) were observed in the post-cohort, in comparison to 79.2% and 13.1%, respectively, in the pre-protocol cohort (p<0.001). Measured PVR and recorded infused volume actually decreased between study periods (84.7% vs 72.8% and 97.2% vs 91.5%, p<0.001). There was no statistically significant difference between VUR grade reporting (99.4% vs 98.5%, p = 0.25). Recorded volume in which reflux occurred increased between periods (0.6% vs 2.3%, p < 0.05), while reporting of filling vs voiding reflux decreased in the post-cohort (84.4% pre- vs 77.4% post-protocol, p < 0.008).

Conclusions: Despite consensus on standard VCUG protocol to best perform and record data, reports remain inconsistent. While VUR grade is routinely reported, other important anatomic and functional findings which are known to impact resolution and breakthrough urinary tract infection rates, such as volume at which reflux occurs, are consistently underreported.

Source of funding: none
ROBOT-ASSISTED LAPAROSCOPIC EXCISION OF A GIANT MULTILOCULAR PROSTATIC CYSTADENOMA
Jonathan S. Yu, M.D.*, Alexandria M. Hertz, M.D., John E. Musser, M.D. Honolulu, HI
(Presentation to be made by Dr. Jonathan Yu)

Introduction Giant multilocular prostatic cystadenoma (GMPC) is a rare, benign tumor of the prostate with fewer than 40 cases reported in the literature. Most reported cases were managed with an open approach with few laparoscopic and robotic cases reported. This case demonstrates the feasibility of using simple prostatectomy principles for robot-assisted excision of a rare GMPC.

Methods A 50 year old male presented with a one month history of increasing lower abdominal pain and pain at the base of the penis that radiated to the left testis. He denied lower urinary tract symptoms. A pelvic MRI revealed a large 300cc pelvic mass extending from the posterior aspect of the prostate with adjacent lymphadenopathy. A plane of interface was preserved between the mass and the rectum. Serum prostate-specific antigen was 13.7. A colonoscopy was performed within the last year and was negative. Cystoscopy revealed external compression posterior to the prostate and bladder neck with lateral deviation of the verumontanum. There were no obvious mucosal abnormalities noted. Digital rectal examination revealed a very large smooth pelvic mass in the area of the prostate. Prostate biopsy was negative for malignancy and demonstrated benign adenoma. CT chest/abdomen/pelvis was otherwise unremarkable. Given that the biopsy findings were benign and the patient’s symptoms likely related to mass effect, we planned for robot-assisted laparoscopic excision of the prostatic mass.

The patient was positioned in the supine position and port placement was similar to that of robotic prostatectomy. 5 french open ended catheters were inserted cystoscopically into the ureters bilaterally to better identify the ureters during the posterior dissection. The steps of the operation consisted of posterior dissection incising the peritoneum to identify seminal vesicles and vasa deferentia, anterior dissection to separate the mass from the bladder and prostate, and dissection of lateral attachments preserving the endopelvic fascia. Intraoperatively, the mass seemed to emanate from the right seminal vesicle and thus was removed with the prostatic mass. Cystoscopic examination of the excision site revealed a small urethrotomy that was primarily repaired under direct visualization with a flexible cystoscope. Foley catheter was left in place and a drain was left within the pelvic cavity.

Results Operative time was 289 minutes. Estimated blood loss was 150 ml. The patient was discharged on postoperative day 1 with a foley catheter in place. The drain was removed prior to discharge. Foley catheter was removed postoperative day 7. Voiding cystourethrogram revealed no extravasation of contrast. The patient had a low post void residual of 12 ml. There were no major complications within 60 days of discharge. The gross pathological specimen was 8.8 x 7.3 x 6.9 cm and weighed 218 grams. Sectioning revealed a firm rubbery pale tan cut surface with multiple cyst like cavities filled with chocolate brown fluid. Final histology indicated a prostatic cystadenoma with benign seminal vesicle.

Conclusions Robot-assisted laparoscopic excision of a GMPC is a feasible and safe treatment option. This is an ideal approach as it preserves urinary continence and erectile function. Previously published cases report more aggressive treatment such as radical prostatectomy or pelvic exenteration due to involvement of mass with surrounding structures. This patient recovered quickly and without complications.

Source of Funding: None
RARE CAUSE OF MALE INFERTILITY: 46, XX DSD IN A PHENOTYPICALLY MALE, SRY-POSITIVE PATIENT

Samuel A. Shalov, MD; Sarah B. Starosta, MD; Eric D. Biewenga, MD
San Diego, CA
(Presentation to be made by ENS Cameron Barruga, MC, USN)

Objectives: An estimated 10% of males worldwide are affected by infertility, with genetic disorders accounting for 15%. Klinefelter syndrome and microdeletions of the azoospermia factor (AZF) region of the Y chromosome are the most common genetic disorders found in infertile men. Disorders of sex development (DSD) are an uncommon (1 in 20,000) genetic cause of male infertility with a variable discordance between genotype and phenotype. Here we present a 39-year-old healthy, male patient who presented for infertility and was found to have 46, XX DSD with the presence of the SRY gene on an X chromosome.

Methods and Materials: A 39-year-old male was referred to Urology for infertility evaluation after two years of attempted conception. The patient had previously never fathered children. He also endorsed somber mood, decreased energy, decreased muscle mass, and low libido. Physical exam findings included normal stature, no gynecomastia, remarkably small testicles, and normal tanner stage V development. Laboratory work-up was significant for hypergonadotropic hypogonadism (Testosterone 181 ng/dL, LH 20.0 mIU/mL, FSH 25.2 mIU/mL) and two centrifuged semen analyses with azoospermia. Scrotal ultrasound identified atrophic testicles (right 2.2 mL, left 1.8 mL). He had Y microdeletions of AZFa, AZFb, AZFc and karyotype revealed 46, XX with the presence of the SRY gene on one arm of one X chromosome.

Results: The patient and his wife were counseled on the extremely low likelihood of sperm retrieval and about options for fertility including donor sperm and adoption. He was also counseled on possible cancer risks. He desired treatment for hypogonadism.

Conclusions: Of the various genetic causes of male infertility, 46, XX DSD is a rare cause. The secondary importance of evaluating for 46, XX DSD is its association with possible development of gonadoblastoma and breast cancer. Although there are limited fertility treatment options for patients with 46, XX DSD, treatment for symptoms of hypogonadism and genetic and/or mental health counseling should be offered at the time of diagnosis.

Source of Funding: None.
URETEROPELVIC JUNCTION OBSTRUCTION IN THE ELDERLY: IS PYELOPLASTY A SAFE OPTION?

2LT Isabel A. Gibson, USA*; Karishma Gupta M.D.*; Danly O. Omil-Lima M.D.*; Shubham Gupta M.D.*; David D. Sheyn M.D.*; Amihay Nevo M.D.*; Kirtishri Mishra M.D.*; Kyle A. Scarberry M.D.*; Cleveland, OH

(Presentation to be made by Isabel Gibson)

Objectives: Symptomatic ureteropelvic junction obstruction (UPJO) can occur at any age. Studies assessing pyeloplasty safety in elderly patients are lacking. We hypothesize pyeloplasty in patients ≥70 years of age has similar 30-day complications when compared to pyeloplasty in younger patients and to endoscopic intervention for UPJO in the elderly.

Methods: The National Surgical Quality Improvement Program (NSQIP) database was queried for patients undergoing open (CPT 50400, 50405, 50540) or minimally-invasive pyeloplasty (MIP: robotic/laparoscopic, CPT 50544) from 2014-2018. Characteristics and complications in elderly patients (≥70 years) were compared to adults 18-69 years. A separate analysis comparing elderly pyeloplasty and elderly endoscopically-treated UPJO (CPT 52342, 52345) was performed using logistic regression.

Results: 1,749 patients age 18-83 years who underwent pyeloplasty were identified. Elderly pyeloplasty patients (n=185) were more commonly American Society of Anesthesiologists (ASA) score III-IV (52% vs. 22%, p<0.001), required shorter operative times (154 vs. 169 minutes, p=0.03), and had longer hospitalizations (2.6 vs. 2.1 days, p<0.001) compared to the younger cohort. There were no differences in reoperation/readmission, but elderly patients more commonly experienced urinary tract infections (UTIs) (8.7% vs. 4.4%, p=0.01). Non-UTI or superficial skin infection (SSI) complication rates were similar (6.0% vs. 4.4%, p=0.32). No elderly patient experienced myocardial infarction, pulmonary embolism, or septic shock.

Pyeloplasty was the intervention of choice less frequently in patients >70 years relative to younger patients (64.7% vs. 86.2%, p<0.001). Compared to elderly endoscopic patients (n=101), elderly pyeloplasty patients (n=159) were younger (75 vs. 77 years, p=0.03) and less commonly ASA III-IV (50% vs. 74%, p<0.01), with similar overall (14.5% vs. 14.9%, p=0.93) and non-UTI/SSI complications (5.7% vs. 9.9%, p=0.20). Multivariate analysis controlling for age, gender, and ASA score did not identify increased risk of complication to pyeloplasty in elderly patients (OR 1.17, 95%CI 0.54-2.52).

Conclusion: Pyeloplasty is safe in elderly patients with 30-day complications comparable to endoscopic UPJO treatment.

Source of Funding: None
SEGMENTAL INFARCTION OF THE TESTES IN ACTIVE DUTY MALE SOLDIER
Timothy Wright, M.D., Carolyn A. Salter, M.D.
Tacoma, WA
Presentation to be made by Dr. Wright

Introduction: Testicular segmental infarct is associated with a range of conditions including epididymo-orchitis, trauma, and vasculitis. It often presents with acute scrotal pain, and imaging typically reveals a focal hypoechoic area that is difficult to distinguish from malignancy. This case report describes the management of a patient with orchalgia and abnormal scrotal ultrasound, initially managed with serial ultrasounds but converted to radical orchiectomy when imaging became more concerning for mass.

Case: The patient is a healthy 31 year old male who presented to the ER with mild right-sided testicular pain. Labs and scrotal ultrasound were normal. He returned the following day with persistent symptoms and on repeat ultrasound, patient was observed to have a new area of hypo-echogenicity with diminished internal flow on the right, consistent with segmental infarction. Clinical exam demonstrated focal epididymal tenderness without palpable intra-testicular mass. Repeat ultrasound at 2 weeks showed persistence of hypoechoic region in right testicle with more mass-like appearance and internal calcifications. Given inability to rule out malignancy, patient underwent radical orchiectomy which demonstrated evidence of segmental infarct but no malignancy.

Discussion: Segmental testicular infarct is benign but it is commonly managed with surgery due to the risk of missed malignancy. In patients who follow through with serial imaging, segmental infraction often demonstrates eventual resolution of the area of interest on ultrasound several months after presentation. This data is limited, however, and the risk associated with a delay in treatment of malignancy is high, especially in a patient who has not demonstrated stability of the lesion on ultrasound.

Conclusion: This case presents a patient with a segmental testicular infarct who was initially managed conservatively with serial imaging, but transitioned to surgical management when imaging became more concerning for mass. While there are increasing efforts to determine ways to avoid surgery for this benign condition, inability to rule out malignancy remains a strong motivating force to operate.

Source of funding: None
ZINNER SYNDROME: A COMMON PRESENTATION OF A VERY UNCOMMON CONGENITAL MALFORMATION

Ryan W. Craig, MD; Michael T. Marshall, MD
San Diego, CA
(Presentation to be made by Dr. Craig)

Introduction/Objectives:
Zinner Syndrome is a rare congenital anomaly that is caused by a malformation of the Wolffian duct, which leads to a triad of an ipsilateral renal agenesis with associated ipsilateral ejaculatory duct obstruction and cystic seminal vesicle (SV). The Wolffian duct, or mesonephric duct, is essential for normal renal development and in males eventually forms multiple key reproductive structures. Around week 5 of embryogenesis, the ureteric bud forms via a diverticulum off of the mesonephric duct. Under normal circumstances, the ureteric bud then travels cranially and eventually fuses with the metanephric blastema, which causes it to differentiate and begin the process of nephrogenesis. In males, under the influence of testosterone, the Wolffian duct will develop into the seminal vesicles, ejaculatory ducts, epididymis, efferent ductules, and the vas deferens. The pathophysiology of Zinner syndrome is a malformation of the distal mesonephric duct which causes abnormalities of the ureteric bud and atresia of the ejaculatory duct. This leads to the renal agenesis, and without sufficient drainage, the ipsilateral SV will dilate and eventually form cystic structures. The association of renal agenesis and cystic SV was first described by Zinner in 1914. It is believed that the majority of those with Zinner syndrome are asymptomatic, which makes it difficult to know its true incidence; however, those with symptoms usually complain of some combination of perineal pain, lower urinary tract symptoms (LUTS), and/or infertility. Due to its rarity, the vast majority of literature on the topic comes in the form of around 200 separate case/series reports. In these case reports, most patients who become symptomatic present between the 2nd and 4th decades of life, likely because this is when the majority are at the peak of their sexual activity. Treatment of the symptomatic patient is focused on either relief of pain or the return of fertility. This is done by either transurethral resection of the ejaculatory duct (TURED) obstruction or surgical removal of the cystic SV.

Here, we present a 34-year-old male with a known history of absent vas deferens and ipsilateral renal agenesis (discovered at time of vasectomy) who presented for recurrent perineal pain. Further work up eventually revealing the addition of cystic SV. Interestingly, this individual had no previous issues with fertility and was also noted to have an ectopic, blind ending ureter. We discuss the ensuing work-up, treatment options, and follow-up.

Case Presentation:
A 34-year-old male with known absence of the left vas deferens and left renal agenesis (discovered at time of vasectomy) presented to the emergency department with several days of sharp perineal/pelvic pain. He stated he has had at least four (4) separate episodes of these same symptoms within the past 10 years and they usually resolved with a prolonged course of ciprofloxacin. Lab work demonstrated a normal UA, a normal CBC without leukocytosis, and a urine culture was negative. During this presentation, he also had fevers and chills so a CT scan of the abdomen and pelvis with contrast was completed which demonstrated significant abnormalities of the prostate, left SV, and confirmed his known left renal agenesis. The CT also demonstrated a tubular structure originating in the left retroperitoneum which appeared to insert into the left prosthetic urethra and was favored to be a rudimentary ureter. The emergency department discharged the patient to home with a 10-day course of ciprofloxacin and Percocet, however his symptoms continued. He re-presented to the ED about one (1) week later and, at this point, urology was consulted.

In the urology clinic, digital rectal exam (DRE) was significant for a tender, palpable left SV with irregular surface contour. Cystoscopy demonstrated a prominent protrusion of tissue at the level of the verumontanum as well as an absent left ureteral orifice. Transrectal ultrasound (TRUS) revealed a cystic component of the left gland of the prostate as well as an enlarged left SV noted. Aspiration of the SV obtained 2 to 3 mL’s of dark maroon, bloody fluid which had no growth on culture. An MRI was obtained which highlighted the cystic SV and confirmed the suspected ectopic ureter which terminated in the prostatic urethra. After a detailed discussion with patient regarding his options for treatment, he opted to proceed with a robot-assisted left SV excision with distal ureterectomy.

Conclusions:
Zinner syndrome is a rare diagnosis that typically presents with some combination of perineal pain, LUTS, and/or infertility. This case adds to the paucity of literature on this topic and highlights the possible anatomical variations of the congenital malformations as well as the treatment options for those who are symptomatic.

Source of Funding:
None.
LATE-STAGE PRIMARY RENAL ANGIOSARCOMA: AN EXTREMELY RARE CANCER COMPLICATED BY COVID-19 POSTOPERATIVELY
Reilly D. Carr B.S.*, Hannah E. Moreland B.S.*, Michael H. Hsia M.D.*
Florence, SC
(Presentation to made by Reilly Carr)

Objectives: Angiosarcoma (AS) is a rare, endothelial cancer that forms in the linings of blood vessels and lymphatics and comprises less than 1% of all soft-tissue sarcomas. Given its endovascular origin, AS can develop anywhere, but involvement of the kidney usually indicates metastasis with widespread systemic disease. AS primary to the kidney is exceedingly rare, and very few cases have been reported in the literature, with most occurring in male patients in the 6th and 7th decades of life. The purpose of this case report is to describe the presentation and disease course of a particular patient diagnosed with primary renal AS in the era of COVID-19, and to contribute to the small fund of knowledge currently surrounding this cancer.

Materials and Methods: For this case report, information from the patient's electronic medical record was used. This included physician notes, operative reports, radiology reports, and pathological reports. Other case reports about primary renal AS were also used for comparison to our particular patient.

Results: The overall survival for AS is reported to range from six to sixteen months after diagnosis, with a median age of diagnosis of 60 to 71 years old. This patient was significantly younger than this range at diagnosis and survived just over six months after presentation. Although he did not have any of the classic exposures associated with AS, he did have other concerning occupational exposures. Other case reports suggest the most important factors in predicting survival are tumor size and metastasis at presentation. Tumors <5 cm may have better odds of long-term survival following resection, but further studies are necessary to create a more reliable cutoff point. This hypothesis is supported by this case given the patient's large tumor size (11 cm) and short survival after resection. Lastly, this case highlights the barriers to care which patients faced during the COVID-19 pandemic. Many patients with multiple comorbidities were unable to receive adequate or continuous care due to concerns surrounding COVID-19.

Conclusions: With very few cases reported in the literature, the disease course and optimal treatments of primary renal AS other than resection have not been well-characterized. More cases are needed to better understand this rare cancer and optimize future management.

Source of Funding: None
Objectives: Prostate cancer (PCa) patients treated with injectable androgen deprivation therapy (ADT) are particularly vulnerable during a pandemic, because they may not be able to self-administer treatment and may require hospital visits for injections. Furthermore, PCa patients require lab tests to monitor treatment efficacy and disease progression, and telemedicine appointments may not be optimal. During a pandemic, physician/hospital visits should be lessened as oftentimes PCa patients are elderly with frequent comorbidities, which thereby increases their infection risk. Therefore, patients may be late for/miss scheduled injections. Achieving/maintaining effective testosterone (T) suppression with ADT is fundamental for advanced PCa treatment, but T may exceed castration level (50/20ng/dL) with delayed doses. Longer-acting formulations with demonstrated T suppression should be considered. 6-month luteinizing hormone releasing hormone (LHRH) agonist formulations typically only require two office visits/year with only two opportunities for 'late' injections if dosing schedule adherence is not maintained. This study evaluated the timeliness of LHRH agonist injections and rate of T >50/20ng/dL.

Methods/Materials: Analysis (1/1/07-6/30/16) of US oncology/urology electronic medical records of PCa patients receiving LHRH injections (n=85,030) was conducted to evaluate frequency of late injections and T >50/20ng/dL. Mean late doses/year for 1, 3, 4, 6-month formulations were calculated by multiplying the proportion of late doses by the total number of doses/year for each formulation. “Late” dosing was defined as occurring after days 33, 98, 129, and 195, respectively.

Results: 27% of LHRH agonists were administered late. Mean late doses/year for 1, 3, 4, 6-month formulations were 5.4, 0.8, 0.8, and 0.6 respectively. 27% of T tests were >50ng/dL with late dosing vs. only 4% with early/on-time doses. 43% of T tests were >20ng/dL for late injections vs. only 21% for early/on-time injections.

Conclusions: 6-month ADT formulations had fewer late doses/year vs. 1, 3, 4-month formulations. Late injections were often correlated with ineffective T suppression and an increased proportion of patients with T >20ng/dL compared to early/on-time dosing. As 6-month formulations of GnRH agonists require fewer clinic and laboratory visits to maintain optimal T suppression and are associated with fewer late doses, clinicians should consider using 6-month formulations during a pandemic or other circumstances where limited visits are desired by the patient.

Funding: Tolmar Pharmaceuticals, Inc.

Reference:
1. Crawford_JUrology_2020
2. Crawford_JUrology_2021
NOVEL DIGITAL HEALTH ENGAGEMENT APPLICATION IN THE SETTING OF PROSTATE CANCER

Jared Adams, M.D., Ph.D.: Palo Alto, CA, USA, Stephanie Bailey: Alexandria, VA, USA, Peter Georgantopoulos, Ph.D., M.P.H., M.A.: Orange County, CA, USA, Leora Sazant: Toronto, ON, Canada, Kelly Mehrer, Ph.D., M.S., M.A: Durham, NC, USA, Oluwafunmi George, B.Sc.: Toronto, ON, Canada, Mike Crosby, CDR. U.S.N. ret.: San Diego, CA, USA

(Presentation to be made by: Leigh Mack, MD)

Objectives: To pilot a novel digital health engagement application that improves medication adherence of antiandrogen chemotherapy and quality-of-life (QoL) among veterans with castration resistant metastatic prostate cancer, and allow information recorded by patients to be stored and summarized in real time for patients and clinical staff.

Materials and Methods: With input from veterans and VA physicians affiliated with the Veterans' Prostate Cancer Awareness Foundation we have been developing a novel digital health engagement application intended to improve the overall quality-of-life (QoL) score of veteran's with metastatic prostate cancer (mPrCA) by (1) encouraging interactions to be maintained between patient and doctor outside of normally scheduled appointments through remote patient monitoring devices and dashboard, (2) a circle of support network for each patient, and (3) interactive tools and validated patient reported outcome measures to facilitate veterans' chronicling their unique health journey. This pilot project will involve the participation of Veterans Health Administration facilities in metropolitan localities. Each site will recruit 15 veterans with metastatic prostate cancer to be followed for a year and who will utilize a novel digital health engagement platform that will assess their clinical health journey and quality of life during that year.

Results: The primary objective for this research is to demonstrate that using a novel digital health engagement application can be used to assess the side effects and severity associated with antiandrogen chemotherapy, understand and address issues associated with the adherence to these medications, and ultimately improve the overall adherence rates and QoL of a patient during the course of his treatment for mPrCA. The second objective is to demonstrate that patient-clinician engagement both increased and is considered to be a positive experience from both the patient and clinician perspective. The third objective is to demonstrate that training clinicians and project coordinators in properly using a novel digital health engagement application is quick and feasible requiring a limited time commitment.

Conclusions: The successful completion of this research will provide guidance and insight that will be used to expand on and improve upon the hypothesis and objectives in a larger study powered to detect additional end points of interest in evaluating the impact of using a novel digital health engagement platform to improve medication adherence and patient QoL. Additional sites are welcome and encouraged to participate in this pilot project.

Source of Funding: none / Conflict of Interest: none
EVALUATING USE OF COGNITIVE-FUSION PROSTATE BIOPSY IN THE DIAGNOSIS OF CLINICALLY SIGNIFICANT PROSTATE CANCER

CPT Melissa J. Smith MD, CPT Arron M. Smith MD*, LTC Ryan W. Speir MD, LTC Ronald J. Caras DO,
Tacoma, WA
(Presentation to be made by Dr. Melissa Smith)

Objectives: Dramatic strides have been made in the screening, diagnosis, and treatment of prostate cancer. Specifically, advancements in MRI technology for evaluation of the prostate, resulting in better imaging and more detailed information to assist in patient evaluation. This is evident by the recent inclusion of MRI in the American Urological Association (AUA) guidelines for the screening and detection of prostate cancer in certain populations. With these advancements in technology have come challenges regarding the interpretation and implementation of this new information into the medical decision making process. Another recent update to the AUA guidelines is the utilization of MRI-targeted prostate biopsies. Cognitive or software-based fusion can be used to aid prostate biopsy performance and increase rates of detecting clinically significant prostate cancer.

Materials and Methods: Retrospective review of all prostate MRIs performed at Madigan Army Medical Center between March 1, 2018 and September 30, 2020. Prostate MRIs were excluded if they were performed for the purpose of radiation planning or cancer staging in individuals who had previously undergone prostate cancer treatment. After identification of qualifying imaging studies, the corresponding medical records were reviewed for demographic and medical data. Individual prostate MRIs were considered positive if a radiologist identified a PI-RADS 3, 4, or 5 lesion. Individuals with a positive MRI then went on to prostate biopsy consisting of both a systematic 12-core biopsy and MRI-targeted sampling of the suspicious PI-RADS lesion by cognitive fusion. The rate of clinically significant prostate cancer defined as Gleason Grade Group 2 or higher diagnosed on MRI-targeted biopsy was ultimately identified and stratified based on their PI-RADS score.

Analysis was performed with R, R Core Team 2017. The data was analyzed with linear regression and Pearson correlation as appropriate.

Results: Of the 337 prostate MRIs performed in the defined time frame, 291 were included. 145 of those individuals had a positive MRI prompting a prostate biopsy. There were 7 individuals who underwent systematic biopsy alone. The remaining 138 proceeded with biopsy which include both a systematic 12-core biopsy and cognitive fusion biopsy of the identified lesion. Prostate cancer was identified in 39 of the cognitive fusion biopsies with 23 of those individuals identified as having clinically significant prostate cancer. The rate of detecting clinically significant prostate cancer on cognitive fusion biopsy was similar to our detection rates on systematic biopsy alone (59 vs 57%). There was a significant correlation between PI-RADS score and Gleason Group Grade from cognitive fusion biopsy (p <0.005).

Conclusions: Recent updates to the AUA guidelines support the use of MRI-targeted prostate biopsies, either cognitive or software-based fusion, to aid prostate biopsy performance by aiming to increase detection rates of clinically significant prostate cancer. This pilot study aimed to define our institutional baseline success rate at identifying clinically significant prostate cancer using cognitive-based fusion prostate biopsies. We found our detection rates of clinically significant prostate cancer were similar between systematic and cognitive fusion biopsy with improved detection combining both techniques. There was also a significant correlation between our ability to detect clinically significant prostate cancer on cognitive fusion biopsy with increasing PI-RADS score. We plan to further evaluate this data with the upcoming incorporation of software-based fusion technology in our practice.

Source of Funding: None
To Our 2022 SGSU Benefactors

DOUBLE DIAMOND
Harold Frazier, MD

PLATINUM
Justin DeGrado, MD
Grant Evans, MD
Steve Lynch, MD

GOLD
Stacey G. Koff, MD
Muta Issa, MD

SILVER
John M. Barry, MD
Eric Biewenga, MD
Joseph Y. Clark, MD
Robert Dean, MD
James Jezior, MD
Sean Stroup, MD
Richard Watson, MD

GRANITE
Patrick Lassen, MD
John Lavelle, MD
Daniel Shannon, MD
Robert Steckler, MD
George Stackhouse, MD

RUBY
Judd Moul, MD
Zorawar Singh, MD
SGSU Member Reception
Saturday, May 14, 2022
4:30pm - 6:30pm
(Place to be announced)

Visit the SGSU Booth #1855
in the Expo Hall

USAV Annual Meeting
Sunday, May 15, 10:30am-2:30pm
(Place to be announced)