Cost-effectiveness of Initial Treatment Strategies for Localized Prostate Cancer: A Systematic Review
B. Malik Wahba, Tarik Phillips, Kenneth Sands DO MBA, Judith Lieu MD MSPH, Alexander K Chow MD, Nicholas Pickersgill MD, Michelle Doering and Eric H Kim MD
Washington University in St. Louis School of Medicine

ABSTRACT IMPACT: We compare the cost-effectiveness of treatments for early prostate cancer, and propose how to maximize the value of care within an increasingly cost-constrained healthcare climate. OBJECTIVES/GOALS: Each year 192,000 men in the United States are diagnosed with prostate cancer. With various treatment options available, there is a growing role for cost-effectiveness analyses which may help maximize the value of care to the patient. In this review we compare the cost-effectiveness of primary treatments for clinically localized prostate cancer. METHODS/STUDY POPULATION: In this systematic review we aim to compare the cost-effectiveness or cost-utility of primary treatment strategies for clinically localized prostate cancer. This review, which adheres to 2009 PRISMA guidelines, included studies of men with clinically localized prostate cancer comparing at least two treatment strategies using the incremental cost-effectiveness ratio (ICER). We included analyses only of the United States healthcare system with at least 10 years of follow-up. These studies were published from 2006 to 2019 and generally included men with low or low to intermediate risk prostate cancer. Most studies reported outcomes for men age 65-70. All studies were prospective simulated trials and used a Markov model to simulate patient outcomes. RESULTS/ANTICIPATED RESULTS: Ten articles were included in the analysis. All studies used a Markov model to simulate a randomized trial. Six studies primarily compared radiation modalities, and four compared observation with immediate treatment. There was substantial heterogeneity in treatment protocols and the patients being simulated. Sensitivity analyses showed these models to be influenced by utility values and length of follow-up. A meta-analysis was not possible as no studies reported the variance of the primary outcome. Heterogeneity in study design limited comparisons of treatments across studies. However, these models were sensitive to patient-specific clinical factors, including life expectancy and the utility during and after each treatment. DISCUSSION/SIGNIFICANCE OF FINDINGS: These studies indicate collectively that the cost-effectiveness of prostate cancer treatment for similarly staged men may be heavily impacted by comorbidities and personal preferences. As the US moves towards value-based care, patient preferences may continue to drive the preferred treatment for newly diagnosed prostate cancer.

Intimate Partner Violence and HIV Testing among Women in Rural Southwestern Uganda
Cassandra Schember1, Jessica Perkins1, Viola Nyakato2, Bernard Kakuhikire2, Allen Kiconco3; Betty Namara4, Lauren Brown5, Carolyn Audet1, April Pettit1, David Bangsberg6 and Alexander Tsai7
1Vanderbilt University; Viola Nyakato, Mbarara University of Science and Technology; 2Mbarara University of Science and Technology; 3University of Witwatersrand; 4MRC/UVRI & LSHTM Uganda Research Unit; 5Nashville CARES; 6Oregon Health & Science University-Portland State University School of Public Health; 7Harvard Medical School

ABSTRACT IMPACT: This research shows that physical intimate partner violence was associated with never testing for HIV while verbal intimate partner violence was associated with increased testing for HIV suggesting that HIV testing interventions should consider intimate partner violence prevention. OBJECTIVES/GOALS: HIV incidence is higher among women who experience intimate partner violence (IPV). However, few studies have assessed the association between HIV testing (regardless of the result) and the experience of IPV. Our objective was to assess the relationship between IPV and HIV testing among women from rural southwestern Uganda. METHODS/STUDY POPULATION: We conducted a whole-population, cross-sectional study including women ?18 years of age who...
were permanent residents in 8 villages of Rwamara District, southwestern Uganda from 2011-2012 who reported having a primary partner in the past 12 months. We surveyed participants to assess their exposure to 12 different forms of verbal, physical, and/or sexual IPV, and whether they had ever been tested for HIV. We used three separate modified Poisson regression models, clustering by village, to estimate the association between each type of IPV and ever testing for HIV, adjusting for categorical age, completion of more than primary education, and any food insecurity measured by the nine-item Household Food Insecurity Access Scale. RESULTS/ANTICIPATED RESULTS: Among 496 women with a primary partner (>95% response rate), 64 (13%) had never tested for HIV, 297 (60%) reported verbal IPV, 81 (16%) reported physical IPV, and 131 (26%) reported sexual IPV. Further, among these women, 208 (42%) were aged <30 years, 378 (76%) had a primary or no education, and 390 (79%) experienced food insecurity. Never having been tested for HIV was positively associated with physical IPV (adjusted risk ratio (ARR): 1.61, 95% confidence interval (CI): 1.02-2.56) and negatively associated with verbal IPV (ARR: 0.67, 95% CI: 0.44-0.99), but not sexual IPV (ARR: 1.05, 95% CI: 0.51-2.12). DISCUSSION/SIGNIFICANCE OF FINDINGS: Among this population of adult women with partners in Uganda, physical IPV was associated with never testing for HIV while verbal IPV was associated with increased testing for HIV. Evidence suggests that HIV testing interventions should consider IPV prevention, and future studies should focus on why certain IPV types impact HIV testing rates.

Implementation of the Capute Scales and Prechtl’s General Movement Assessment in Infants with Single Ventricle Physiology
Johnson TL1, Raiees-Dana H2 and Escapita A1
1University of Arkansas for Medical Sciences; 2Arkansas Children’s Hospital

ABSTRACT IMPACT: Through this research, I will transform the standard of care for infants with single ventricle physiology by incorporating the Capute Scales and General Movement Assessment into day-to-day clinical care for these infants, leading to early detection of neurodevelopmental disabilities and access to proven therapies. OBJECTIVES/GOALS: Our objective was to establish a new protocol to detect and quantify developmental delays in multiple domains in infants with single ventricle physiology, a type of congenital heart disease. This population is at high risk for neurodevelopmental disabilities. METHODS/STUDY POPULATION: We implemented a novel protocol using the Capute Scales and General Movement Assessment to evaluate early language, cognitive, and motor development in infants with single ventricle physiology. The infants were evaluated between 1-5 months of age in the cardiac neurodevelopmental program. We defined our primary outcomes as (1) language and (2) cognitive developmental quotients as per the Capute Scales and (3) results of the General Movement Assessment. We hypothesized that infants with single ventricle physiology would have typical language and cognitive development and normal General Movement Assessment results at their initial evaluation. RESULTS/ANTICIPATED RESULTS: We recruited ten infants with single ventricle physiology. All ten infants had typical language development, and none of the ten had typical cognitive development, as measured by the Capute Scales. All of the infants had gross motor delay. Due to medical instability, we only evaluated four infants with the General Movement Assessment. All four of the infants had a normal result, suggesting that their central nervous system motor pathways were maturing appropriately. In future studies, we will track the neurodevelopmental outcomes of each participant as they mature. We expect to see a decrease in expressive language development and preserved receptive language and cognitive development. DISCUSSION/SIGNIFICANCE OF FINDINGS: The combination of General Movement Assessment and Capute Scales in the evaluation of infants with single ventricle physiology will provide early identification and intervention for these high-risk children, allowing access to proven treatments and therapies.