

COST-EFFECTIVENESS ANALYSIS OF ORAL PHARMACOLOGICAL TREATMENTS OF ERECTILE DYSFUNCTION

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OBJECTIVES: To make a comparative cost-effectiveness analysis for treatment strategies involving PDE-5 inhibitors—sildenafil, tadalafil, vardenafil, or placebo (no treatment) among men 60 years or older suffering from erectile dysfunction. **METHODS:** A Markov decision-analytic model was used to examine cost-effectiveness. The model was run for two lengths of time—lifetime (up to 100 years of age—by when all patients died) and up to 80 years of age (by when all men discontinued sexual intercourse). Markov states were defined as—disease, no disease (cured), morbid (from treatment) and dead (absorbing state). Transition probabilities between states were derived from clinical trials reported in the literature. Costs were assigned from a societal perspective using a combination of published estimates and federal standards. Direct costs of treatment were calculated based on Average Wholesale price of the most common strength of each drug used for 1.5 attempts at sexual intercourse per week on an average. Effectiveness was measured in Quality Adjusted Life Years (QALYs) using utility values assigned to each Markov state—also collected from published studies. One-way sensitivity analyses were performed on effectiveness, cost and utility variables to test robustness of the results. **RESULTS:** Tadalafil treatment was found to dominate all other strategies (including no treatment) in both scenarios. Tadalafil-treated men gain more QALYs than any other strategy at costs less than the cost of other treatment and allied morbidity-related costs. Results remained mostly unchanged in the lifetime scenario after sensitivity analyses. ‘No treatment’ was found to be a better option if there were no long-term costs involved with managing treatment related morbidity. Vardenafil emerged as a better option at thresholds of 66.65% effectiveness for tadalafil or at 73.54% effectiveness for vardenafil. **CONCLUSIONS:** For men suffering from ED, tadalafil use could be more cost-effective than other oral agents or no treatment.

PIH3

and that one-quarter of AUB patients seek medical care, it is estimated that the total direct treatment cost attributable to AUB was \$1 billion annually. Hysterectomy accounted for more than half of this cost. The estimated indirect cost was substantially larger, amounting to approximately \$12 billion per year. **CONCLUSIONS:** AUB imposes a tremendous economic burden on society, with direct and indirect costs adding up to approximately \$13 billion per year. Because studies on presenteeism are currently lacking, the full economic impact of AUB is likely to be underestimated. Further research that quantifies this missing component of overall cost will help to better estimate the burden of AUB and to guide future health resource allocation and clinical decision making.

PIH5

A SYSTEMATIC REVIEW OF ATROPHIC VAGINITIS TREATMENT, DURATION OF THERAPY, AND HEALTH CARE COSTS

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OBJECTIVES: A systematic review of the prevalence of atrophic vaginitis, treatments involved, therapy duration, and associated healthcare costs was undertaken to identify studies with clinical and economic relevance and gaps in literature. **METHODS:** A systematic literature search using an exhaustive list of relevant search terms (1990–2004) was performed to identify articles with qualitative and quantitative data on atrophic vaginitis treatments, treatment duration, and economic impact of treatment duration. Electronic Medline® and PubMed® searches along with manual review of bibliographies were conducted in different phases for article retrieval. **RESULTS:** Out of 35 retrieved studies, 6 were on epidemiology, 14 on treatment patterns, 8 on treatment duration, and 7 studies showed comparisons between vaginal tablets and other vaginal preparations. Overall, studies examining prevalence showed that atrophic vaginitis was commonly occurring among postmenopausal women (10–40%), and affecting as many as 15% of pre-menopausal women and 10–25% of women on systemic hormone therapy. Diagnosis of this condition was low with less than 25% discussing the condition with their healthcare providers and only 20–25% seeking medical attention. Treatment duration was found to be in the range of 2–12 months (weighted average of 4.1 months). Studies on long-term safety and efficacy of treatment are lacking. Vaginal tablets were preferred over vaginal creams due to convenience and ease of administration. **CONCLUSIONS:** No data exist that mirror treatment duration in a “real-world” setting. There is a complete lack of studies correlating treatment duration with overall health care costs both at an individual and national level. Health economic studies examining resource utilization patterns, cost drivers and economic burden of this condition on individuals and society at large were not found. Future research needs to examine relationships between treatment duration, choice of medication, adherence, incidence of adverse events, and resource use and costs.

ECONOMIC BURDEN OF ABNORMAL UTERINE BLEEDING: ARE THERE PIECES MISSING?

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OBJECTIVES: Abnormal uterine bleeding (AUB) is a common gynecological disorder that affects 10%–30% of women of reproductive age, yet the overall economic burden of AUB on society is largely unknown. The purpose of this study is to quantify this burden from a societal perspective. **METHODS:** We conducted a systematic literature review of PubMed for English-language studies published from 1980 to 2005. Outcomes of interest included health care utilization, direct treatment cost, and work productivity loss due to absenteeism and presenteeism (ie, indirect cost) attributable to AUB. The direct treatment cost for AUB includes costs for physician visits, medical therapy, minimally invasive surgery (endometrial ablation), and major surgery (hysterectomy). Using information on disease prevalence, treatment utilization, direct treatment cost per procedure/episode, and indirect cost, we conservatively estimated the economic burden of AUB from a societal perspective. **RESULTS:** We identified 6 studies on the prevalence of AUB and 30 studies on health care utilization. One study evaluated indirect cost due to absenteeism but no study focused on productivity loss due to presenteeism. Assuming that the prevalence rate of AUB is 10%

PIH4

MEDICAL RESOURCE UTILIZATION IN DIAGNOSED PREMATURE EJACULATION PATIENTS

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OBJECTIVES: Estimates show >20% of men are affected by premature ejaculation, yet very few seek health care and are diagnosed by a physician. This retrospective study of US medical

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