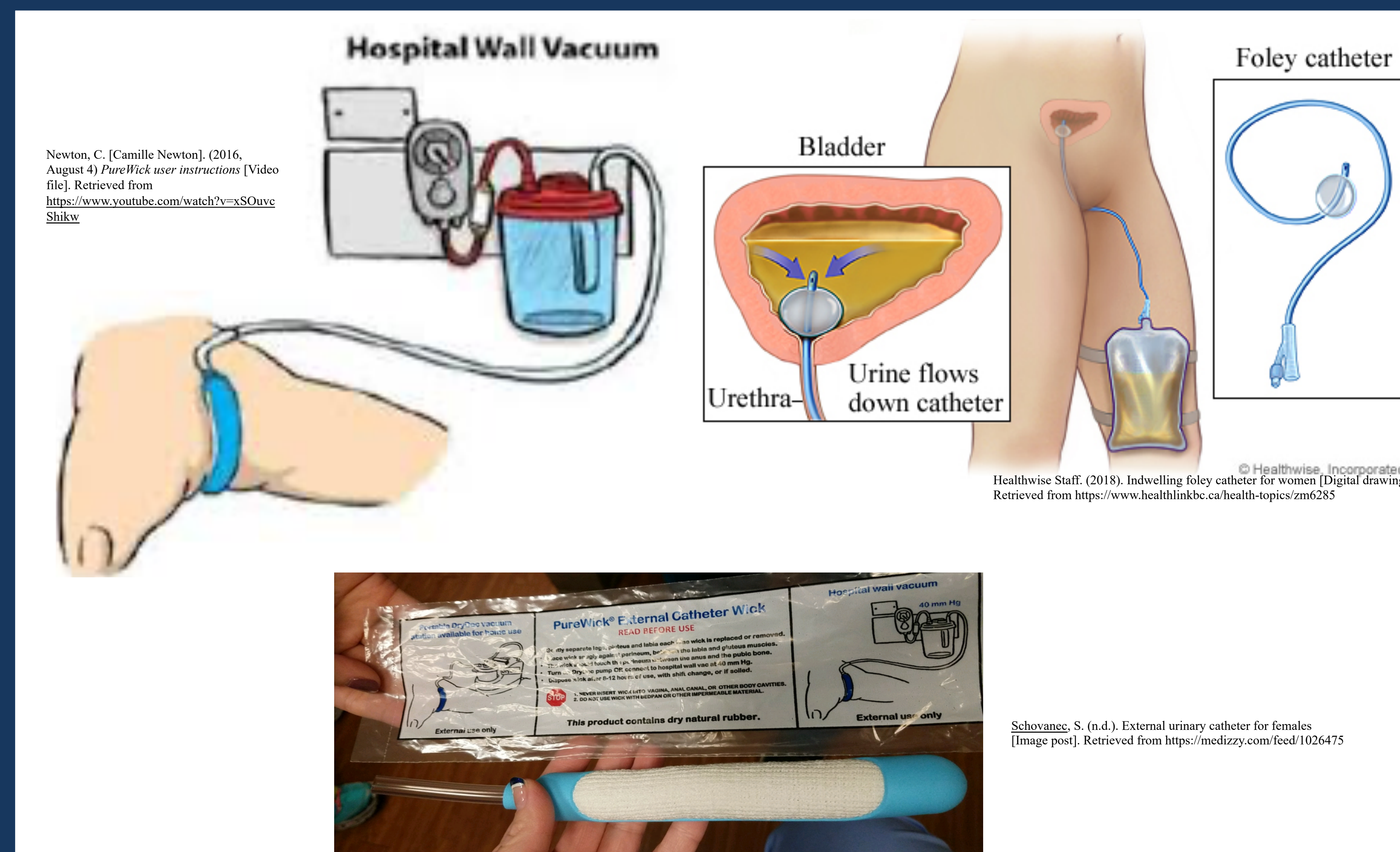


Abstract

There is a variety of genitourinary infection which include but are not limited to catheter-associated urinary tract infections (CAUTIs). These infections are often considered nosocomial because they are commonly contracted in a healthcare environment like hospitals. “The most important risk factor for developing a catheter-associated UTI (CAUTI) is prolonged use of the urinary catheter” (Centers for Disease Control and Prevention [CDC], 2015a, para 1). CAUTIs can lead to increased length of hospital stay, additional treatments for the infection, side effects, and increased patient discomfort (Kelechi, Kelechi, & Qanungo, 2017). Due to this the use of an external female catheter or PureWick® has become a more common practice in recent years. There was not much research about external collection devices in females until a couple of years ago. “External collection devices are defined as a category of devices that adhere to the external genitalia or pubic area and collect urinary output” (Gray, Kaler, & Skinner, 2016, page 2). With the information learned about indwelling catheters, external female catheters like the PureWick® were developed. The PureWick® works by providing continuous suction through the device and urine is collected on the wall by a suction container. “The PureWick® is held in place by the labia and gluteus and the suction is not felt by the patient” (Bard Limited, 2019, ques. 10).



Evaluation & Analysis

After examining the evidence from each of our sources, we determined that external urine collection devices are much safer for use in female patients than indwelling catheters. The use of PureWick's® or other similar devices significantly decreases the risk of developing a genitourinary infection. Indwelling catheters are a breeding ground for bacteria, especially when proper hygiene and care are not performed. “An additional benefit of the female external urine collection device is no residual pooling of urine present at the urethral opening in comparison to male external collection devices, which can still ultimately lead to skin damage or a UTI” (Beeson & Davis, 2018).

Introduction

In urinary tract infections associated with hospital stays, “75% are associated with a urinary catheter, which is a tube inserted into the bladder through the urethra to drain urine” (CDC, 2015a). A catheter-associated urinary tract infection occurs due to the use of an indwelling Foley catheter. According to the Centers for Disease Control (2015b, table I.A.1.), health care providers should “minimize urinary catheter use and duration of use in all patients, particularly those at higher risk for CAUTI or mortality from catheterization such as women, the elderly, and patients with impaired immunity.” In women, there are very few options for external devices, and they’re not seen frequently in hospital settings (Lillis, 2019, para 17). However, more options are starting to become available for females. The female version of the external device “conforms to the perineal area between the labia, against the urethra. The device is connected to low continuous suction providing a sump mechanism to collect and measure urine output. In addition, there is a continuous airflow promoting a microclimate environment to the female perineum region” (Beeson & Davis, 2018, para 3). The research conducted aims to answer: In hospitalized women (P), what is the effect of using a PureWick® (I) on the decreased risk of Genitourinary Infections (O) compared with an indwelling foley catheter (C) within a hospital stay.

Conclusion & Implications for Future Research

Based on the research collected the use of external female catheters like PureWick's® significantly decreases the risk for genitourinary infections like CAUTIs. Unfortunately, since using external collection devices are still a new practice they are sometimes not used enough. Based on the statistics of how common CAUTIs are with indwelling foley catheters they should only be used in emergent situations. PureWick's® can be used when a patient requires “urine output monitoring, urinary incontinence or frequent urination, difficulty ambulating, difficulty using a bedpan, post-surgery, skin irritation, injury or burn, and patient on bed rest” ((Bard Limited, 2019, ques. 1). Since external female collection devices are still new further research needs to be conducted to determine long term effects, outcomes and results relating specifically to genitourinary infections. The limited current data does indicate this the infection rate decreased significantly but research needs to continue.

Methods

The purpose of our research project is to determine if the use of a PureWick® would decrease the risk of contracting a genitourinary infection versus that of an indwelling foley catheter. This literature review is focused on hospitalized patients but also gathers information regarding patients in long-term care facilities in an effort to see if any data is different. The research was gathered using peer-reviewed journal articles, professional websites, and other scientific literature that were published or written within the last five years that had the full text. The following words were searched to find articles: incontinence, CAUTI, external collection device, PureWick, and urinary catheterization. Data and information gathered are summarized in a one-page paper and on this poster that details the findings of the project. The data shows that PureWick's® are more effective in decreasing GU infections than that of an indwelling urinary catheter.

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