

MaineHealth

## MaineHealth Knowledge Connection

---

Nurse Residency

---

Summer 2024

### Purewick Versus Foley Catheters

Ashleigh Lunt

*Mid Coast Parkview Hospital, MaineHealth, Ashleigh.Lunt2@mainehealth.org*

Grace Tibbetts

*Mid Coast Parkview Hospital, MaineHealth, Grace.Tibbetts@mainehealth.org*

Tia Hufstader

*Mid Coast Parkview Hospital, MaineHealth, Tia.Hufstader@mainehealth.org*

Follow this and additional works at: <https://knowledgeconnection.mainehealth.org/nurseresidency>



Part of the [Nursing Commons](#)

---

#### Recommended Citation

Lunt, Ashleigh; Tibbetts, Grace; and Hufstader, Tia, "Purewick Versus Foley Catheters" (2024). *Nurse Residency*. 12.

<https://knowledgeconnection.mainehealth.org/nurseresidency/12>

This Book is brought to you for free and open access by MaineHealth Knowledge Connection. It has been accepted for inclusion in Nurse Residency by an authorized administrator of MaineHealth Knowledge Connection.





# Purewick Versus Foley Catheters

Ashleigh L. RN, BSN, Grace T. RN, BSN, Tia H. RN, BSN



## Background

A Foley catheter is an indwelling urinary drainage device that is placed in a patient's urethra and remains in their bladder, continuously draining urine into a bag. In hospital settings, there are many indications for indwelling catheters such as strict I&O monitoring, incontinence, retention, end of life comfort, surgery, and immobility.

Indwelling catheters can put patients at higher risk for catheter associated urinary tract infections (CAUTI), and therefore should only be used when indications are met.

An alternative to indwelling catheters for female patients are purewicks, an external urinary drainage device that is placed on the patient's urethra and then connected to suction. These external devices are beneficial for those who are incontinent, immobile, or who may require strict I&O monitoring.

## Problem

In hospitalized adult female patients, what is the impact of using purewick external catheters versus indwelling urinary catheters on incidence of CAUTI's?

## Review of Literature

**ARTICLE 1:** Effectiveness of an external urinary device for female anatomy and trends in catheter-associated urinary tract infections

**Purpose:** To determine the effectiveness of an external urinary catheter in preventing CAUTI and dermatitis

**Population:** Critically ill hospitalized female patients

**Methods:** Female patients over seven days examined and tested in 2016, 2018, and 2019.

**Results:** External Catheters were placed correctly "85.5%" with outstandingly lower infection rates up to "43.9%" (Beeson, T. Et al, 2023).

**Conclusions:** External catheters are imperative to decreasing incontinence and infection in ill female patients.

**ARTICLE 2:** Effect of a Female External Urinary Catheter on Incidence of Catheter-Associated Urinary Tract Infection

**Purpose:** Introduction of EUD's in an ICU setting to determine if indwelling catheter use and CAUTI decreased.

**Population:** Adult ICU female patients.

**Methods:** Indwelling catheter and CAUTI rates were logged prior to and after the introduction of EUD's.

**Results:** CAUTI rates were reduced, with events (infections) per 1000 catheter days decreasing from 3.14 to 1.42 following the introduction of EUD's to this unit. Overall catheter use was also decreased by 18.2% (Zavodnick et al., 2020).

**Conclusions:** EUD's are effective in preventing CAUTI have the potential to decrease or rid of the need of indwelling catheters in certain cases.

**ARTICLE 3:** Reducing the Risk of Indwelling Catheter-Associated Urinary Tract Infection in Female Patients by Implementing on Alternative Female External Urinary Collection Device: A Quality Improvement Project

**Purpose:** The reduction of CAUTI's in female patients with implementation of an EUD.

**Population:** Inpatient adult female's requiring urinary management.

**Methods:** EUD's were implemented to supplement this hospitals CAUTI prevention program. An infection prevention department recorded and identified indwelling catheter use and CAUTI cases.

**Results:** One year of this study showed indwelling catheter use decreased from 31.7% to 29.7%, and CAUTI rates decreased from 1.11 cases per 1000 days, to 0% during the allotted time (Eckert et al., 2020).

**Conclusions:** EUD's reduce the need of indwelling catheters and decrease the incidence of CAUTI.

## Future Implications

**NEXT STEPS:**

Implementing the external catheter, when necessary, over a foley catheter to decrease female urinary infection from about "3.14 per 1000 to 1.42 per 1000" (Zavodnick, J., Et al, 2020).

Saving the hospital between "\$500-1000" (Lem, M., Et al. 2022) per patient and prevention CAUTI up to "60%" (Beeson, T., Et al, 2023) within three years of implementing.

## References

Beeson, T., Pittman, J., & Davis, C. R. (2023). Effectiveness of an external urinary device for female anatomy and trends in catheter-associated urinary tract infections. *Journal of Wound, Ostomy & Continence Nursing*, 50(2), 137–141. <https://doi.org/10.1097/won.0000000000000951>

Eckert, L., Mattia, L., Patel, S., Okumura, R., Reynolds, P., & Stuiver, I. (2020). Reducing the risk of indwelling catheter-associated urinary tract infection in female patients by implementing an alternative female external urinary collection device. *Journal of Wound, Ostomy & Continence Nursing*, 47(1), 50–53. <https://doi.org/10.1097/won.0000000000000601>

Zavodnick, J., Harley, C., Zabriskie, K., & Brahmabhatt, Y. (2020). Effect of a female external urinary catheter on incidence of catheter-associated urinary tract infection. *Cureus*. <https://doi.org/10.7759/cureus.11113>



MaineHealth