**Stopping Infection Through HOUDINI**

*Early Removal Prevents Catheter Associated Urinary Tract Infection*

**Authors:** Aileen Rabia, Staff Nurse HDU-A  
Anie Mathew, Charge Nurse HDU-B  
Prescilla Dixon, Charge Nurse HDU-A  
Co-author: Ms. Ma. Leni Garcia, Head of Infection Control

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**Introduction**

What does HOUDINI stand for?  
HOUDINI is an acronym, each letter represents a different reason a nurse should not remove a Foley catheter. It's an easy way to help nurses remember the protocol, and the clear criteria help ensure nurses only remove the catheter when appropriate.  
Here's what the letter stands for:  
Hematoma, gross Obstruction, urinary Urologic surgery Decubitus ulcer (pressure sores) Input / Output fluid monitoring Nursing care only Immobility due to physical constrains

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**Aim**

To reduce the incidence of catheter associated urinary tract infection (CAUTI) to zero in High Dependency Unit patients at the end of December 2017 by identifying promptly the need for a catheter to remain in place or the need to remove it immediately.

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**Does your patient really need that catheter?**

Urinary tract infections (UTI) are the most common healthcare associated infection in acute hospitals. The risk of developing a catheter associated urinary tract infection (CAUTI) increases the longer a urinary catheter remains in site. Although indications for insertion and continuous use are known, there are few tools to aid with removal decision making. This pilot study evaluated the effectiveness of a nurse-led HOUDINI protocol of urinary catheter removal in reducing the number of days of urinary catheter usage, thus potentially reducing the associated risk of a CAUTI.

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**HOUDINI Team**

Project Leader: Ms. Jessy Cherian, Head Nurse  
Team Leader: Ms. Prescilla Dixon, Charge Nurse  
Sponsor: Mr. Emad Ayoub, Director of Nursing  
Coaches: Ms. Ma. Leni B. Garcia, Head of IPC  
Dr. Poornam Gupta, Senior Quality Reviewer  
Members: Ms. Aileen Rabia, Staff Nurse  
Ms. Anie Mathew, Charge Nurse  
Ms. Annal Manuel, Staff Nurse  
Ms. Ann Karine Cunado, Charge Nurse  
Ms. Kristine Iacy, Staff Nurse  
Dr. Salma Sullivan, Fellow Cardiology  
Ms. Cherlyn Simbulan, IC Coordinator

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**Strategy for Change**

**Nurse–driven strategies for CAUTI PREVENTION**

**PDSA Methodology**

- **Plan** – We planned to reduce the prevalence of Foley catheters to help prevent CAUTIs.  
- **Do** – We educated the nurses about when the patients did and did not require a urinary catheter with the use of HOUDINI protocol. To help nurses learn the protocol, we gave them pocket cards spelling out the HOUDINI criteria.  
- **Study** – For 6 months of following the HOUDINI protocol, we have noticed a reduction in urinary catheter utilization.  
- **Act** – HOUDINI protocol will be continuously implemented whenever patient requires a catheter insertion for it has proven to be effective in reducing CAUTIs and can be escalated in other units.

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**HOUDINI Monitoring Sheet**

- **Patient ID**
- **Date of Use**
- **Reason for Use**
- **Reason for Removal**
- **Removal Time**
- **Diagnosis**

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**Data Collection**

Urinary Catheter Utilization in Telemetry Unit, Year 2016  

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**Conclusion**

- There was 25.34% reduction after 6 months of implementation compared to the initial data.  
- The implementation of HOUDINI Protocol has resulted to shortened utilization of urinary catheters thereby reducing the patient’s risk of developing CAUTI when urinary catheter utilization reduction rate increases.  
- It helps nurses and doctors to meticulously assess the need for inserting Foley catheter and it promotes the timely removal of the urinary catheter once it meets the criteria that there’s no further indication for its continuing use.  
- CAUTI rate has shown favorable result after the pilot study. Strict adherence and compliance in the continuous implementation of the HOUDINI protocol will give the best and effective outcome in reducing urinary catheter use and enhancing patient safety.

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**References:**

- Kate Vonderhaar. Frequently asked questions about the HOUDINI Protocol.  

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