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Color Changing Device to Improve Adherence to Foley Catheter Replacement Protocols and Reduce Urinary Tract Infection Frequency

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Title: Color Changing Device to Improve Adherence to Foley Catheter Replacement Protocols and Reduce Urinary Tract Infection Frequency

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Background: Millions of hospital-acquired UTI's are caused by indwelling urinary catheters. The longer a catheter is left in, the greater the risk for infection. Catheters are often left in longer than necessary because physicians are not aware of them or the original indications for placement are not reevaluated. We hypothesize our device will draw attention to indwelling catheters and prompt re-evaluation and removal if necessary.

Methods: We will design a light strip that can be attached to the catheter bag and will turn on to blue after 5 days of placement and purple after 8 days. This will call the physician/medical staff's attention to the catheter and the amount of time it has been placed. We plan to implement our device in a small group of patients and compare their catheter associated UTI (CA-UTI) rates to the rates of a matched group who did not use the device. We will conduct a survey of the medical staff to evaluate if the lights were effective in calling attention to the catheters and prompting reevaluation.

Results: We plan to see a decrease in the duration of catheter placement and number of CA-UTI's in the light group compared to the no-light group. We hope the survey will show our device called attention to the indwelling catheter, prompted re-evaluation of its necessity, and was easy to use.

Conclusions: We hope our device will reduce the number of indwelling catheters left in for over 5-8 days and subsequently the number of CA-UTI's. This will support our hypothesis that our

light prompted re-evaluation and subsequent removal of indwelling catheters. Limitations include small sample size and production and implementation of the device. After we receive our results/feedback we will improve the design so it is more user-friendly and effective at calling attention to indwelling catheters.

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