

## INTRODUCTION

Urinary and fecal incontinence are common syndromes which can lead to significant morbidity, such as urinary tract infection (1). It has been reported that over half of patients residing in long-term care facilities have urinary incontinence and nearly half have fecal incontinence (2). Proper management of urinary and fecal incontinence can be costly due to nursing time (3), but is critical to prevent urinary tract infection. Current management typically includes rapid cleansing with soap and water, however these interventions may be limited in effectiveness due to poor bactericidal activity of soap and water.

The effectiveness of managing incontinence with a one-step antibacterial cleanser for the prevention of chronic urinary tract infection is not well studied.

The objective of this project was to evaluate the impact of post incontinence cleansing of the pelvic area with a novel skin antiseptic for the prevention of chronic urinary tract infection in long-term care residents.

## METHODS

### Study Design and Population

This was a quality improvement project undertaken from January 2014 through December 2014 in sixteen long-term care facilities throughout Illinois. After each episode of urinary or fecal incontinence, the nursing staff cleansed the pelvic area with Theraworx foam per the protocol outlined in Table 1. In-service training on the protocol was conducted in each facility during the first quarter of 2014.

### Study Definitions


A urinary tract infection was defined as the following:

- 100,000 colony forming units (CFU's) of organism/ml obtained aseptically from a) distal end of a catheter; b) sampling port; or c) clean-catch.  
in a resident without previous infection or with negative culture and clearing of symptoms following a previous UTI with other signs and symptoms supportive of infection;
- 100,000 CFU's of a different organism in a subsequent culture, with clinical continuation or deterioration of condition, in a resident with previous UTI; or
- New onset of signs and symptoms of UTI in a resident with or without positive culture.

### Statistical Analysis

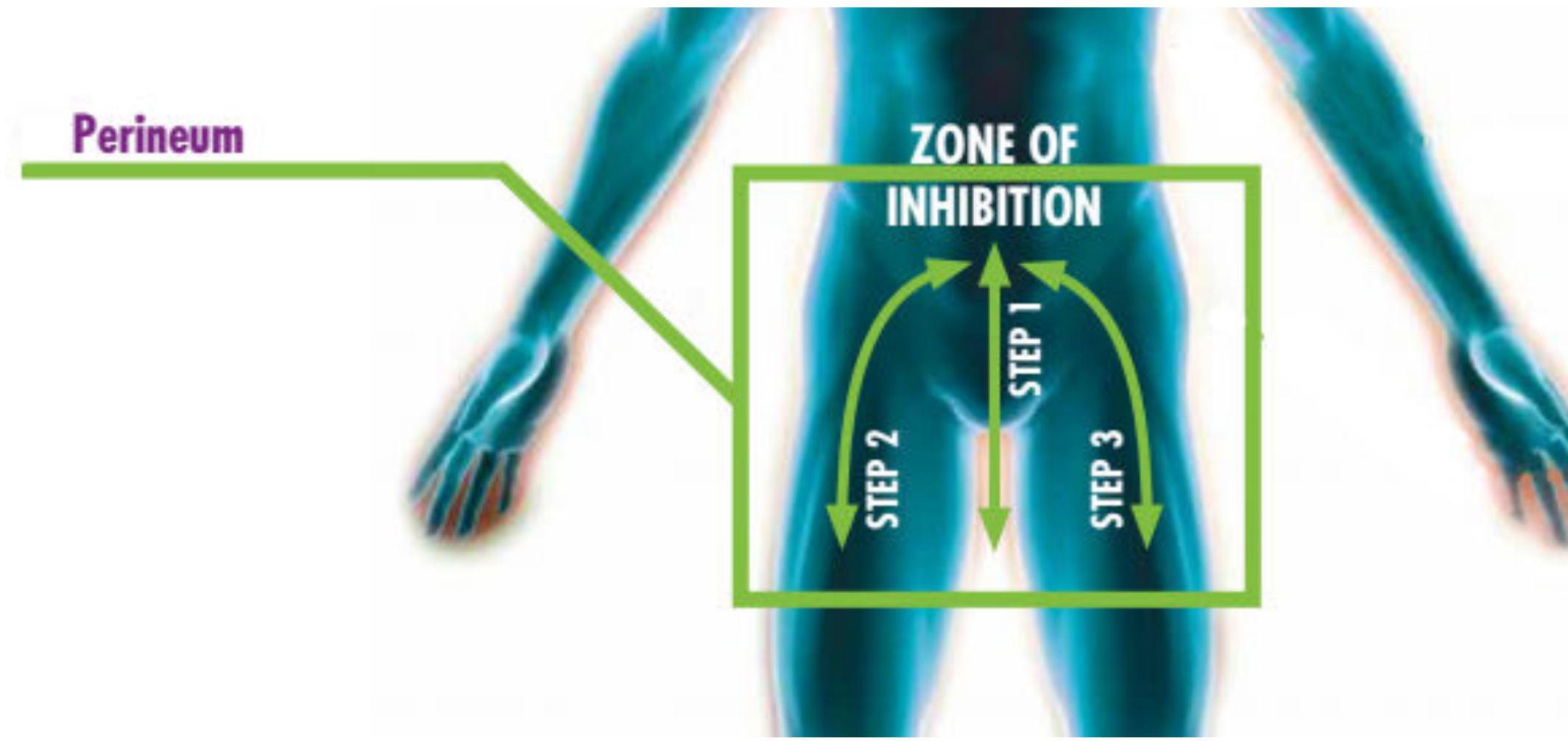
To evaluate the impact of Theraworx on chronic urinary tract infection prevention, a statistical process control u-chart (rates over time from a Poisson distribution) was used. Montgomery rules were used to determine special-cause variation on the charts (4).

## RESULTS

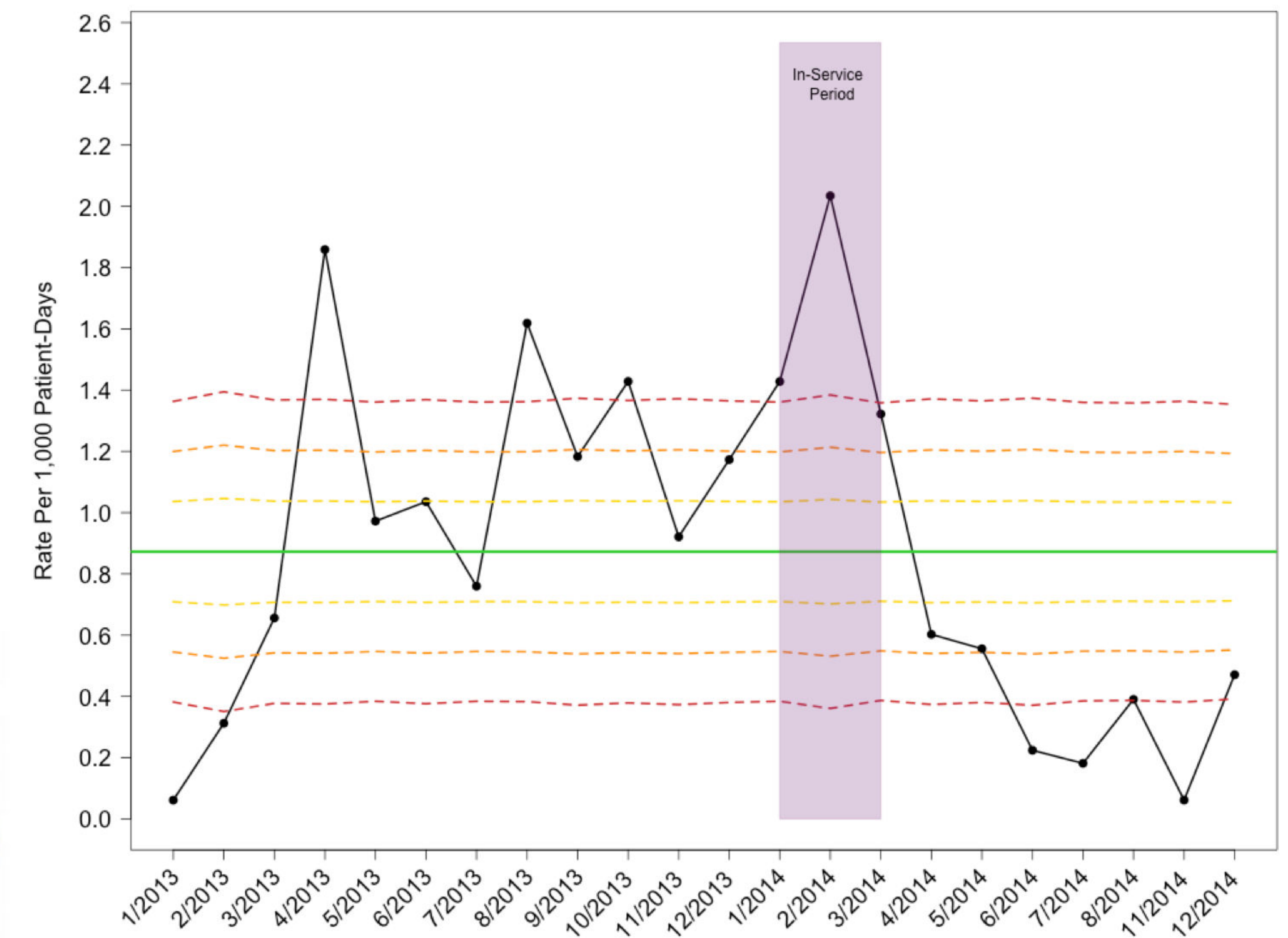


**Incontinence Protocol**

After each incidence of urinary or fecal incontinence, cleanse the umbilical area to mid thigh using a Theraworx wipe or a wash cloth containing 2-3 applications of Theraworx foam. Wipe front to back for women and in concentric circles around the glans penis for men. Allow to dry and do not rinse off (30 second dry time).



**Table 1:** Theraworx Protocol



**Figure 1:** Chronic Urinary Tract Infection Rate Jan 2013 – Dec 2014

## CONCLUSIONS

- ❑ After all facilities completed in-servicing on how to use the Theraworx protocol, the chronic urinary tract infection rate decreased significantly and was sustained throughout the remainder of the project, as indicated by special-cause variation from April 2014 through December 2014 (Figure 1).
- ❑ Theraworx provides many benefits over many other antiseptics including a broad spectrum of activity, pH maintenance, and it is safe to use in the peri-rectal area/mucus membranes.
- ❑ Theraworx appears to be an effective intervention for the prevention of chronic urinary tract infections due to urinary or fecal incontinence.

## REFERENCES

Poster fully funded by "Eblen Charities"

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