External Collection Devices as an Alternative to the Indwelling Urinary Cather Evidence-Based Review and Expert Clinical Panel Deliberations Mikel Gray* Claudia Skinner* Wendy Kaler* (JWOCN May/June 2016)

Article Objectives:

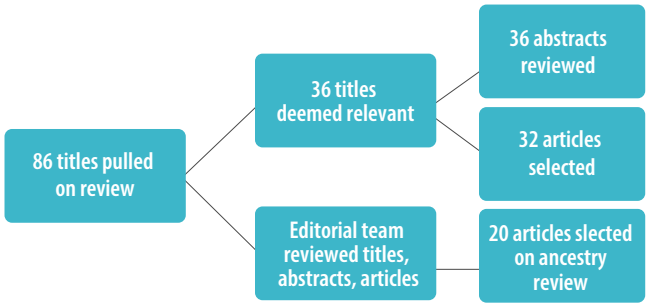
This article presents the results of an expert consensus panel meeting and a systematic literature regarding external collection devices (ECD) use in the clinical setting.

Study Background:

Recent studies demonstrate that CAUTI's are the most frequently reported hospital-acquired infection in the National Health Safety Network (Ref). It is estimated that 13,000 deaths are attributable to CAUTI (ref). CMS named hospital acquired UTI as one of the original "never events" (ref). Effective prevention of CAUTI relies on an intervention bundle, defined as 3 to 5 interventions that together improve patient outcomes (ref). Saint and colleagues identified 4 key elements: 1) urinary catheter reminders or 'stop orders', 2) nurse-initiated discontinuation of indwelling catheters; 3) portable ultrasound to determine post void residual; 4) external continence devices (ECDs) in men (ref). In the guiding statements from the 2009 CDC recommendations stated: "Consider using external catheters as an alternative to indwelling catheters in the cooperative male patients without urinary retention or bladder outlet obstruction (ref).

Ref 1- Stone, P.W. et. Al. State of infection prevention in US hospitals enrolled in the National Health Safety Network. Am J Inf Ctrl 2014; 42. (2) : 94-99.
Ref 2- CDC and Prevention. Urinary Tract Infection (CAUTI) and Non Catheter Associated Urinary Tract Infection (UTI) and other urinary system infections. http://www.cdc.gov/nhsn/pdfs/pscmanual/7psccauticurrent.pdf
Ref 3- IHI. Definition Evidence based care bundles. http://www.ihi.org/topics/bundles/pages/default.aspx
Ref 4- Saint S, Kowalski CP, Kaufman SR, et al. Preventing Hospital-acquired urinary tract infection in the United States; A national Study. Clin Infect Dis. 2008; 46 (2): 243-250.
Ref 5- Gould CV, et al. Guideline for Prevention of Catheter Associated Urinary Tract Infections 2009. Inf Ctl Hosp Epidemiol. 2010; 31 (4): 319-326.

Figure 1



Findings from Cochrane review:

	Bacteriuria rates Condom Cath 70/1000 days vs indwelling Cath 131/1000 days (p=.04)	"...studies illustrate importance of appropriate application due to adverse outcomes. Caregiver training essential.
Cost: ECD vs IDC Prevention	No comparative cost compare Indwelling Vs ECD	Collectively, the CAUTI bundle with ECD's cost effective Vs CAUTI infections outcomes. Caregiver training essential.
Knowledge gaps for proper use of ECDs	ECD comparative effectiveness; efficacy, patient satisfaction, quality of life, caregiver satisfaction.	**Incorporate ECDs into bundles highlighting nurse driven protocols**

Expert Consensus Panel:

Table 1

Titles	Credentials	Facility/Organization
Nurse Practitioner	PhD, APRN, FNP-BC, CUNP,CCCN	Univ. of Virginia School of Nursing
Director of Center of Excellence	DNP, RN, CCRN, CNML, BC-NE	St. Jude Medical center
Clinical Quality Improv. Manager	RN, MSN, CIC, CPHQ	New Jersey Hospital Association
Manager Infection Prevention, employee health, accreditation	RN, BSN, MBA/HCM, CIC	Baylor Medical Center Mckinney
Manager Infection Control	CLS, MPH, CIC	St. Francis Medical Center
Infection Preventionist	RN, CIC	California Hospital Medical Center
	RN, BSN, CIC	St. Francis Medical Center
Manager of Infection Prevention	RN, CIC	CHMC
Director of Infection Prevention	RN, CIC	Dignity Health

Conclusions:

"There is a substantial clinical need for large, well designed comparative effectiveness research studies and cost analysis. Further, evidence-based guidance for nurse driven CAUTI prevention bundles that incorporate ECDs into decision making are needed".

Implications for Practice:

- Table 1 Application Procedure for Male ExternalCather (MLA)
- Table 2 Indications for ECD Use in Male
- Table 4 Recommendations for Improving Use of ECD as part of an Intervention Bundle for Prevention of CAUTI

Scope of Literature Review for ECDs:

1) Review evidence concerning efficacy of ECDs
2) Review evidence concerning cost analysis
3) Identify knowledge gaps and prioritize research needs