

## Identify, Teach and Treat (IT2): Automating Clinical Decision Pathways for the Care of Women



### Lead organization

Northwestern Medicine, Division of General Internal Medicine, Department of Medicine

### Partner organizations

Northwestern Medicine, Division of Female Pelvic Medicine and Reconstructive Surgery/ Urogynecology

Northwestern Medicine, Northwestern Medical Group, Quality and Patient Safety

Northwestern Medicine, Regional Medical Group, Quality and Patient Safety

Wisercare, Inc.

University of Chicago's Department of Obstetrics and Gynecology

### Principal investigators

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### Geographic region

Urban, suburban, rural areas of Northeastern Illinois, including Chicago

### Project period

February 2022 – 2025

### Contact

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### Project Overview

This intervention implements screening for urinary incontinence at the time of pre-visit automated appointment confirmation in women presenting to primary care practice (PCP) annual visits. If screening is not completed prior to the visit, clinical decision support alerts are triggered during the encounter. Women who screen positive for bothersome urine leakage will be directed to the computer-based Wisercare® Urinary Incontinence patient education and shared decision-making tool, which is available in English and Spanish. Wisercare® is embedded into the electronic health record (EHR), and results about patient treatment preference are included in a clinician report available within the patient's chart. To support practice change, clinician education on urinary incontinence (UI) screening is being provided via grand rounds, interactive educational modules, and written resources. This project utilizes practice facilitation and alignment with organizational quality improvement processes to support changes in workflow. Implementation will occur in 65 primary care practices through a tiered approach, beginning in five clinics and then scaling to 20, 40, and 65 clinics.

### Characteristics of the Primary Care Systems and Patients Served

IT2 is being implemented in Northwestern Medicine (NM), an integrated healthcare system with a shared quality improvement and IT infrastructure, including a system-wide EHR (EPIC). Of approximately 65 adult primary care practices, 44% are Family Medicine, 55% are Internal Medicine, and 1% include both. There are over 300 physicians and 30 advanced practice providers (i.e., Physician Assistants and Advanced-Practice Nurses).

The average practice serves about 3,500 female patients, with a mean age of 48.9 years, annually. In the two years prior to the grant period, NM Primary Care saw 279,293 distinct adult women, including 23,000 non-Hispanic Black women, 14,000 Asian women, and 21,000 women of Hispanic ethnicity. The median household income ranges from \$14,000-\$64,000 across practices. Furthermore, a substantial number of women have comorbidities related to UI including overweight (26%), obesity (30%), and diabetes (8.4%).

This project is being conducted within a networked system and has the support of specialty and primary care leadership.

### Goals

IT2 seeks to create a sustainable, automated pathway within Northwestern Medicine's healthcare system for UI screening and non-surgical treatment in primary care practices that will become a standard within the health system and require minimal ongoing support.



## Aims

1. Estimate the prevalence and incidence of UI in a diverse, large, integrated health system.
2. Determine whether historical reporting of UI was dependent on any provider characteristics.
3. Describe and compare UI treatment options preferred by patients.
4. Describe the impact of automated UI screening on the utilization of UI treatments.
5. Assess PCP satisfaction and changes in workload following the implementation of UI screening and automation of education and referral services.

## Evaluation Overview

IT2 is using a mixed-method approach. Quantitative evaluation will assess the prevalence of UI two years pre- and post-implementation of the intervention, as well as newly diagnosed incidence post-implementation, validated by a chart review, using ICD-10 codes and text mining, to better understand under-diagnosis. An analysis of the Wisercare® post-module survey will be conducted to assess patient knowledge changes, preparedness for clinical discussion, and satisfaction. The proportion of patients who prefer each treatment option will be assessed through metrics captured in Wisercare®. The proportions of patients with bothersome UI receiving referrals to nonsurgical and surgical treatments will be analyzed. Lastly, PCPs will be sent a web-based survey before and after implementation to assess satisfaction and knowledge related to UI screening.

Qualitative evaluation will include semi-structured interviews with PCPs, patients, clinic staff, and operational leaders to develop and refine improvement strategies. Interview design will be informed by the Consolidated Framework for Implementation Research (CFIR). A rapid qualitative analysis approach will be applied to support timely feedback and rapid cycle improvement.

## Quick Numbers as of January 2024

Number of participating practices: **22 clinics**

Number of women reached/contacted: **10,351**

Number women completed screening: **8,793**

Proportion of women who screened positive for UI: **19%**

## Notable Features

- Computer-based, patient-facing workflow to increase screening for UI.
- Use of a comprehensive, condition-specific, computer-based decisional aid that offers simply worded patient education and incorporates patient treatment goals into an algorithm that produces a treatment preference map.
- Integrated IT and quality improvement structures across the healthcare system.
- Builds on existing relationships between clinical departments, IT, and health system administration to better integrate care across the system from screening to treatment.
- Attention to reducing work for PCPs.

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“Women with urinary incontinence deserve to be heard. They deserve education about the problem and treatment options. We want them to know that surgery is not the only choice, and we can reach them in the community without sending them to subspecialists or increasing the burden of our primary care physician colleagues.”

– Sarah Collins, MD, FACOG, FACS  
Co-Investigator  
University of Chicago  
Urogynecologist

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