



TEMPLATES AND FORMS



SHARED CARE FINAL PROJECT REPORT

Project Title	Reducing Wait Times for Prolapse and Incontinence Patients (SCC4510)
Project Timeline	June 9, 2020 - June 30, 2024
Fundholder / Organization	Fraser Northwest Division of Family Practice
Physician Leads	Dr. Sara Houlihan, SP Lead Dr. Sanja Matic, FP Lead
Project Lead	Sanjam Laura Cindy Young (September 2023 onwards)
Date of Submission	September 11, 2024



ABSTRACT

Introduction

The “*Reducing Wait Times for Prolapse and Incontinence Patients*” initiative began due to long wait times to see a urogynecologist and insufficient information being received on referrals leading to inefficient triaging of patients. The aim of the project was to reduce wait times from 23 months to 17 months for prolapse and incontinence patients.

Methods

The project implemented a detailed patient care pathway by developing a collaborative urogynecology-family physician clinic model. Family physicians received specialized training in pelvic medicine and worked alongside urogynecologists who triaged patient cases based on symptom severity and treatment options. Additionally, education sessions were hosted to increase primary care provider knowledge and confidence in pelvic floor disorders. To evaluate project outcomes, a mixed-methods design of collecting both qualitative and quantitative data was used.

Results

After the clinic intervention, the average wait time was 4.9 months to be seen by a specialized family physician. A total of 102 patients were seen across 16 clinic days and 72.5% (n=74) of patients were treated by the specialized family physician. 85.6% (n=16) of patients were satisfied with the length of time it took to get an appointment. As a result of the intervention, there was a 4% reduction in urinary distress symptoms, 7% reduction in pelvic organ prolapse symptoms, 6% improvement on quality of life, and 11% improvement in daily functioning on average among 8 patients. An average score of 88% (n=24) on understanding when to refer to a specialist was reported among the primary care providers who attended an educational workshop and 92% (n=22) experienced increased confidence in identifying red flags among patients. Primary care providers also agreed that the Pelvic Floor Disorders Algorithm was easy and applicable to use, with 95% of them feeling confident in utilizing it in their workflows. Similarly at another educational workshop, an average score of 82% (n=13) was reported among attendees agreeing that the session provided knowledge on when to refer to a specialist and an average agreement score of 71% (n=13) was reported among attendees with understanding how to perform investigations to evaluate their patients.

Conclusion

Overall, the project accomplished its goal of reducing wait times for patients with pelvic floor disorders by establishing a collaborative urogynecology-family physician clinic. Through increased referring provider knowledge of how to identify and manage pelvic floor disorders, improved referrals and triaging system, and an added resource of the specialized family physician providing increased access to care, more time was freed up for the urogynecologists to see more complex patients requiring surgical care and patient health outcomes improved. The physicians remain committed to continuing the clinic and are exploring adjustments needed to the clinic operations to ensure proper remuneration under the new LFP payment model.



INTRODUCTION

The Fraser Northwest Division of Family Practice (FNW DoFP) encompasses Family Physicians in New Westminster, Coquitlam, Port Coquitlam, Port Moody, Anmore and Belcarra representing the catchment area of the Royal Columbian and Eagle Ridge Hospitals. The FNW DoFP deeply respects and acknowledges the privilege of being able to work on the ancestral, traditional and unceded territory of the Coast Salish Nations, including the K^wik^wə^łəm (Kwikwetlem) and Qiqéyt (Key-Kayt) nations. The FNW DoFP remains mindful of the health inequities and is committed to better understand the needs of Indigenous peoples.

The “*Reducing Wait Times for Prolapse and Incontinence Patients*” initiative began in 2020 due to lengthy wait times for a urogynecologist consultation for surgical procedures. It is estimated that up to 11% of all women will undergo at least one surgery to correct pelvic organ prolapse or urinary incontinence in their lifetime (Olsen et al., 1997). However, patients with pelvic floor disorders were waiting on average 23 months from referral to consult and even longer to undergo surgery. During this time, patients' quality of life can suffer greatly. Urogynecology patients awaiting surgery for pelvic organ prolapse showed similar emotional distress and disability compared with orthopedic patients awaiting hip or knee replacement based on a validated Health Related Quality of life (HRQOL) questionnaire (Leong et al., 2017).

Additionally, family physicians receive little training during residency around pelvic floor disorders leading to a lack of understanding of treatment and management options. Family physicians also reported patients minimizing their symptoms due to stigma and embarrassment. As a result of this, referrals contained insufficient information and red flags were being missed such that surgical cases requiring more urgent care were mixed with less severe cases that may only need conservative treatment, thus delaying care.

A solution to increase triage efficiency by developing a collaborative model with primary care providers was required in order to increase access to timely care and improve the quality of referrals. The aim of the project was to reduce wait times by 6 months for prolapse and incontinence patients by implementing a detailed patient care pathway in a successful urogynecology and family physician care model.

Project Objectives

The objectives of the project were to implement the following activities:

1. Establish and implement a collaborative urogynecology and family physician care model.
2. Host a series of educational workshops for primary care providers to increase awareness of resources and confidence in providing care related to common pelvic floor disorders.
3. Create a comprehensive pelvic floor disorder pathway and algorithm for primary care providers to refer to.
4. Create patient handouts and resources to increase the health literacy and education of patients with urogynecological symptoms and conditions.



METHODS

Interventions, Activities, and Deliverables

The project timeline with key milestones are detailed in the visual below:



Establish and Implement a Urogynecology and Family Physician Clinic

Dr. Sara Houlihan, the urogynecologist lead of this project, proposed an interdisciplinary care model that proved successful in clinics in Saskatchewan and Alberta. The model involves a urogynecologist working with a specialized family physician at the same clinic, at the same time to encourage team based collaboration and shared learnings. The proposal was presented at committee meetings where it garnered interest from Dr. Sanja Matic, the family physician lead of the project. Refer to figure 1 in the appendix to view the strategic plan prepared by Dr. Sara Houlihan.

The first phase included upskilling the family physician, Dr. Matic, who followed an extensive curriculum which included specialized training in women’s pelvic medicine through the American Urogynecologic Society (AUGs), textbook readings, in-person shadow clinics with the urogynecologist and more. At the same time the training was being completed, clinic workflows, referral processes, patient intake forms, patient resources and evaluation metrics were established to assist day to day operations. The group also decided on the clinic name, the Pacific Coast Urogynecology Institute (PCUI). Refer to figure 2 in the appendix section to view the PCUI Binder which documents the clinic processes.

Once the family physician was specialized and the clinic operations were sorted, this allowed the urogynecologist to begin triaging mild to moderate patients to the family physician to provide



comprehensive care such as education, conservative management, as well as general care for comorbidities and related problems. While the urgent, complex or severe patients were expedited to be seen by the urogynecologist. A detailed triage pathway can be found in the appendix (refer to figure 3). To view the curriculum for the specialized family physician, refer to pages 16-24 of the proposal [here](#).

From May 2022 to June 2024, a total of 102 new patients were seen over 16 clinic days with 46 receiving follow up care. In 2023, the specialist lead went on maternity leave and in an effort to keep up with the waitlists and spread learnings, other physicians were recruited to the clinic. Dr. Ana Boskovic also received specialized family physician training on pelvic floor disorders and Dr. Merry Gong was recruited as the urogynecologist expert. Dr. Merry Gong and Dr. Ana Boskovic continued clinic operations until the specialist lead returned back from maternity leave.

Provider Education and Algorithm

On February 19, 2020 a workshop was held before the project started to help inform the gaps in care. After conducting the needs assessment activities, two more in-person workshops were held to increase primary care provider's familiarity with identifying, treating and managing pelvic floor disorders. A total of 68 primary care providers participated in the learning sessions. A visual summary of each event can be found in the appendix and the evaluation is provided in the Results section.

In addition, a Pelvic Floor Disorder Algorithm was developed by the physicians involved in the clinic. The algorithm is a clinical tool focused on 4 conditions with clinical pearls on diagnosing, treatment and management options, as well as patient resources. The algorithm works with the Pathways infrastructure to host resources and allows users to email resources to patients.

- Pelvic Floor Prolapse
- Stress Urinary Incontinence
- Overactive Bladder
- Recurrent Urinary Tract Infection

The finalized [algorithm](#) was shared at the May 16, 2024 workshop to complement the presentation and serves as a functional resource for primary care providers to refer back to. The algorithm was also published on Pathways and the division's newsletter. A copy of the algorithm is provided in the appendix (refer to figure 6).

Target Population

The target population for this initiative includes women with urogynecology issues and conditions. This initiative also involves family physicians, nurse practitioners, and urogynecologists that are engaged in the patient's circle of care within the FNW region.



Engagement Strategy

Family physicians, nurse practitioners and urogynecologists were recruited to participate, stay informed and provide feedback in committee meetings. The project activities were brainstormed and prioritized by the committee based on the findings of the needs assessment activities. A total of 11 family physicians, 4 nurse practitioners and 3 urogynecologists participated in the ongoing committee meetings and in the development of the project.

Data Collection Methods

The evaluation approach included a mixed-methods design (i.e. collection of both qualitative and quantitative data) with physicians, specialists, patients and program administrators. Wait time data will be collected through physicians EMRs. Patient outcomes will be compared pre and post clinic intervention through standardized and validated patient symptom surveys. Qualitative data such as patient and provider satisfaction was collected through surveys and interviews. The committee ensured the data collected reflected a developmental lens that focused on continuous quality improvement and linked back to the overall project goals. Refer to table 1 in the appendix to view the specific data collection methods for this project.

RESULTS

Improved Patient Experience

Goal/Anticipated Outcome	Results
<p data-bbox="185 1148 433 1533">Patients feel well enabled with resources, and feel supported and confident with a collaborative plan. Has individual self-management skills, knowledge and awareness of resources</p> <p data-bbox="185 1575 423 1780">Patient experience and satisfaction regarding access to services and coordination of health care</p>	<p data-bbox="459 1148 1398 1255">The Patient Satisfaction Survey was distributed to patients who accessed the PCUI post-treatment, with a total of 41 patients completing this survey. Below are the metrics (<i>full responses can be found here</i>):</p> <ul data-bbox="509 1289 1414 1709" style="list-style-type: none"> ● 85.6% (n=16) of patients were satisfied with the length of time it took to get an appointment ● 98% (n=21) of patients were satisfied with how their questions were answered ● Similarly, 99% (n=21) were satisfied with the overall care received at the PCUI ● 98% (n=20) of patients were satisfied with the counselling that was received ● 60% (n=5) of patients reported having a good understanding of self-management practices they can apply ● 48% (n=5) of patients reported having good understanding and awareness of the available community resources <p data-bbox="459 1751 1222 1780">Qualitative feedback was also shared in regards to the clinic:</p> <ul data-bbox="509 1789 1425 1885" style="list-style-type: none"> ● <i>“My first visit but was pleased to be able to get a professional assessment of my prolapse. I was originally told that it would take 2 years to even see the gynecologist. Very happy to get a phone call to come and see [the</i>



family physician] and will be scheduled for a pessary fitting. Just keep up the great work!"

- "I like the fact that I can make my own decisions & have a choice if my decision isn't working for me. The specialist were thorough in the examination of my prolapse."

A **patient journey map** was created detailing a patient's experience seeking care at the ER for pelvic floor prolapse without a family doctor and the adverse impacts on their quality of life and mental well-being. No physical exams were done and only until the patient's condition declined significantly did it prompt an urgent referral to the urogynecologist. Although the patient continues to require management after surgery, she expressed satisfaction with the care that was received and having tried different treatment options while waiting for surgery. A snippet of the journey map is shown below, and the full visual can be found in the appendix (refer to figure 7).



Improved Provider Experience

Goal/Anticipated Outcome	Results
<p>Primary care provider feels supported and both primary care provider and specialist sees merit and satisfaction with model of care and experience</p> <p>Increase confidence in referral pathways based on</p>	<p>The referring provider survey was distributed to all physicians who referred their patients to the clinic, the PCUI between August 2022 to June 2024, with a total of 15 respondents. Below are the reported metrics (<i>complete results can be found here</i>):</p> <ul style="list-style-type: none"> • 40% (n=6) of providers agreed and 13% (n=2) strongly agreed that the PCUI improved their overall satisfaction with provision of patient care [Shared Measure M0001] • 67% (n=10) were neutral that the intervention improved coordination of care with other physicians (i.e. Urogynecologists), while 27% agreed (n= 4) [Shared Measure M0005] • 20% (n=3) agreed and 27% (n=4) strongly agreed that the intervention resulted in increased collaboration between family physicians and specialists [Shared Measure M00012] <p>Below are anecdotal feedback obtained from providers:</p>



algorithm education

Increase confidence for providers to identify women pelvic comorbidities, red flags and other associated diseases

Providers feel more confident in managing women's health needs in the interim before seeing specialist

- *“Was not aware this clinic was even in existence, thought this was a pilot study assessing need”*
- *“In the end patients seemed to get navigated through the system to someone most appropriate for them and in a more timely way”*

The **Urogynecology Workshop** on May 16, 2024 was hosted and a total of 24 respondents completed the post-event survey. Below are the survey results:

- An average score of 88% was reported on knowing when to refer to a gynecologist, urogynecologist and/or a urologist based on clinical presentations of medical symptoms (n=24)
- An average score of 78% was reported on confidence in identifying women with pelvic comorbidities and associated diseases amongst patients (n=24)
- 92% of providers experienced increased confidence in knowing how to identify clinical red flags among their patients (n=22)
- 95% of providers felt confident utilizing the Pelvic Floor Disorders Algorithm into their clinical workflow (n=24)
- All participants expressed positive comments regarding the algorithm, below are some anecdotal feedback:
 - *“Clear. Clinically applicable. Great embedded links.”*
 - *“Easily Accessible. The links to resources and treatment options are all in one place.”*
 - *“The information & ease of going from one probable diagnosis to another as well as the ability to email information to patients.”*

The **ATE: Gynecology Incontinence Management Workshop** on July 7, 2022 equipped providers with the necessary tools to manage women's health needs. Below are the results:

- An average score of 82% (n=13) was reported among attendees agreeing that the session provided them with the knowledge to identify patients that are needing a referral to a specialist
- 71% (n=13) of providers agreed that the session provided them with good understanding of how to perform physical exams and know which tests to order to further evaluate patients

The Pelvic Floor Disorders Algorithm was posted on Pathways in May 2024. Page view counts collected through Pathways show that there were 21 page views in May and 10 page views in June.



Improved Population Health

Goal/Anticipated Outcome	Results
<p>Improved health outcomes of patients</p> <p>Improved quality of life of patients</p>	<p>To evaluate patients' health, a questionnaire containing validated Patient-Reported Outcome Measures (PROMs) was distributed to patients at baseline (prior to seeking care at the PCUI) as well as post-intervention. The pre-intervention survey received 46 patient responses, and the post-intervention survey received 8 responses. Please note the responses are expressed using an adjusted scale for the following metrics, accompanied by the respective scale used:</p> <ul style="list-style-type: none"> ● 4% reduction in urinary distress related symptoms (Urinary Distress Inventory - 6) ● 16% increase in colorectal-anal distress related symptoms (Colorectal-Anal Distress Inventory - 8) ● 7% reduction in pelvic organ prolapse distress health-related symptoms (Pelvic Organ Prolapse Distress Inventory - 6) ● 1% increase with pain experienced during intercourse and fear of incontinence impacting sexual intercourse (Pelvic Organ Prolapse/Urinary Incontinence Sexual Function - 12) <p>The EuroQol 5-Dimension 5-level (EQ-5D-5L) is a multi-validated tool which assesses health-related quality of life for mobility, self-care, usually daily activities, pain/discomfort and anxiety/depression. Refer to figure 8 in the appendix to view the pre-and post-intervention results. Below are the results following the intervention:</p> <ul style="list-style-type: none"> ● Mobility: 7.5% reduction in experiencing problems when walking ● Self-care: 5% reduction in experiencing problems washing or dressing one self ● Usual activities: 5% reduction with problems which accompany work, study, housework, family or leisure activities ● Pain/Discomfort: 12.5% reduction in pain/discomfort ● Anxiety/Depression: No changes in anxiety and depression ● On average, there was a 6% improvement on quality of life as a result of the intervention. <p>Quality of life (QoL) was measured using the Global Wellness Scale and the Pelvic Floor Impact Questionnaire Short Form 7 (PFIQ-7) assessed the impacts of daily functioning (i.e. emotional health, ability to conduct daily activities). Refer to figure 9 in the appendix to view the pre-and post-intervention averages across all patient-reported outcome measures. Patients reported the following:</p> <ul style="list-style-type: none"> ● Overall, patients reported a 3% reduction in their health post-intervention, as assessed through the Global Wellness Scale



	<ul style="list-style-type: none"> Patients reported an 11% reduction in challenges accompanied by daily functioning, including conducting daily household tasks, the ability to travel by bus or care greater than 30 minutes from home, participating in social activities outside of the home and improved emotional well-being
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Reduced per Capita Cost of Health Care

Goal/Anticipated Outcome	Results
Decrease in wait time for patients to be seen by specialists or family physicians	Over the course of the intervention, a total of 102 patients were seen by the specialized family physician between the months of May 2022 to June 2024, across 16 clinic visits. Below are the key metrics: <ul style="list-style-type: none"> 27% of patients were referred immediately to the urogynecologist lead following their initial appointment with the family physician, as their conditions were deemed complex (n=28) Another 6% were referred to the specialist lead after attempting conservative treatment options with the family physician (n=7) As a result, 72.5% of patients did not need to be a referred to the urogynecologist (n=74)
Increased access to family physicians which helped reduce specialist load	
Increased access for complex patients to see the urogynecologist	Prior to this intervention, the initial wait time to be seen by a specialist for surgery was 23 months. The estimated wait time to be seen for an initial appointment by a family physician is now 4.9 months.

DISCUSSION

Interpretation

Increased Access to Care

The project successfully achieved its goal of reducing wait times to six months as patients were seen on average within 4.9 months by the specialized family physician. Patients received timely and appropriate care in this model, proving it to be an efficient system. It's important to note that the wait time data for the specialist is unavailable as the physician went on maternity leave, resulting in an inaccurate baseline for comparison. As the majority of patients saw the family physician first, this ensured that non-surgical candidates did not wait years in the standard waitlist to begin conservative management and medical treatment. This freed up time for the urogynecologist to provide surgical treatment and management to more patients to prevent further complications and progression of their condition. For the small percentage of patients seen by the specialized family physician and deemed too complex, proper physical examinations and education were completed to help provide sufficient information and their case was fast-tracked for the urogynecologist.



Increased Provider Knowledge

As a result of the education sessions and knowledge sharing with primary care providers in the community, more precise referrals and identification of patients symptoms have also resulted in better triaging based on the urgency of patients conditions. It can be assumed that with increased provider confidence and knowledge of pelvic floor disorders, patients would receive timely management in a primary care setting, resulting in improved patient outcomes and population health. This could result in less referrals being sent to the specialist and a change in the utilization of resources in the system. As well, utilization of the Pelvic Floor Disorder algorithm could lead to increased provider retention of knowledge and streamlined access of information for patients.

Improved Patient Outcomes

The change in PROMs scores indicated improvements in symptoms among patients who were seen at the clinic. To compare the results found at the clinic, we identified what was clinically significant in literature. For instance, the PFDI-20 showed a 9 point improvement for patients seen at the clinic, short of the Minimally Clinically Important Difference (MCID) of 13.5 points found in literature (Wiegersma et al., 2017). The best outcomes were observed in treating prolapse and urinary incontinence, which was the main focus of the project, but not in bowel symptoms leading to a lower overall score. The EQ-5D-5L scale indicates a difference of 2.5% is the MCID (Harvie et al., 2019), meaning there were global improvements in mobility, self-care, daily activities, and pain/discomfort, except for the anxiety/depression scale which saw no change. The PFIQ-7 showed an 11% change, just below the 12% MCID (Barber et al., 2005).

It's important to note that the MCID scales found in literature typically compare surgical patients, as opposed to the majority of patients in our project who received conservative care. Another gap is that the post-intervention PROMs questionnaire was sent near the project's completion, meaning some patients did not receive the questionnaire until 1 year after their last appointment, during which their symptoms may have changed or worsened. Another limitation was that the questionnaire was developed mid-way through the project and distributed electronically. Patients seen earlier or those who do not have an email address were not able to fill out the survey. As well, Google Forms was used as the survey platform so patient identifiers were not collected to avoid privacy issues. Instead, appointment dates and times were collected, however, this data was unreliable in some cases and was difficult to trace back the patient's file. Hence only 32 patients out of the 42 patients who responded to the pre-intervention survey received the post-intervention survey. Only 8 responded to the post-intervention survey, possibly due the shorter time frame given to complete the survey or a loss of interest as there was a delay between their last appointment to when they received the survey.

The patient satisfaction survey contained questions pertaining to self-management practices and patients' understanding of available community resources which were incorporated towards the end of the data collection process, resulting in a smaller sample size (n=5), when compared to other questions throughout the survey (n=21). It is important to recognize that interpreting just the patient satisfaction survey and the PROM survey poses challenges on the impact on patients conditions and lives. One physician noted that, *"2 patients said it was life changing because they were able to receive care quicker and better. They are able to get on with their lives faster without having to worry about their health concerns."*



Lessons Learned

The successes of this project are highlighted through highly committed physicians who provided strong leadership and direction. This project was made possible by Shared Care funding with opportunity to refine and continuously improve on the clinic model, create tangible resources to support the clinic and needs of the community, and bring together primary care providers in the community in hosting educational workshops. It is also important to mention that existing resources utilized in this project are funded by the physicians, including resources like MOA support and the clinic space.

Some gaps and challenges that emerged from the project include the lack of clinic space, reducing the potential to recruit more physicians to the clinic. As well, the inability to bill on the new LFP payment model due to restrictions on the proportion of patients that are outside of the family physician's patient panel reduces compensation significantly. This issue is not unique to this project as the maternity clinics in the FNW region have also experienced similar challenges.

Additionally, more administrative support is needed as informing patients of the pilot project and providing them the option to be seen quicker by the specialized family physician requires extra time and education. Due to time constraints, the project was unable to host community education sessions with patients on pelvic floor disorders. Instead, informational patient handouts were developed and resources were included in the Pelvic Floor Disorders algorithm.

CONCLUSION

Overall, the project accomplished its goal of reducing wait times for patients with pelvic floor disorders by increasing access to care via the implementation of a collaborative urogynecology-family physician clinic. The physicians are committed to continuing the clinic's operations and are currently evaluating how to adapt clinic workflows in response to the new LFP payment model.

The next steps include engaging with the maternity clinics to understand their strategy in managing the billing challenges. Additionally, engaging in discussions with the Ministry and Doctors of BC is essential to understand solutions. If not viable, alternative workflows such as working from separate clinics will need to be piloted. Unintended consequences such as reduced collaboration and information sharing will need to be further explored.

As well, ongoing education for primary care providers is necessary to retain and increase management of patients with pelvic floor disorders. The Pelvic Floor Disorders algorithm will be sustained through Pathways and has been reviewed by the provincial Pathways committee to be approved as a provincial content item. The algorithm will also be updated yearly to ensure relevance. From a systems perspective, it is essential to integrate women's health and pelvic floor disorders into medical school and residency curriculum to enhance exposure. Increased patient education efforts are also needed to reduce stigma, raise awareness of alarming symptoms and treatment options.



APPENDICES

STRATEGIC PLAN:
Reducing Wait Times for
Prolapse and Incontinence Patients

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1. Detailed Referral Form for GPs Prepared by Dr. Sara Houlihan
2. Curriculum for GP Specialized in Women's Health Prepared by Dr. Sara Houlihan
3. Saskatchewan Pelvic Health Pathway
4. A Comparison of Health-Related Quality of Life of Women Awaiting Pelvic Organ Prolapse Surgery versus Hip or Knee Replacement

Figure 1. Refer [here](#) to view the full proposal and strategic plan for Reducing Wait Times for Prolapse and Incontinence Patients.



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Binder:

Pacific Coast Urogynecology Institute

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Figure 2. Refer [here](#) to view the Pacific Coast Urogynecology Institute (PCUI) Binder.



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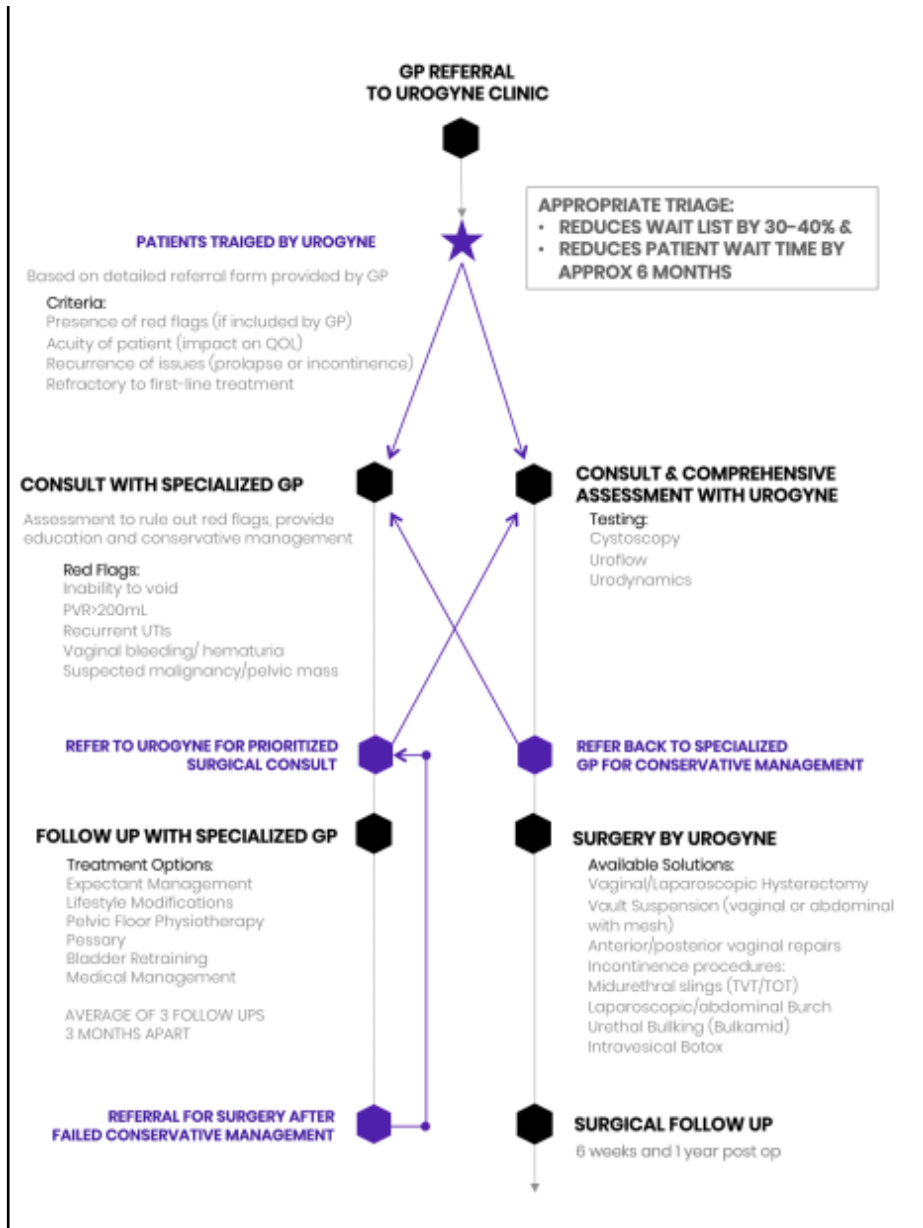


Figure 3. The Proposed Treatment Pathway can be found on [page 4](#) of the proposal



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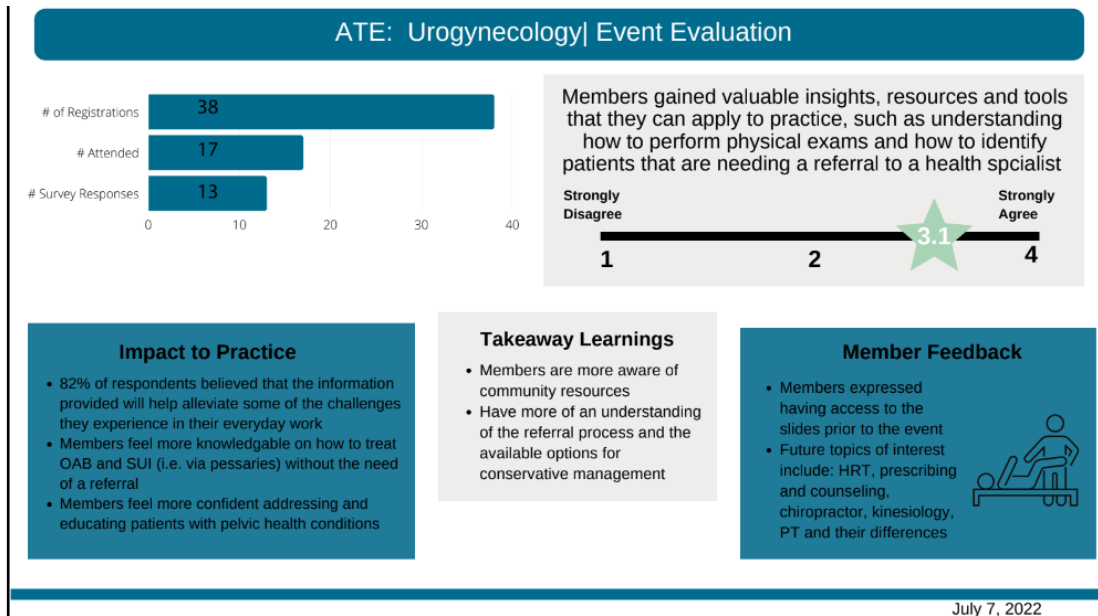


Figure 4. The Ask the Expert: Urogynecology Session took place on July 7, 2022.

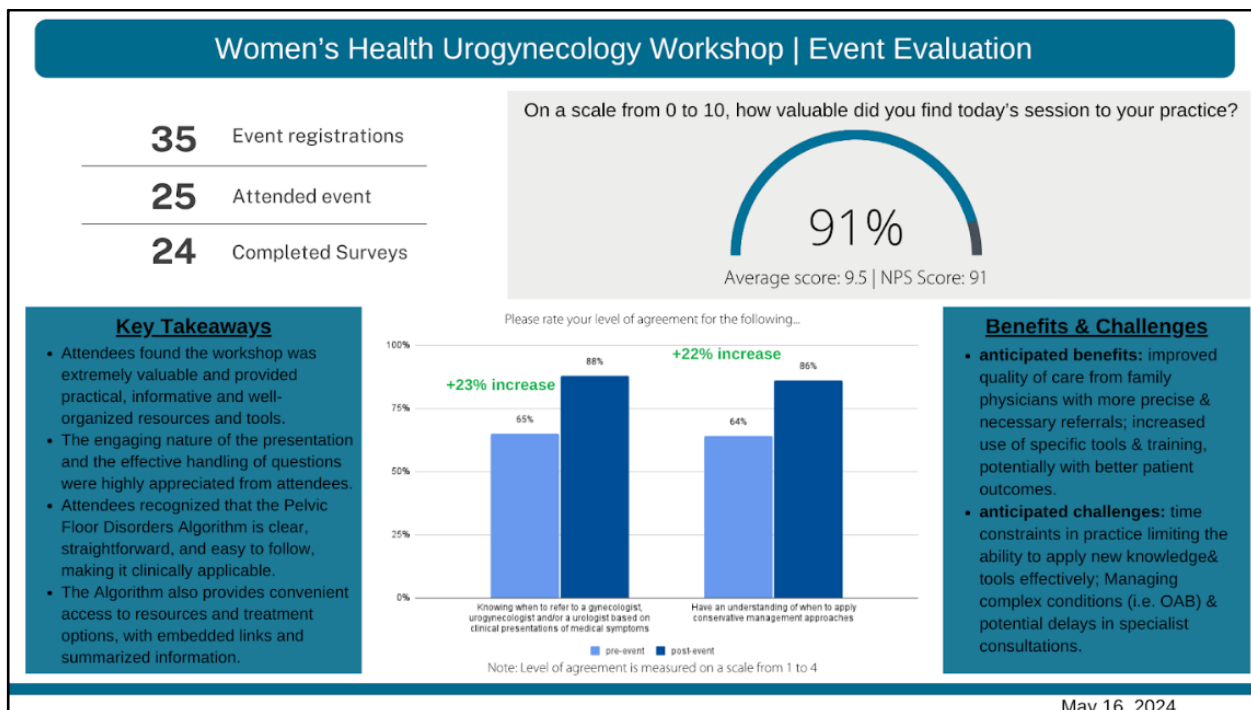


Figure 5. The Women's Health Urogynecology Workshop took place on May 16, 2024.



Pelvic Floor Disorders Algorithm

Quick



REFERRAL TO A SPECIALIST

- Once patient has confirmed that pelvic floor disorder is affecting function and quality of life AND patient has trialed and failed conservative management
- Review referral requirements in Pathways for local [urogynecologists](#), [gynecologists](#), or [urologists](#) in your area.

Pelvic Organ Prolapse

Definition	Bulging or herniation of pelvic organs (uterus, bowel or bladder) through the vagina/perineum.
Demographics/ Epidemiology	50% of women who have had a vaginal delivery will have some degree of prolapse. 11-19% lifetime risk of undergoing prolapse or incontinence surgery. Handout: Pelvic Organ Prolapse ✉ email to patient
Risk Factors	Pregnancy, vaginal delivery (risk increases with increasing parity), age, obesity, hysterectomy, Family history, connective tissue disease, chronic valsalva/stress on pelvic floor
History	HPI: classic symptoms: <ul style="list-style-type: none"> • Presence of vaginal bulge • Pelvic heaviness/pressure • External rubbing/bleeding • Difficulty voiding/BM with associated splinting • Decreased sensation during intercourse NB: pain, dyspareunia and bloating are not typical symptoms. HOW bothersome Timeline Previous treatments
Physical Exam	<ul style="list-style-type: none"> • External genitalia (atrophy, genital hiatus, obvious prolapse) • Speculum exam: degree of prolapse • Bimanual: uterine size, kegel strength • DRE if defecatory complaints
Investigations	<ul style="list-style-type: none"> • UA/UC if symptoms of UTI • Post-void residual • Pelvic U/S
Red Flags	Hematuria, recurrent UTIs, elevated PVR (>200mL), palpable bladder after voiding, pelvic/renal mass, vaginal fistula, neurologic deficit
Referrals	Click here for all gynecologists accepting referrals for pelvic organ prolapse on Pathways



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Management	Details	Resources	Email
<p>POP is NOT life threatening. It only needs to be treated when it is impacting function and/or quality of life. If it does cause bothersome symptoms, consider conservative management. This includes:</p>			
Lifestyle changes	Try to avoid heavy lifting, chronic straining (i.e. constipation), quit smoking and gaining weight.	<ul style="list-style-type: none"> - Excess Weight Handout (IUGA) - Constipation Handout (AUGS) - Low-dose Vaginal Estrogen Handout (AUGS) 	<ul style="list-style-type: none"> ✉ ✉ ✉
Pelvic floor exercises or physiotherapy	Exercising weakened pelvic floor muscles may help improve or prevent worsening of early stage prolapse. A specialized pelvic floor physiotherapist may help guide these exercises.	<ul style="list-style-type: none"> - Pelvic Floor Exercises (IUGA) - Pelvic Floor Physiotherapists in BC Directory (Be Pelvic Aware) 	<ul style="list-style-type: none"> ✉ ✉
Vaginal devices	Vaginal devices that reduce the bulge/herniation of pelvic organ by providing mechanical support thus relieving symptoms. Pessaries may be used to avoid surgery, while waiting for surgery or between pregnancies if your family is not yet complete. Pessaries are fitted by trained health care providers. They may require some trial and error.	<ul style="list-style-type: none"> - Vaginal Pessaries Information (IUGA) - Pessary care instructions for health care providers (PCUI) - List of physicians providing pessary care on Pathways - List of pessary care providers for public to access 	<ul style="list-style-type: none"> ✉ ✉ ✉
<p>If conservative management fails, a urogynecologist or gynecologist can assess a patient for surgery. Click here for a list of physicians on Pathways.</p> <p>Two main options for surgery include: reconstructive surgery and obliterative surgery.</p> <p>The most appropriate surgical treatment is based on a number of factors including severity of prolapse, desire to remain sexually active or not, general health including previous surgeries.</p>		<ul style="list-style-type: none"> - Colpocleisis (AUGS) - Anterior vaginal repair (AUGS) - Posterior vaginal wall and perineal body repair (AUGS) - Sacrospinous fixation (AUGS) - Uterosaral ligament suspension (AUGS) - Uterine Preservation surgery for prolapse (AUGS) - Vaginal Hysterectomy for prolapse (AUGS) - Sacrocopopexy (AUGS) 	<ul style="list-style-type: none"> ✉ ✉ ✉ ✉ ✉ ✉ ✉ ✉
<p>See supplementary algorithm for reference in the appendix here.</p>			



Stress Urinary Incontinence			
Definition	Involuntary loss of urine on effort, physical exertion, sneezing, coughing		
Demographics/ Epidemiology	Prevalence 46%, Increases with age: peak of 50% >40yo, Fewer than 40% of affected women seek care Handout: Stress Urinary Incontinence Handout (AUGS) ✉ email to patient		
Risk Factors	Pregnancy, vaginal delivery, age, obesity, hysterectomy, Family history, connective tissue disease, chronic valsalva/stress on pelvic floor		
History	Urinary leaking with stress (ex. Cough, laugh, sneeze, exercise), leaking with walking and going from standing to sitting, coital incontinence		
Physical Exam	GU exam: vaginal atrophy, skin changes due pads, prolapse, Cough stress test (bladder must be full)		
Investigations	Urine dipstick/urinalysis IF sx of UTI, U/S for PVR, hydroureter/nephrosis, pelvic/renal masses, Bloodwork including Cr (To ensure general health optimized (OSA, DM))		
Red Flags	Hematuria, recurrent UTIs, elevated PVR (>200mL), palpable bladder after voiding, pelvic/renal mass, vaginal fistula, neurologic deficit		
Referrals	Click here for all gynecologists accepting referrals for stress urinary incontinence on Pathways		
Management	Details	Resources	Email
Lifestyle modifications	Weight loss, exercise, and pelvic floor muscle training	Bladder Training - A Guide for Women (IUGA)	✉
Pelvic physiotherapy		Pelvic Floor Physiotherapists in BC Directory (Be Pelvic Aware)	✉
Vaginal devices	Uresta, Impressa, Pessary	Vaginal Pessaries Information (IUGA) - Pessary care instructions for health care providers (PCUI) - List of physicians providing pessary care on Pathways - List of pessary care providers for public to access Uresta.com (website) → Efficacy Impressa (website)	✉ ✉ ✉
Vaginal estrogen		Low-dose vaginal estrogen handout (AUGS)	✉
Surgical treatment options	Refer to your local Urogynecologist	Urethral bulking handout (AUGS) Mid-urethral sling handout (AUGS)	✉ ✉
See supplementary algorithm for reference in the appendix here .			



Overactive Bladder	
Definition	Syndrome of urinary urgency due to over-activation of the detrusor muscle, usually with urinary frequency and nocturia, with or without urinary incontinence.
Demographics/ Epidemiology	Affects approximately 16% of women across all ages. Prevalence of detrusor overactivity has been found in 21% of healthy, continent, community-dwelling older adults. Handout: Overactive Bladder Handout (AUGS) ✉ email to patient
Risk Factors	Age (main risk factor), UTIs, bladder stones, bladder growth/lesions.
History	<ul style="list-style-type: none"> ● Urinary URGENCY – will have the urge to urinate, even without a full bladder. <ul style="list-style-type: none"> ○ Important to discern how OFTEN the patient has the urge to urinate. ○ To get a better idea of urination frequency/symptoms: BLADDER DIARY ✉ <ul style="list-style-type: none"> ■ Inquire about fluid intake patterns (amount, type, timing) ● +/- incontinence ● Typically accompanied by symptoms of urinary frequency and nocturia → discern how many times per night they are waking ● ? any UTI symptoms ● ? any prolapse symptoms/bulge sensation
Physical Exam	<ul style="list-style-type: none"> ● Abdomen: ? suprapubic tenderness, palpable bladder ● GU examination: <ul style="list-style-type: none"> ○ External genitalia: atrophy, obvious prolapse ○ Speculum exam: prolapse, discharge, etc ○ Bimanual: ? tenderness
Investigations	<ul style="list-style-type: none"> ● Urine dipstick/urinalysis, +/- urine culture to rule out UTI ● Post-void residual ● Renal ultrasound (? Bladder mass)
Red Flags	Hematuria, recurrent UTIs, elevated PVR (>200mL), palpable bladder after voiding, significant smoking history, bladder mass, neurological deficit
Referral	Click here for all general urologists on Pathways.

Management	Details	Resources	Email
Treat any co-existing conditions:	If there is evidence of vaginal atrophy or history recurrent UTIs, treat with vaginal estrogen	Vaginal Estrogen Therapy (AUGS)	✉
	If there is evidence of prolapse: pessary	Vaginal Pessaries Information (IUGA)	✉
Lifestyle/ Diet Changes	Avoiding triggers such as coffee, tea, soda, other caffeinated beverages. Avoiding fluids 2 hours before bedtime.	Overactive Bladder (AUGS)	✉
Bladder retraining	Training the bladder to be able to hold more urine, and for the mind to resist the urge sensation. Refer to a pelvic floor physiotherapist for pelvic floor	Bladder Training - A Guide for Women (IUGA) Pelvic Floor Exercises (IUGA)	✉



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	exercises and to assist with bladder retraining. Pelvic Floor Physiotherapists in BC Directory (Be Pelvic Aware)		
Medical treatment	If bladder retraining not effective or severe symptoms, consider medical management: 1) Beta-3 Agonists: a. Mirabegron 25 or 50mg QD i. Side-effects: hypertension, headache ii. NO anticholinergic side effects iii. Expensive 2) Anticholinergics: b. Fesoterodine 4mg PO QD c. Oxybutynin 2.5-5 mg BID or TID i. Risk of typical anticholinergic side effects ii. Avoid use in elderly due to risk of delirium iii. Cheaper option than Mirabegron		
Botox	If no success with the above, refer to urogynecology or urology , for consideration of botox treatment to bladder wall <ul style="list-style-type: none">Will wear off over time, requiring repeat injections	Botox Injections to Improve Bladder Control (AUGS)	
<i>See supplementary algorithm for reference in the appendix here.</i>			



Recurrent UTI	
Definition	>2 culture-positive UTIs in 6 months or >3 in one year
Demographics/ Epidemiology	50% - 60% of adult women will experience a UTI in their lifetime. Recurrent UTI affects 25% of women with a history of UTI. Handout: Urinary Tract Infections (IUGA) ✉ email to patient
Risk Factors	Increased frequency of intercourse, use of spermicide, new sexual partner, postmenopausal women, pelvic organ prolapse, elevated post void residual, diabetes mellitus, urinary incontinence
History	Document symptoms and signs that characterize rUTI episodes and exclude other disorders that could cause the patient's symptoms (e.g. bacterial vaginosis, vaginal yeast infection, STIs). Ask about the relationship of UTIs to sexual activity, prolonged bladder holding, and bowel irregularity. Rule out noninfectious pelvic and urinary tract sources of symptoms (e.g. overactive bladder, radiation cystitis, bladder pain syndrome, vulvodynia, pelvic organ prolapse, urinary retention/poor bladder emptying, and neurogenic bladder).
Physical Exam	Assess for hygiene and fecal contamination, look for urethral diverticulum, vaginal discharge and/or yeast, vaginal cysts, atrophic vaginitis, and pelvic organ prolapse. If prior mesh or pelvic surgery, consider cystoscopy.
Investigations	Send urine specimen for urinalysis (UA) if symptoms suggestive of UTI. If positive, send the specimen for urine culture and sensitivities. If microscopic hematuria in the absence of infection work-up alongside initial therapy. If sterile pyuria, rule out STIs and urinary TB (AFB's). If asymptomatic bacteriuria, do not treat. Assess for bacterial persistence, if present considers cross-sectional imaging (retroperitoneal ultrasound) and +/- cystoscopy.
Red Flags	Persistent hematuria despite adequate control of infections, persistent sterile pyuria, ongoing pain, prior urinary tract surgery, prior abdominal or pelvic malignancy, prior pelvic radiation, obstructive voiding symptoms

Management	Details	Resources	Email
Behavioral and lifestyle measures.	<ul style="list-style-type: none"> ● Diabetic patients: Control blood glucose and avoid glucosuria ● Fluid intake: Maintain adequate hydration (Hooten recommended drinking 1.5 L of water daily along with the suggestion to start a 500 mL bottle of water at the beginning of every meal and fully drink it before the next meal). ● Probiotic: Use of either oral or intravaginal probiotics to restore the natural vaginal microbiota (Lactobacillus spp. Colonies) seems to be a promising approach to reducing antibiotic consumption and to decreasing antimicrobial resistance. Lactobacilli may especially be useful for women with histories of recurrent, 	Urinary Tract Infections (IUGA) Recurrent Uncomplicated Urinary Tract Infections in Women: AUA/CUA/SUFU Guideline (2022)	✉



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	<p>complicated UTIs or on prolonged antibiotic use. Dietary sources of probiotics may be helpful, these include probiotic yogurt (such as Activia), Greek yogurt, kefir and kombucha juice.</p> <ul style="list-style-type: none"> • Cranberry supplements • D-Mannose 2g daily (evidence poor). • Voiding habits: Avoid prolonged holding of urine, avoid delaying urination • Hygiene: Avoid disruption of normal vaginal flora with spermicides and/ or harsh cleansers. Avoid soaking in tubs, hot tubs and in baths. • Sex: Void before and after intercourse and avoid sequential anal and vaginal intercourse • Bowel Regimen – If diarrhea and/or fecal incontinence are present, start loperamide. If mild-moderate constipation is present begin bowel regimen including increasing dietary fiber, stool softener, and/or Miralax. If moderate-severe constipation is present begin bowel regimen (as above) if not on one and consider referral to Primary Care/GI if refractory. 		
<p>Consider vaginal estrogen for postmenopausal women</p>	<p>Vaginal estrogen can be prescribed as Estrace cream 1 gram or Premarin cream 0.5 grams, Vagifem (Yuvaferm) 10 mcg tablets (all can be used daily for 2 weeks then twice weekly), Estring.</p>		
<p>Antibiotics Treatments</p>	<ul style="list-style-type: none"> • Clinical practice guidelines recommend utilization of short duration nitrofurantoin (100 mg BID x 5 days), trimethoprim-sulfamethoxazole (100mg/800mg BID x 3 days), or fosfomycin (1 packet x 1 dose). • Follow up in 6 months with the maintenance of records of all symptomatic episodes, antibiotic use, UA, and urine culture results. If 2 or more infections in 6 months move to continuous or post-coital prophylaxis. • Discuss risks of long-term antibiotics. <ul style="list-style-type: none"> ○ Nitrofurantoin – risk of pulmonary toxicity. Risk of acute pulmonary reaction is 1/5000. Chronic pulmonary reaction (eg pulmonary fibrosis) is 1/750-7500. Instruct patient to report change in SOB and cough. Consider baseline and 6 months CXR. The Beers Criteria for potentially inappropriate medication use recommends avoiding long-term nitrofurantoin for cystitis prophylaxis in patients ≥ 65 yrs due to potentially irreversible pulmonary fibrosis concerns. 	<p>Recurrent UTI: Antimicrobial Prescribing (NICE)</p> <p>> See supplementary algorithm for reference in the appendix here.</p> <p>What is the risk of pulmonary toxicity with nitrofurantoin (MACROBID)?</p>	



	<p>AGS 2015 (strong recommendation, low quality of evidence)</p> <ul style="list-style-type: none"> ● Seeking medical help if symptoms of acute UTI develop while on prophylaxis. ● Return for review within 6 months. <ul style="list-style-type: none"> ○ Assess prophylaxis success ○ Reminder about behavioral and personal hygiene measures ○ Discuss whether to continue, stop or change antibiotic prophylaxis. 		
Referrals	Click here for all urologists accepting referrals for recurrent urinary tract infections on Pathways		

Table 2. Antimicrobial prophylaxis regimens for women with recurrent urinary tract infections

Oral regimens	
Continuous prophylaxis	
TMP-SMX	40/200 mg daily
TMP-SMX	40/200 mg 3x/week
TMP	100 mg daily
Nitrofurantoin monohydrate/macrocrystals (Macrobid)	50–100 mg daily
Nitrofurantoin macrocrystal (Macrochantin)	50–100 mg daily
Cephalexin	125–250 mg daily
Cefaclor	250 mg daily
Norfloxacin	200 mg daily
Ciprofloxacin	125 mg daily
Cinoxacin	250–500 mg daily
Post-coital prophylaxis (single dose)	
TMP-SMX	40/200 mg
TMP-SMX	80/400 mg
Nitrofurantoin macrocrystal (Macrochantin)	50–100 mg
Cephalexin	125–250 mg
Cinoxacin	250 mg
Ciprofloxacin	125 mg
Norfloxacin	200 mg
Ofloxacin	100 mg

Reference: Annette Epp, Annick Larochelle, No. 250-Recurrent Urinary Tract Infection, *Journal of Obstetrics and Gynaecology Canada*, Volume 39, Issue 10, 2017, Pages e422-e431, ISSN 1701-2163, <https://doi.org/10.1016/j.jogc.2017.08.017>.

Figure 6. The Pelvic Floor Disorder Algorithm. Also available by logging into Pathways [here](#).

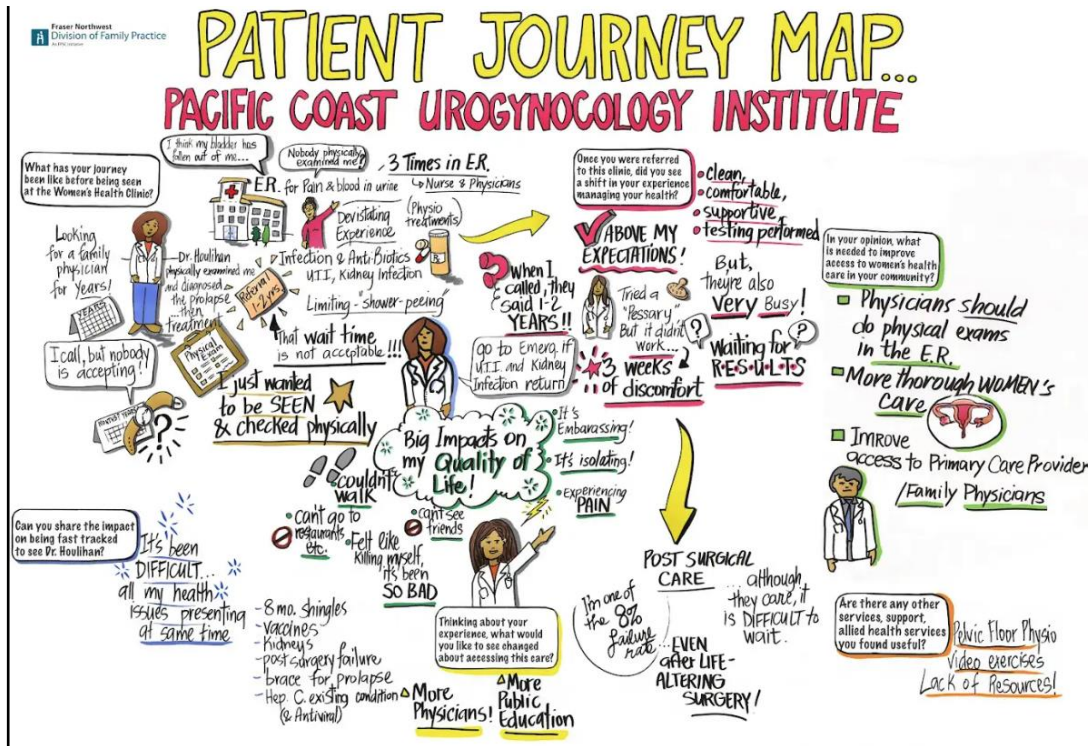


Figure 7. Patient Journey Map at the Pacific Coast Urogynecology Institute (PCUI).

Data collected	Method
Needs assessment	- Public patient survey - Provider survey
Patient experience and satisfaction accessing the clinic	- Patient survey - Patient journey mapping
Comparison of patient outcomes before and after accessing the clinic	- Pre and post surveys: Patient-reported Outcome Measures (PROMs)
Referring provider experience and satisfaction accessing the clinic	- Referring provider survey - Anecdotal feedback from committee meetings
Clinic wait time data	- EMR data
Primary care provider's change in understanding of urogynecological conditions and referrals	- Pre and post event survey

Table 1. Data collection methods.

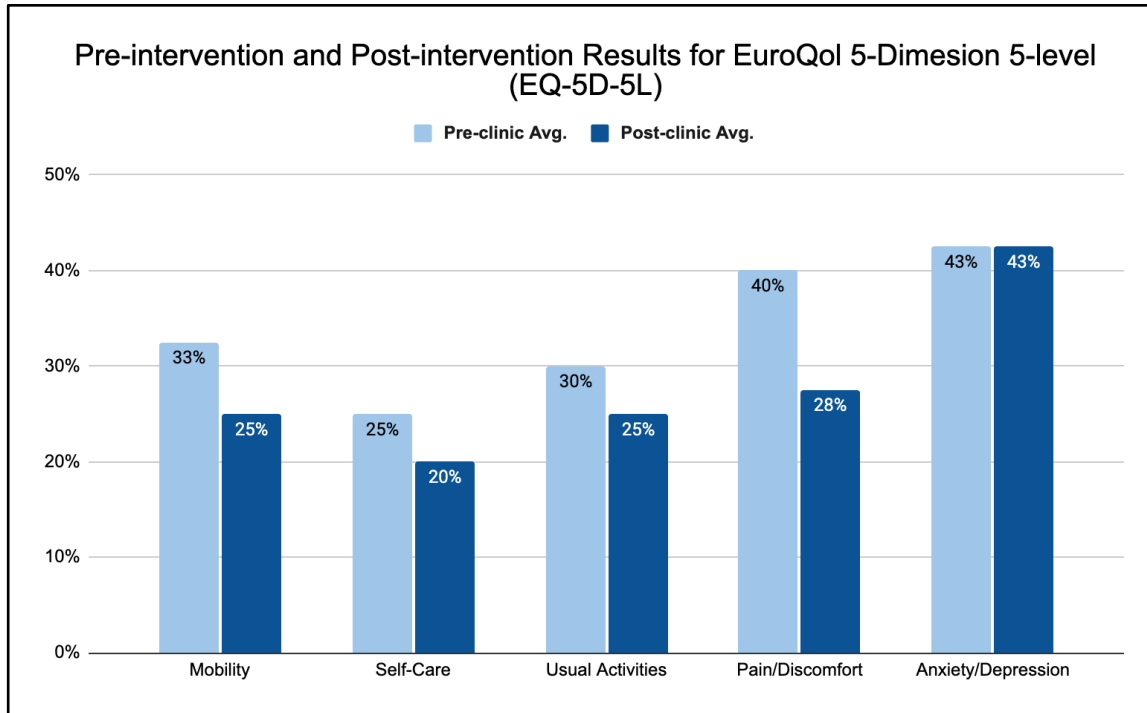


Figure 8. Pre-intervention and post-intervention results for EQ-5D-5L. A lower score means an improvement in symptoms.

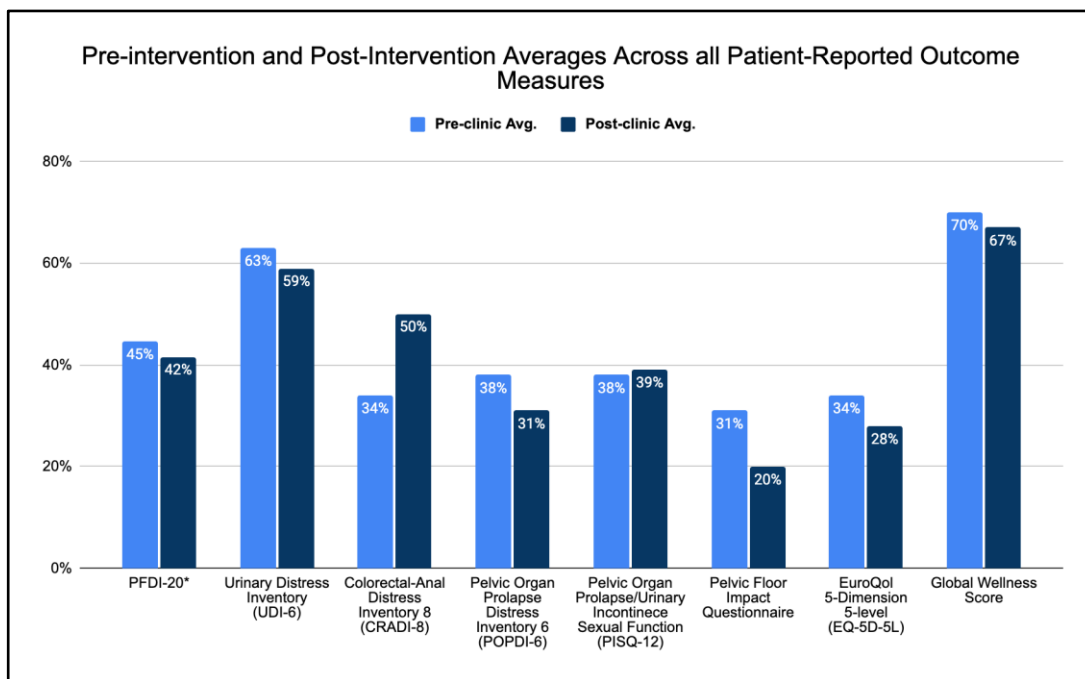


Figure 9. Pre-intervention and post-intervention averages across all patient-reported outcome measures. A lower score means an improvement in symptoms.



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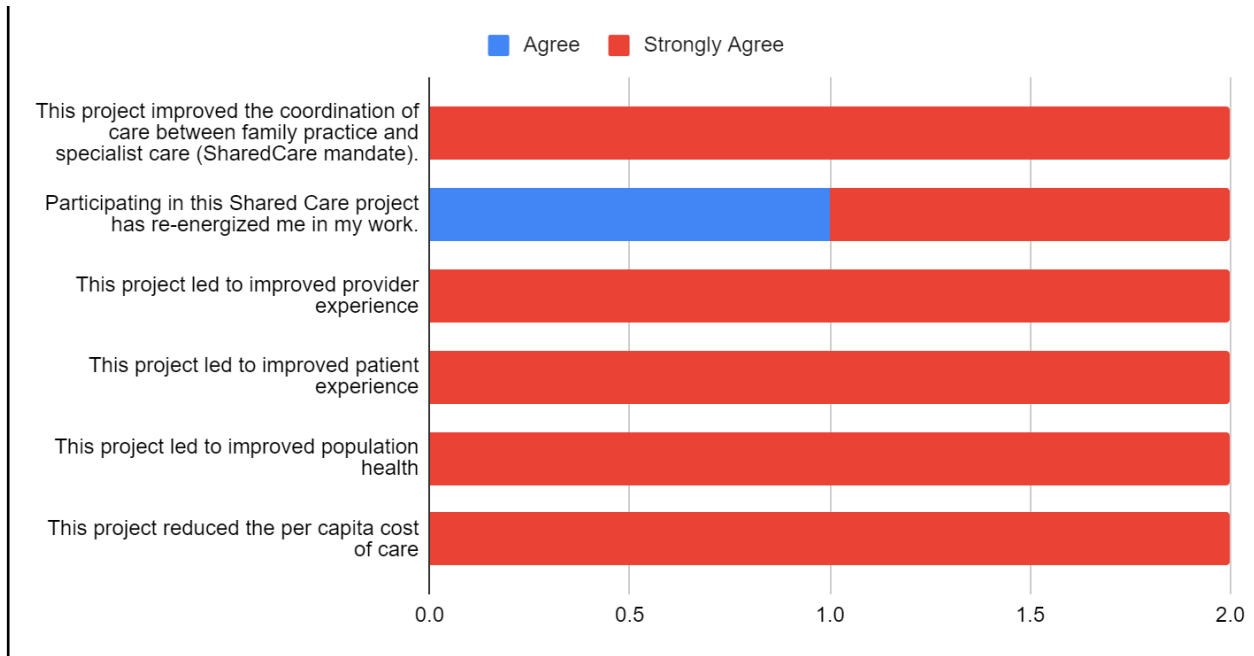


Figure 10. Physician Lead End of Project survey responses.



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