

Partnering with Patients to Improve Peritonitis Rates

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The London Health Sciences Centre (LHSC) Peritoneal Dialysis (PD) Program is an active PD program caring for approximately 120 patients. The program strives for optimal patient outcomes and, in doing so, regularly analyzes infection rates.

In 2003, the LHSC peritonitis infection rate was 1 episode in 56 patient-months (1:56). Peritonitis rates remained acceptable in 2004 (1:41) and 2005 (1:57). In 2006, the PD team became concerned when the peritonitis rate demonstrated a significant deterioration to 1:31, with a further decline to 1:27 in 2007. Because the latter rate is below the accepted Canadian benchmark of 1:30, the PD team needed to respond to the downward trend.

The principles of E. Wagner's chronic disease care model and P. McGowan's patient-provider partnerships theory were used to guide the development of an intervention plan. A significant improvement in the peritonitis rate was demonstrated in 2008.

Key words

PD failure rates, peritonitis, chronic illness, informed activated patient, partnerships with the health care team, collaborative partnerships, survey, knowledge deficits, patient perception of reason for peritonitis, frequent feedback on peritonitis rates, patients as partners

Introduction

The London Health Sciences Centre (LHSC) Regional Renal Program provides comprehensive care for patients with both progressive and end-stage renal disease. It serves a large geographic region with a population catchment of approximately 1 million. The LHSC is academically affiliated with the University of Western Ontario, providing the clinical setting for medical, nursing, and other health care students.

Patients and methods

The LHSC's peritoneal dialysis (PD) unit cares for approximately 120 PD patients, of whom 45 are

incident patients each year. The PD team regularly uses the Baxter Peritonitis, Organisms, Exit Sites and Tunnel Infections database to reviews its outcomes data so as to better understand the causes of PD failure rates. A common cause of PD failure is peritonitis, and failures at LHSC are no exception. The PD team strives to meet or exceed the most commonly accepted Canadian benchmark of 1 peritonitis incident in 30 months on therapy (1:30).

Figure 1 shows the annual peritonitis rates in the unit for 2001 – 2008. The poor rates in 2001 and 2002 were thought to be the result of a program merger of two units, each using different products. Peritonitis rates improved with a targeted continuous quality improvement initiative in 2003. However, results slid in 2006 and did not meet benchmark in 2007. An action plan was required to reverse this downward trend.

Self-administered PD therapy is used to treat a life-threatening chronic illness. According to E. Wagner at the MacColl Institute for Healthcare Innovation, several key success factors required to achieve excellent outcomes have been identified in the chronic care model (1). The LHSC change initiative focused on the development of an informed, activated patient through enhanced partnerships with the health care team.

To achieve an informed, activated patient (a good self-manager), healthy partnerships must be established with the practice team. Positive role changes are required on the parts both of the patient and of

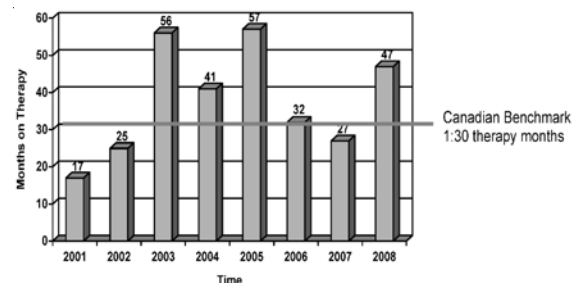


FIGURE 1 Annual peritonitis rates at the London Health Sciences Centre.

From: Peritoneal Dialysis Unit, Regional Renal Program, London Health Sciences Centre, London, Ontario, Canada.

the health care provider. The health care provider must migrate from the traditional role of selecting and conducting therapy to that of teaching, coaching, and partnering. To become a better self-manager, the patient must migrate from following orders to being truly responsible and accountable for daily management of his or her condition [McGowan P. 10 Years of chronic disease self-management: BC experience (Keynote address). Presented at Taking Charge of Our Health, Canadian Conference on Integrated Chronic Disease Self-management; October 23 – 24, 2008; Toronto, ON].

The required outcomes and successful role changes occur when team members and the patient develop collaborative partnerships. These key elements define collaborative partnerships: a recognition that the health care provider and the patient are both experts, provision for genuine two-way information exchange, provision for both partners to freely state preferences, and assurance that the partners can reach consensus on the treatment plan [McGowan P. 10 Years of chronic disease self-management: BC experience (Keynote address). Presented at Taking Charge of Our Health, Canadian Conference on Integrated Chronic Disease Self-management; October 23 – 24, 2008; Toronto, ON]. With these principles to work from, the team members redeveloped the peritonitis prevention teaching and maintenance program.

Because of considerable staff turnover, the team first reviewed its own practice, standardizing all teaching materials and developing new “attention-grabbing” posters and brochures for patients. Recognizing that the patient, as partner, cannot afford knowledge gaps, the team developed a 48-question survey to identify learning needs. They administered this survey when the patient completed training, at 6 weeks on therapy, and in the event of a peritonitis incident. The patient’s specific knowledge deficits were shared with the patient and re-education was based on these targeted learning needs. The staff members were careful to share that the survey was not to be thought of as a test, but to be used to identify the patient’s individual learning needs so that targeted education could be provided.

For patients who had developed a peritonitis incident, the results of the survey were reviewed with the patient as already discussed. The patient was then asked to review a form titled Patient Perception of Reason for Peritonitis (Appendix 1) and to provide

input as to the cause of the peritonitis. Once again, this form was not intended to test or scold the patient, but to recognize the patient as a full partner in care and to emphasize that the patient’s technique and opinions both matter. The team intends to administer the survey annually for maintenance patients.

The third document developed was a Flowchart for Peritonitis (Appendix 2). When a peritonitis incident occurred, the health care provider shared this flowchart and all the ensuing steps for treatment with the patient. The patient, in partnership with the staff, monitored each step of the process and became a better informed and more willing participant in the overall process of care.

The final change included a monthly calculation and review of the peritonitis rate. Previously, this rate had been tracked quarterly. Not only is this information shared with the members of the health care team, but it is now posted in the clinic waiting room for patient awareness.

Results

Most of the planning for this change occurred in the spring of 2007. Plans were tweaked in the fall of 2007, and full implementation occurred in January 2008. In 2007, the monthly peritonitis rate fell below the 1:30 benchmark in 8 of 12 months, with the annual rate being 1:27. After implementation of the changes described earlier, the peritonitis rate fell below benchmark in only 2 of 12 months in 2008, with the annual rate being 1:47. Application of the Wagner model and the McGowan principles in a tangible and practical manner resulted in improved clinical outcomes—that is, in a significant reduction in the peritonitis rate.

Conclusions

Implementation of the survey, patient perceptions of the reasons for peritonitis, use of the peritonitis flow chart, and frequent feedback on peritonitis rates enhanced the involvement of patients as partners in their health care. These changes resulted in significant improvements in the peritonitis rate. The changes all occurred within a small period of time, and so identifying any single strategy as the most effective is difficult. Informal feedback from the health care team suggests that, if time constraints are a factor, the questionnaire may be the most effective tool because of frequency of administration and the resulting ability to customize teaching to the patients’ learning needs.

Through many years of experience, the PD staff have learned that initial successes can slide unless vigilance is applied to constantly monitor, assess, and act as needed. The team will continue to ground their interventions using sound principles of chronic disease management, emphasizing respectful partnerships and recognizing the key role that patients must play in maintaining their health.

Acknowledgments

We thank Susan McMurray and Sandee Matthews of Baxter Corporation for facilitating discussions on the LHSC's change process and all other members of the PD team for their contributions, including Peter Cordy (nephrologist), Peter Blake (nephrologist), John Johnson (nephrologist), Deborah Bezaire (manager, peritoneal dialysis and chronic kidney disease clinics, inpatient nephrology), Karen Peters (manager, regional and home

dialysis units), Judith Szabo (registered nurse), Rita Baker (registered nurse), Darlene Wadsworth (registered nurse), Joanne Gullo (registered nurse), Joan Carter (registered nurse), Michelle Ivanouski (registered nurse), Neemera Jamani (registered nurse), Mary Racine (clerk), and Jill Dalke (clerk).

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Appendix 1



Checklist for Patient Perception of Peritonitis
 Complete when treating patient with peritonitis protocol

Patient Perception of Reason for Peritonitis			
What caused your peritonitis?			
Date:		RN:	
Answer:	Yes	No	Comments
Touch Contamination			
Mask			
Incorrect Procedure			
Adding Medications			
Opticap			
Pets			
Tubing Separation			
Unclean hands			
Drying hands with paper towel			
Pump soap			
Swimming			
Warming solution			
Other-State Patient Belief			
Don't Know			
Is there a medical condition that contributed to this peritonitis?			
Nurse Assessment			

Appendix 2



Flow Chart for Peritonitis

