Rita Willener, Clinical Nurse Specialist
Department of Urology, University Hospital Berne
Switzerland
rita.willener@insel.ch
phone: 0041 31 632 47 45

Authors:
Willener R., CNS, Department of Urology, University Hospital Berne, Switzerland
Spichiger E., RN, PhD, Head office of Nursing University Hospital Berne, Switzerland
Hantikainen V., RN, PhD, Head office of Nursing University Hospital Berne, Switzerland

Patients experience of postoperative incontinence and of information given by nursing staff following transurethral resection and holmium laser enucleation of the Prostate

Rita Willener, Clinical Nurse Specialist
Department of Urology, University Hospital Berne
Switzerland
rita.willener@insel.ch
phone: 0041 31 632 47 45

1. Introduction

The purpose of this study is:

- To gather baseline data about early incontinence rates in patients after transurethral resection of the prostate (TURP) or holmium laser enucleation of the prostate (HoLEP) following discharge from hospital
- To find out how patients have been supported and educated by nurses to deal with this important postoperative problem at home
- To provide the basis for developing an intervention program

The background and the motivation for the proposed study are based on initial evaluation of nursing interventions, regarding postoperative incontinence following urological prostate operations. This evaluation was based on a small sample size of 27 patients over 3 months. It showed that 50% of the interviewed patients reported urinary incontinence within the first week at home following TURP. It also showed that nurses are less aware of incontinence problems in patients following TURP in comparison to those who have undergone radical prostatectomy. There is limited information from present literature about early postoperative incontinence rates following TURP and how patients are supported and educated to deal with this problem once at home. Most published results were based on 3, 6 and 12 month postoperative follow-ups. There is few available data as yet about the first days at home following the operation.
When patients leave hospital they should be informed about urinary incontinence. The nurse's responsibility is to educate patients about how they could deal with this problem at home.

2. Objectives

All patients undergoing both TURP and HoLEP will be identified for the study and grouped separately according to their operation.
In this study, the following research questions will be answered:

- How many patients seen in our urological clinic (consecutive sample over a 6-month period) were discharged home dribbling urine after TURP or HoLEP?
- How do patients experience this postoperative incontinence after TURP or HoLEP during the first week after discharge from hospital at home?
- Were these patients given adequate information by nursing staff to deal with possible incontinence following their discharge?

3. Literature Review

Progressive enlargement of the prostate gland is extremely common and affects most men aged >70 years. The growth of the prostate gland can cause a gradual increase in lower urinary tract symptoms and a decrease in peak urinary flow rate (McNicholas & Mitchell, 2006).
Today there are two common treatments for benign prostatic hyperplasia (BPH): Transurethral resection of the prostate (TURP), using diathermy through a fine metal cutting loop and holmium laser enucleation of the prostate (HoLEP). Efficacy of both methods is proven in terms of symptom relief and removal of obstruction. TURP is still the "gold standard" treatment (Tan et al., 2007). However terminal dribbling and urinary urge incontinence are common postoperative symptoms following TURP and HoLEP. The guidelines of the American Urological Association for BPH-treatment contain the most comprehensive meta-analyses, indicating that urinary incontinence (3%) and irritative micturition problems (15%) are relevant complications after TURP (Reich et al., 2006). Regarding early postoperative incontinence, urge incontinence occurred in 38% (TURP) and 44% (HoLEP) of treated patients at a 1-month follow-up (Rigatti et al. 2006). Rassweiler et al. (2006), based on a review of publications from 1989 to 2005 stated that early incontinence may occur in up to 30–40% of patients. (Early incontinence was not defined in time). According to these authors,

early incontinence is usually urge symptomatic, either because of irritative symptoms such as fossa healing and associated urinary tract infection (UTI) or detrusor instability caused by long-lasting BPH.

4. Relevance to Urology Nursing

Postoperative urinary incontinence following prostate operation usually is associated with radical prostatectomy and not with TURP. In our department, there is a specialised nurse who deals with and supports all patients following radical prostatectomy in terms of teaching pelvic floor muscle exercises and educating them in the use of incontinence pads. Because risk of incontinence is much lower after TURP we do not offer this service for patients following TURP or HoLEP. Generally, non-specialist staff nurses care for these men following their operation.

During an internal evaluation, we interviewed patients with radical prostatectomy and TURP within one week from hospital discharge by telephone. All patients during a 3-month period (November 06 to end of January 07) were included. The aim was to find out if patients felt adequately educated and supported by nurses about incontinence problems. We were also interested in identifying if there were different approaches to nursing care by the specialist nurse and general nurses. The results showed that the majority of patients (9 of 11) following radical prostatectomy suffered urinary incontinence. But all felt adequately supported and educated about incontinence problems and were very satisfied. In the TURP group there was still 50% of the patients (8 of 16) dribbling urine, but only 3 of them had been informed about using incontinence pads. 4 of the 5 non-informed patients would have preferred getting this information before going home.

Although it is well-known in clinical practice, that patients could be incontinent for a period after TURP and HoLEP, there is still limited available data about early incontinence rates in these patients following discharge from hospital. This is probably due to the fact that outcome variables of medical and surgical treatments are usually long-term evaluations. In addition, there are no studies with regard to how patients may be supported and educated by nurses to deal with this important postoperative problem at home. For nurses, to develop an adequate educational intervention and then support patients and empower them in addressing potential early postoperative urinary incontinence at home, it is very important to first gather information on the problem's prevalence and second to learn from patients' experiences and explore their needs.

5. Methodology

This study will use a mixed methods approach, thus it combines a descriptive design to assess the prevalence and experiences of early postoperative incontinence and a qualitative content analysis to explore more deeply experiences of patients suffering from early incontinence. The method of the qualitative sub-study is described separately at the end of this section.

5.1. Sample and setting

Patients will be recruited at the Department of Urology, University Hospital Berne, Switzerland. In the clinic, approximately 180 patients undergo TURP or HoLEP annually.
For this study, all men admitted to TURP or HoLEP over 6 months (July to December 2008) will be considered for study participation. A sample of 59 men will be needed. The sample size was estimated based on literature (Rassweiler et al. 2006, Rigatti et al. 2006) that reported 30-44% of incontinence and the internal evaluation (50%, n=16) of incontinence. An expected proportion of 40% and a total width of the confidence interval of 0.25 with a confidence level of 95% was fixed (Hulley et al, 2001). Patients will be included if they understand and speak German and give verbal informed consent. Cognitively impaired patients and those without telephone will be excluded.

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5.2. Study procedures

Eligible patients will be contacted by telephone one week post discharge following TURP or HoLEP. They will be informed about the study and their rights. With the patients who agree to participate, a structured interview will be performed. The same nurse of the clinic will -make all telephone calls.

5.3. Structured interviews

Interview questions developed by the author that were used in the initial evaluation were well-understood by participants and all interviews worked well. Therefore the same questions will be used in this proposed study. These questions are stated below.

- Are you dribbling urine? *Yes/no*
- In what situations do you have dribbling of urine?
- Do you wear incontinence pads? *Yes/no*
- What kind of incontinence pads do you wear (product)?
- Are the pads you use appropriate? *Yes/no*
- Did you get information about urinary incontinence and wearing pads from the nurse? Yes/no
- If yes: How much did the information help you? *Not at all / a little / sufficient / a lot*
- If no: Would you have liked this information? *Yes/no*
- Do you feel limited in your daily life? *Yes/no*
- If yes: How much do you feel limited? *slightly / moderately / severely*

5.4. Data analyses

- Quantitative data from structured telephone interviews will be analysed by using descriptive statistics (frequencies and percentages, means, medians, confidence intervals).

5.5. Ethical considerations

- Approval of the Cantonal ethics committee will be obtained
- Patients will experience no risk and no harm
- The structured interview may result in a benefit for patients (the initial project showed that the interview nurse could give advice to patients who needed it)

5.6. Qualitative sub-study

A sample of 20 patients who have urine dribbling up to the time of the structured interview for quantitative data collection, will be asked by means of a telephone interview about their understanding and experience of incontinence at home during every day life, using open-ended questions. At the end of the structured interview, incontinent patients will be asked if they would be willing to tell the nurse more about their experiences later. The patients who agree and are chosen for an interview will get written information about this second part of the study. Patients, who are still ready to participate, will send back the signed consent form. The nurse will contact these patients again approximately one month post discharge and perform the interview. Interviews will be tape-recorded, transcribed verbatim and analysed using qualitative content analyses as described by Morse & Field (1998).

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6. Feasibility

6.1. Time table 2008-2009

	2008									2009				
	April	Mai	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	Mai
Approval of ethics committee														
Data collection Patient interviews														
Data analyses Results Conclusions														
Dissemination of results: team and publication presentation														
Start development of intervention program										x				

6.2. Budget

Estimated costs needed for present study

Human resources for data-analysis	**hours**	**Costs CHF**	**Costs €**
Ethics committee		500	300
Data collection	40 h /a 27,50 CHF	1'100	660
Preparation of quantitative data for analyses and statistical support	40 h /a 27,50 CHF	1'100	660
Qualitative data of 20 interviews: transcriptions and analyses	80 h / a 27,50 CHF	2'200	1320
Dissemination of results: Publications	25 h a 27,50 CHF	687	412
Total costs in €			**3352**

7. Conclusions

Results of this study will give an insight into a very common but poorly explored postoperative problem: incontinence in the first four weeks following TURP or HoLEP. Maybe because it is known that this problem is usually temporary, there has been little attempt at addressing the issue. Nevertheless patients facing even temporary incontinence may be limited when resuming their daily life. Incontinence can lead to embarrassing situations (e.g. episodes of wet clothes, malodour). Subsequently, people may withdraw and not dare to go outside. Thus, nurses need to educate patients before discharge so that the latter are prepared to adequately deal with a potential incontinence at home.

The results of this study will:
- Show frequency of incontinence in the first week after TURP or HoLEP
- Give insight in patients' experiences
- Allow to develop an adequate nursing intervention program

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