

East African Medical Journal Vol. 96 No. 1 January 2019

## A TEACHING PROTOCOL ON PROSTATISM TO EMPOWER PATIENTS FOR BETTER UROLOGICAL HEALTH

Pius Musau, MBChB, MMed (Surg), MSc (Urol); PhD candidate, Moi University, School of Medicine, P.O. Box 4606-30100, Eldoret-Kenya, Simon Kang'ethe, PhD; Professor, Department of Medical Education, School of Medicine, Moi University, P.O. Box 4606-30100, Eldoret, Kenya, Ashraf Emarah, MD; Lecturer Department of Surgery, School of Medicine, Moi University, P.O. Box 4606-30100, Eldoret, Kenya.

Corresponding author: Dr. Pius Musau, Moi University, School of Medicine, P.O. Box 4606-30100, Eldoret-Kenya. Email, musau\_pius@yahoo.com

## A TEACHING PROTOCOL ON PROSTATISM TO EMPOWER PATIENTS FOR BETTER UROLOGICAL HEALTH

P. Musau, S. Kang'ethe and A. Emarah

### ABSTRACT

**Background:** There is limited understanding of the prostate and its disorders among the aging males who suffer the condition. Healthcare workers are also not adequately trained to teach patients on prostatism. This paper presents a teaching protocol on prostatism based on patient educational and health seeking behaviour. A pilot study yielded good outcomes on understanding the prostate and its disorders.

**Objective:** To develop and pretest a teaching protocol on prostatism

**Design:** An interventional approach following a cross-sectional study on patient educational and health seeking behaviour.

**Setting:** The Urology Clinic of Moi Teaching and Referral Hospital, Eldoret-Kenya.

**Subjects:** One hundred and twenty-six consenting men aged 50 years and above presenting with prostatism.

**Results:** Forty-six percent of the patients had no formal education and 55.9% of those who went to school had less than or equal to 7 years of primary education. A quarter of the patients (25.4%) were aware of the prostate and its disorders. There was co-morbidity and complication rates of 23.8% and 7.1% respectively. Those taught using the protocol had varied levels of understanding that improved with higher levels of formal education. All the patients, irrespective of education level, considered themselves empowered by the teaching to lead better life.

**Conclusion:** This Teaching Protocol on Prostatism can educate patients with prostatism to understand the prostate, its disorders and basis for symptoms as well as empowering them to have better urological health.

## INTRODUCTION

A teaching protocol is a step-by-step guideline that educators use to structure professional conversations or learning experiences (1). There is no known formal teaching protocol on prostatism across the world yet appropriate information at the right time would empower patients and enable early presentations, timely referrals, effective management and better outcomes of interventions. Patients lack knowledge on urological problems, including their associations with lifestyle (2) and health care workers are not trained in teaching patients (3, 4). A culturally sensitive, low-literacy educational material can improve patient awareness of prostate disorders and improve the frequency of diagnosis and treatment of the ensuing ailments (5).

This study utilized patient education level and its relationship to health status at presentation to formulate a clinically oriented teaching protocol aimed at empowering men with prostatism so as to improve on their health seeking behaviour and prevent complications.

## MATERIAL AND METHODS

A two-year census study on patients presenting for the first time to the Urology Clinic of Moi Teaching and Referral Hospital, Eldoret, Kenya was conducted. A purposive sampling was used on those who consented to participate, and data collected using an interviewer administered questionnaire was coded and transcribed into a spread sheet. It was then entered into a computer and analyzed using Statistical Package for Social Sciences (SPSS) version 20.0. Discrete data was summarized using

frequencies, proportions, ratios and percentages while continuous data was by mean and standard deviations. Statistical significance was at an alpha of  $\leq 0.05$ .

Based on the study findings, a clinically oriented teaching protocol on prostatism was developed. A pilot study on the protocol revealed a good understanding of the prostate and its disorders, complications that arise and available mode of treatment by patients taught using it.

## RESULTS

One hundred and twenty-six patients were recruited into the study. Their ages ranged from 51 to 88 years with mean  $\pm$  Standard Deviation of  $67.1 \pm 9.7$  years. Forty-six percent of the patients had no formal education and 55.9% of those who went to school had  $\leq 7$  years of primary education. A quarter of the patients (25.4%) were aware of the prostate and its disorders. Formal education was found to be positively correlated to awareness on prostate disorders and screening for them ( $p < 0.001$ ).

At the time of presentation, the urinary symptoms were 53.2% obstructive, 9.5% irritative and 37.3% a combination of the two. The duration of symptoms ranged from one month to four years with more than a half (50.8%) of the patients having had symptoms for more than one year. Obstructive symptoms were commoner in those older than 60 years while irritative ones were mainly in the younger patients.

There was co-morbidity and complication rates of 23.8% and 7.1% respectively. Higher levels of education resulted in earlier presentation to hospital and fewer adverse events. Those with college level education had no co-morbidities, complications or

history of past admission to hospital. The mode of treatment was nearly three quarters (74.6%) surgical and the rest was medical interventions. The teaching protocol is founded on the following:

- An aging population with no or low levels of formal education.
- Limited patient understanding of the prostate and its disorders.
- A tendency to delayed presentation to hospital with resultant advanced disease and complications.
- Evidence of health benefits to the informed as exemplified by better

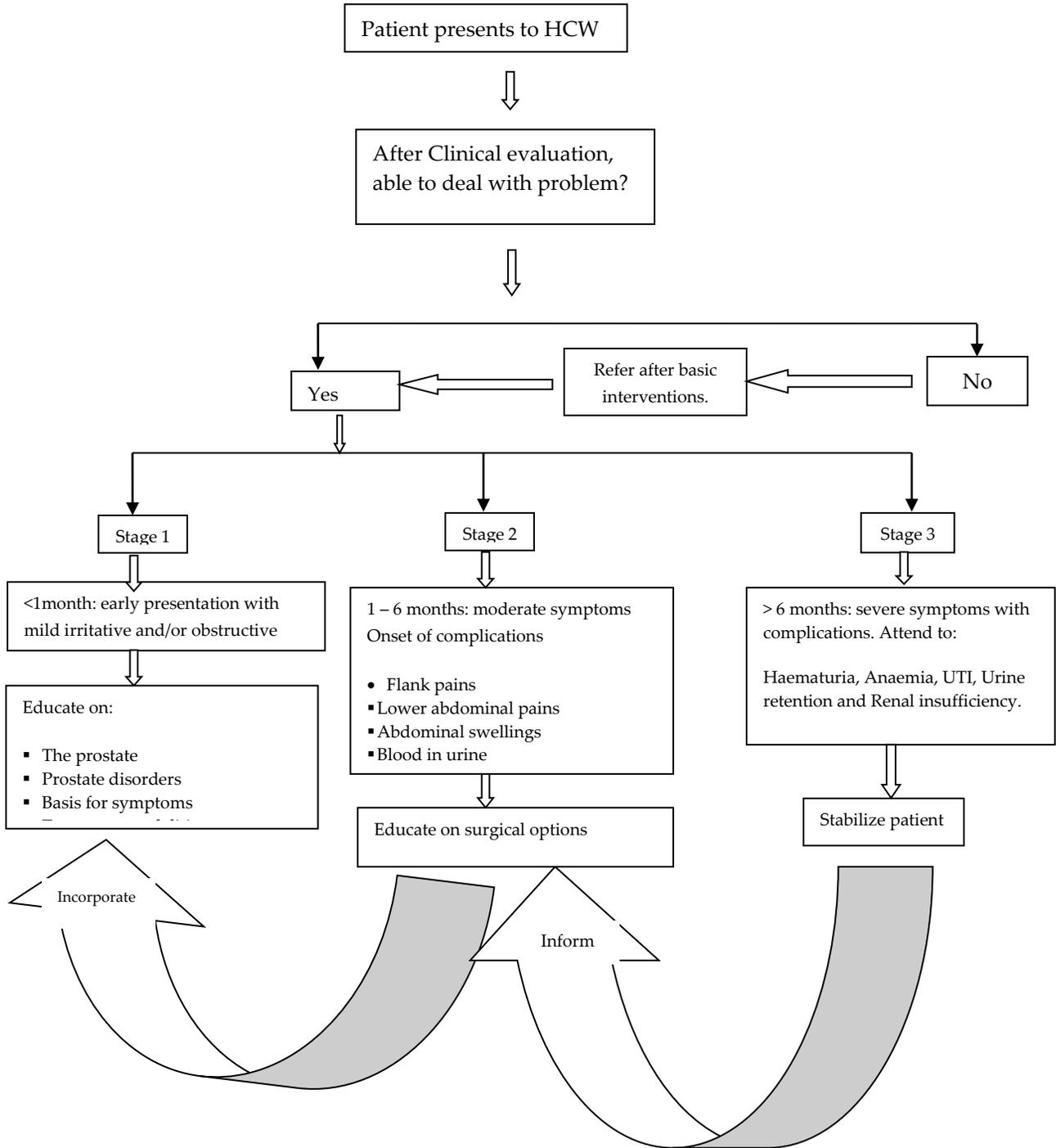
health among those with higher education level.

- The role of the health worker as a teacher on matters health.

On the basis of how men with prostatism present, three categories were formulated and identified as stages one to three. It is expected that the health care workers will utilize this protocol to appropriately empower the patient with prostatism according to the adjudged stages in the disease process.

Figure 1 shows the schema of the Clinically Oriented Protocol on Prostatism.

**Figure 1: Schema for the Clinically Oriented Protocol on Prostatism (COPP)**



*Stage 1:* This is when patients present early with symptoms lasting less than one month. After clinical and laboratory as well as imaging investigations confirm a diagnosis of prostatism, the patient is to be informed about his problem and the basis of the symptoms. In a language he can readily understand, a conducive environment and after confirming willingness to be informed, the patient is taught on the prostate, its disorders, symptoms, complications and treatment available. The information can be abridged based on time availability as well as the most essential information required to involve the patient in the care of his problem. The core information must be the prostate as a gland, its relationship to the urinary tract, the growth in the aging male and the subsequent manifestation as lower urinary tract obstructive and irritative symptoms.

*Stage 2:* The patient is presenting with 1-6-month history of symptoms that may or may not have progressed to complications. It is

also the patient who might have worsened under watchful waiting or not responding adequately to medical care. This is the patient who will be expecting tangible intervention to address his problem and will thus be informed about the varied surgical treatment after incorporating the relevant information from stage 1.

*Stage 3:* This is when the patient has had more than 6 months of symptoms and/or exhibits features of complications due to the prostatic problem. The primary objective at this stage is to stabilize the patient by addressing the complications at hand. Once stabilized, the patient is to be informed about the teaching components of stage 2 that will in due course incorporate the stage 1 teaching. The aim of the protocol is to convert the stage 3 patient to stage 2 and intervene after he is fully aware of the prostate gland and its role in the complications he presented with.

Table 1 below shows the teaching guide for the protocol.

**Table 1**

*The guide to Clinically Oriented Protocol on Prostatism*

Step	Basic understanding on prostatism	Advanced understanding
1. Preliminaries	Introduction and climate setting. Let the patient understand his urological problem. Explain why he needs to understand his problem for greater participation in his care. Highlight the benefits of an enlightened patient including early diagnosis, avoidance of complications and effective treatment.	
2. The lessons	<ul style="list-style-type: none"> <li>i) The prostate as a gland in the genitourinary tract in close proximity to the bladder neck.</li> <li>ii) The common disorders of the prostate such as BPH, Prostate cancer and prostatitis.</li> <li>iii) Complications of prostatism that may affect the urinary tract and the resultant systemic signs and</li> </ul>	<ul style="list-style-type: none"> <li>i) The role of the gland in reproduction.</li> <li>ii) Benign Prostatic Hyperplasia (BPH), Prostate cancer and Prostatitis.</li> <li>iii) The effect of disordered urination on the urinary tract leading to stasis,</li> </ul>

	symptoms	UTIs, urinary retention, renal failure and systemic manifestations.
3. Applied teaching	Understanding the reason for obstruction in prostatism. The basis for irritative symptoms due to bladder instability and obstructive symptoms due to mechanical blockage of urinary outflow. The patient's experiences in the symptoms of prostatism can help in understanding.	
4. Treatment	Watchful waiting, medical and surgical modes of treatment and when to use what method of intervention.	The concept of progression in the decision-making from the least to the most invasive methods.
5. Take home message	Question and answer session, clarifications and an understanding that the prostate in the aging man undergoes growth that can cause urinary problems that need early interventions to pre-empt complications and improve on patient health.	

Depending on the patient's level of understanding, the guide can provide the advanced version of the teaching protocol that will go beyond the basics that everybody else needs to know. This should be on request or as a way of addressing a particular question. The amount of information will also vary between varied cadres of health care workers and whether or not the doctor involved is a specialist in urology, the ultimate person to handle men with prostatism.

The protocol was then piloted using 30 men presenting with prostatism to the hospital in which the study was conducted. The scoring was by use of a Likert scale graded 1-4 and patients were asked to rate their competencies as 1= Poor (Did not understand the lesson), 2= Satisfactory (Understood what taught but remained as information), 3 = Good (Could relay the lesson to others) and 4= Excellent (Capable of teaching others).

**Table 2**

Patient competencies after being taught using Clinically Oriented Protocol on Prostatism

Topic of education	Level of competence		
	Satisfactory	Good	Excellent
The prostate	18	6	6
Prostate disorders	4	20	6
Basis of symptoms	1	24	5

Conceptualising the prostate in its anatomical position was the biggest challenge. The understanding improved with exposure to higher level of education with 61.9% of those in the satisfactory group having either no formal education or less than 7 years of learning while 55.6% of those with good to excellent understanding had secondary education.

Understanding prostate disorders was easier with only 13.3% in the satisfactory category. Nearly all the patients taught understood the basis for the symptoms to the point of either relaying them or teaching others.

The teaching required a sketch outlining the significant anatomical position of the prostate in relation to the bladder outlet, how a disorder distorts the urethral calibre thus

interfering with urinary flow and how this forms the basis for the symptoms experienced by the patient. A model or an animation depicting the same could also help as an instructional medium. All the patients, regardless of education level, felt that they were empowered through the protocol to be able to understand the prostate and its disorders. They were confident of taking better care of their health after the teaching.

## DISCUSSION

The world prevalence of prostatism is estimated to be 6% yet management of prostate disorders remains a problem even to health professionals (3). There is limited understanding of the prostate and its disorders among patients the world over and this has remained over the years. This study established that only 25% of the respondents were aware of the prostate and its disorders and the higher the level of education, the better the understanding and health seeking behaviour. Apolone and others (6) in an Italian community-based survey concluded that Italian males had a poor knowledge and perception of prostate-related conditions and did not adequately care about them and, thus, did not seek medical attention. Haluk et al (7) showed that prostate awareness was unsatisfactory in the Turkish male population, that knowledge lacked throughout all education levels and that urologists needed to better inform the general population. Dutkiewicz and Jędrzejewska (8) observed an almost complete lack of knowledge about prostate disorders among patients and that the education process influenced the level of knowledge and interest in the care of prostate disorders. Lack of awareness about prostate-related conditions was also identified as a cause of low survival and higher mortality

rates due to late presentation and attendant complications among the patients.

On the other hand, health care workers are not trained in either teaching or involving patients in decision making to resolve their problems. Jacob (9) found out that physicians exchange minimal information with patients during consultation while Schaede et al (4) in their study on Shared Decision Making found that physicians seem to underestimate by up to 29% the patients' desire to be involved in decision making concerning care. A teaching protocol will go a long way in getting these health workers convey essential information that would help the patients better their health.

This protocol is, thus, premised on the general understanding that health care workers are not adequately trained to teach on matters health (10, 11) yet they remain the favourite source of health information (12,13); understanding the prostate and its disorders remain a challenge even to the health professionals; there is limited understanding of prostatism among patients the world over that precipitates unnecessary delays and attendant complications; and that an empowered patient is capable of taking control of his health with resultant benefits in terms of disease states, complications and morbidity. The teaching targets adult learners and the maxims most applicable will include progression from known to the unknown, simple to complex and concrete to abstract (14).

For a protocol to be successful, it should be a simple document that outlines the key information that is to be relayed with a clear objective or objectives that are to be achieved through the process of teaching (15). Appropriate information at the right time would empower these patients to effectively handle their prostate related problems and

enable early presentations, appropriate referral, effective management and better outcomes of interventions.

The protocol yielded good teaching outcomes in understanding the prostate, its disorders, basis of symptoms and a sense of empowerment of the patient to take better care of his condition. This is in keeping with the findings of Nilsson and others (5) that development of culturally sensitive, low-literacy educational materials can improve patient awareness of prostate disorders and improve the frequency of diagnosis and treatment of prostatism. It can, with necessary adjustments, form part of educational curricula in medical teaching institutions as well as Standard Operating Procedures (SOPs) in health institutions. In keeping with the modern trend in advancing technology and individual rights to privacy and information, an electronic version can be availed as an application to those with the technological knowhow to enlighten themselves on prostatism.

The ultimate goal of any teaching protocol is to empower the learner with new information that not only brings knowledge but also alters attitude and behaviour while enhancing life skills and experiences (16). This particular one will teach prostatism to people of varied educational and experience levels to ultimately know about the prostate, its disorders, the symptoms and their basis as well as the need for interventions to pre-empt complications. The combination of ignorant patients and health care workers ill equipped to enlighten them will be adequately sorted out by use of this protocol and through it empower the patients enjoy a fruitful and healthy urological life.

## CONCLUSION

This Clinically Oriented Teaching Protocol on Prostatism can educate patients with prostatism to understand the prostate, its disorders and basis for symptoms as well as empowering them in health seeking behaviour.

## RECOMMENDATION

It is recommended that this protocol be used as a teaching guide for prostatism in health facilities. It can also be modified to fit into various health curricula and standard operating procedures in major health facilities.

## REFERENCES

1. Hill-Kayser CF, Vahain C, Hampshire MK, Jacobs LA , & Metz JM .An internet tool for creation of cancer survivorship care plans for survivors and health care providers: Design, implementation,use and user satisfaction. *Journal of Medical Internet Research*. 2009;10: 239-42.
2. Souaid T, Hindy JR, Eid R , Kourie HR , & Kattan J. Bladder cancer knowledge in the Lebanese population: When ignorance could be harmful. *Bulletin of Cancer*. 2018;30236-44.
3. Mofolo N, Betshu O, Kenna O, Koroma S, LebekoT, Claassen FM et al . Knowledge of prostate cancer among males attending a urology clinic, a South African study Published online 2015 Feb10 doi: 10.1186/s40064-015-0824-y
4. Schaeede U, Malilich J, NakayamaM, Kabayashi H, Takahashi Y, Saito K et al Shared decision making in patients with prostate cancer in japan:Patient preferences versus physician perceptions. *Journal of Global Oncology*. 2018;12: 1-9.
5. Nilsson, A. E., Schumacher, M. C., Johansson, E., Carlsson, S., Stranne, J., Nyberg, T., et al Age at surgery, educational level and long-term urinary incontinence after radical

- prostatectomy. *BJU International* 2011; 108: 1572–1577.
6. Apolone G, Cattaneo A, Colombo P, La Vecchia C, Cavazzuti L, and Bamfi F. Knowledge and opinion on prostate and prevalence of self-reported BPH and prostate-related events. A cross-sectional survey in Italy *Eur J Cancer Prev.* 2002;11(5):473-9.
  7. Haluk K, Murat A, Özcan K, Murat, G Mustafa, K and Serdar, G . Prostate myths: What is the prostate awareness in the general male population in Turkey? *Turk J Urol.* 2014 ; 40(3): 150–155.
  8. Dutkiewicz S and Jędrzejewska S. Education concerning carcinoma of prostate and its early detection. *Cent European J Urol.* 2011; 64(1):15-20.
  9. Jacob J. Consumer access to health care information: Its effect on physician-patient relationship. *Alaska medicine* , 2002;6: 75-82.
  10. Royak R, Passmore SR, Galala S, Hoy MK, Zhan M, Tkaczuk K... & Hutchison AP. Exploring patient-physician communication in breast cancer care for African American women following primary treatment. *Oncology Nurses Forum.* 2008;4: 836-43.
  11. Bart JH, Brent WM, & Karl TI. W. Identifying public health competencies relevant to family medicine. *American journal of preventive medicine.* 2011; S251-55.
  12. Hesse BW, Nelson DE, Kreps GL, Croyle RT, Arora NK, Rimer BK, et al . Trust and sources of health information: the impact of the Internet and its implications for health care providers: findings from the first Health Information National Trends Survey. *Arch Intern Med.* 2005; 165(22):2618-24.
  13. Mills, MC, & Davidson R. Cancer patients' sources of information: Use and quality issues. *Psychooncology*, (2015; 6: 371-8
  14. Rajev K.. Application of maxims of teaching in teacher education programme with special reference to Indian teacher scenario. *Scholarly Research Journal for Interdisciplinary Studies*, 2017;3: 177-81.
  15. Pembe AB, Mbekenga CK, Olson P, & Darj E. C.. Why do women not adhere to advice on maternal referral in rural Tanzania? Narratives of women and their family members. *Global Health Action*, 2017: 1364-88.
  16. Walton GM, & Cohen GL. A question of belonging: Race, social fit and achievement. *Journal of personality and social psychology.* 2014;4: 82-96.