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Original Article

Reasons for cancellations of urologic day care surgery

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Abstract

Objective: The numerous economic and social benefits associated with the practice of day care surgery could be eroded by frequent cancellations. We therefore determined the reasons for such cancellations in a tertiary care centre in Nigeria.
Patients and Methods: This was a prospective study of all consecutive urologic day cases seen at Jos University Teaching hospital, Nigeria from January 2003 to December 2004.
Results: A total of 270 patients were seen during the study period with ages from 2 weeks to 100 years (median 55 years) and male to female ratio of 14:1. The procedures carried out were mainly urethroscopy /urethrocystoscopy in 103 (38.2%) patients, visual internal urethrotomy in 48 (17.8%) and trucut prostatic biopsy in 33 (12.2%) patients. Sixteen (5.9%), 16(5.9%), 9(3.3%) and 8(3.0%) patients had examination under anaesthesia / bladder biopsy for suspected bladder carcinoma, urethral dilatation, testicular biopsy and total orchidectomy for carcinoma of the prostate respectively.
There was a cancellation rate of 15.6% (n=42) mainly due to the inability of the patients to come (24 patients, 57.1%), inadequate materials in the theatre (9 patients, 21.4%), power failure (4 patients, 9.5%), strike action (3 patients, 7.1%) and financial difficulties (2 patients, 4.8%).
Conclusion: We are still faced with a high cancellation rate of urologic day cases and these are mainly due to avoidable reasons. Patient as well as physician education and provision of adequate materials and infrastructural development are recommended to reduce these; so as to gain maximally from urologic day surgery practice.
Key Words: urologic, Day surgery, cancellation

Introduction

Day care surgery refers to a surgical procedure performed in an out patient setting. The earliest fully documented experience was by Nicoll, a Glasgow pediatric surgeon who operated on over seven thousand children as day cases at the Royal Hospital for Sick Children between 1900 and 1908[1]. The practice of day surgery has since gained widespread acceptance, especially in the past two to three decades[2] and has been embraced in urology [1], ophthalmology, ear nose and throat surgery, general surgery, hand surgery and plastic surgery[1, 3, 4]. This trend is related to the numerous economic and social benefits attributable to the practice which include reduction in costs [1, 5, 6], reduction of waiting list for routine surgery, improved quality of care[1] and low community support reguirements[5]. The practice has also been found to be highly acceptable and tolerable[7] and additionally allows women who contribute greatly to family economics have more time to attend to economic activities and family duties. A previous study in this centre(Jos University Teaching Hospital, Jos Nigeria) [8] of all surgical patients identified cancellation of cases as a major challenge with a cancellation rate of 36%, higher than rates of 19.3% and 10% in Lagos, Nigeria[9] and Quebec[10] respectively, though these latter two studies were in children. Cancellation of urologic day cases has also been identified as a major challenge to the urologist practicing in a developing community[11]. Frequent cancellation of day cases will tend to erode the numerous benefits of this practice. We therefore determined the reasons for cancellations in all our urologic day care patients with a view to improving the practice and subsequently derive maximum benefit.

Methodology

***Study area*:** This prospective study was carried out for two years (January 2003 - December 2004) at the Urology unit of the Department of Surgery, Jos University Teaching Hospital. This hospital is a

tertiary health institution located in the middle belt region of Nigeria.

Method: Patients of all ages and sexes were clinically evaluated at the out patient department. Basic investigations included the haematocrit determination and urinalysis, especially for sugar and protein. Other investigations performed depended on the diagnosis. Excluded from day surgery were those who had haematocrit of less than 30% or had severe concomitant medical illness necessitating in-patient care. Procedures were carried out under sedation using intravenous diazepam and pethidine or pentazocine and local anaesthesia was by intraurethral instillation of 8 to 10 mls of 1% or 2% lignocaine. All 270 patients who qualified for day surgery were enrolled.

***Outcome indices*:** Data obtained were information regarding personal data, diagnosis, procedure performed, anaesthesia and reasons for cancellations.

Statistical analysis: The data was subsequently analysed using Epi-info 2004 version 3.2.2 to obtain percentages, means and median.

Results

Our main interest was to determine reasons for cancellation of urologic day cases. A total of 270 patients were seen during the study period with ages between 2 weeks and100 years (median 55 years) and a male to female ratio of 14:1. Patients aged 41 to 60 years formed 32.5% of the study population (Fig. I). The procedures carried out were mainly urethroscopy /urethrocystoscopy in 103 (38.2%) patients, visual internal urethrotomy in 48 (17.8%) and trucut prostatic biopsy in 33 (12.2%) patients. Sixteen (5.9%), 16(5.9%), 9(3.3%) and 8(3.0%) patients had examination under anaesthesia / bladder biopsy for suspected bladder carcinoma, urethral dilatation, testicular biopsy and total orchidectomy for carcinoma of the prostate respectively (Table I).

There was a cancellation rate of 15.6% (n=42) mainly due to the inability of the patients to come (24 patients, 57.1%), inadequate materials in the theatre (9 patients, 21.4%), power failure (4 patients, 9.5%), strike action (3 patients, 7.1%) and financial difficulties (2 patients, 4.8%) (Table 2).

Table I. Day-Care Procedures Performed in 270 Patients

Procedure	No of Pts	%
Urethrocystoscopy	103	38.2%
Visual internal urethrotomy	48	17.8%
Prostatic biopsy	33	12.2%
EUA*/bladder biopsy	16	5.9%
Urethral dilatation	16	5.9%
Testicular biopsy	9	3.3%
Bilateral total orchidectomy	8	3.0%
Others	37	13.7%
Total	270	100%

*EUA, Examination under anaesthesia;

Table 2: Reasons for Cancellation of Urologic Day-Care Surgery

Reason	No of Pts	%
Absence of patient	24	57.1%
Inadequate material	9	21.4%
Power failure	4	9.5%
Strike action	3	7.1%
Financial problems	2	4.8%
Total	42	100

Discussion

The aim of this study was to determine reasons for cancellation of urologic day cases. Our results showed that patient absence is the main reason (57.7%).Our overall cancellation rate of 15.9% is much lower than the cancellations found amongst patients in two previous studies in Nigeria; with rates of 36%[8], 19.3%[9] in Jos and Lagos respectively, though the Lagos study was in the pediatric age group. The rate in this study may be lower than the previous study in this centre because surgeon related factors such as duty conflicts or absence due to other official engagements, one of the reasons in the previous study was not a reason for cancellation in this study due to improved staff complement. A study in Quebec[10], however, found a lower cancellation rate of 10%. A high cancellation rate has the potential to erode the gains of day surgery due to waste of resources. It is therefore recommended that all necessary steps should be taken to reduce cancellations.The major reason for cancellation in our study was due to the patients' inability to come for surgery (57.7%), similar to a previous study in Jos[8] where this same factor accounted for 62.7%. Patient related factors were also the major reasons (62%) for cancellation in Lagos[9]. We could not determine the reasons for our patients not coming but this may be related to inadequate information and counseling or may be due to financial difficulties. Home visits by community nurses could assist in determining such reasons and have in fact been found to reduce cancellation rates by 75%[12]. While this may be ideal, it may be difficult to implement in many developing countries due to stretched manpower and transport difficulties as these patients may live in difficult terrains that may not be easily accessible. It is therefore imperative to adequately counsel patients on the diagnosis,

treatment modalities and prognosis especially if the disease is advanced or untreated. Effective telephone services would also ensure adequate communication with patients so that cases could be rescheduled appropriately. Such services have been utilized pre-operatively in the USA to reduce day surgery cancellation as reported by Kleinfeld[13].Nine (21.4%) patients were cancelled due to inadequate materials required in the theatre. This problem is preventable with adequate planning. It should be confirmed that materials in theatre are adequate before scheduling patients for surgery, and alternative arrangements should be made when feasible. Theatre lists should be made manageable and realistic. Laundry and sterilization services should similarly be organized such that materials are available when required, to avoid cancellation due to exhausted materials. Four patients were cancelled due to power outage. This is a recurring situation in many developing countries and we will continue to face this problem until the situation improves. In the interim, hospitals should have sufficient power backup. Industrial harmony should be encouraged to avoid cancellation due to strike actions by labour, as was the case in three of our patients. The poor economy, coupled with the absence of an organized health insurance scheme in most developing nations is deleterious to efficient operation of day surgery as patients may be unable to pay for medical care. Two of our patients were cancelled due to financial difficulties. In Lagos, 10.5% of cancellations were for similar reasons[9]. It is imperative to ensure that patients are adequately prepared pre-operatively, which includes ensuring an adequate haematocrit level. Although this was done in all our patients, one patient was converted to in-patient care due to anemia which developed in the long interval between scheduling for surgery and the day of surgery. This underscores the importance of patients being seen shortly before surgery. This will enable problems like anaemia, febrile illnesses and the likes, to be detected and treated early. Although it has been shown by Macarthur et al[10] that having a pre-operative clinic was beneficial in this regard, this may be difficult in many developing communities due to stretched manpower, facilities and time constraints. Patients should, however, be seen at the regular clinic as close to surgery date as possible. This recommendation if properly followed could have also identified the pregnant patient in our study who was only discovered to be pregnant in theatre and had to be admitted for observation. We are still faced with a high cancellation rate of urologic day cases and these are mainly due to avoidable reasons. Patient as well as physician education and provision of adequate materials and infrastructural developments are recommended to reduce these; so as to gain maximally from urologic day surgery practice.

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