



ISSN: 2091-2749 (Print)  
2091-2757 (Online)

#### Correspondence

Dr. Jay N Shah  
Department of Surgery  
Patan Hospital  
Patan Academy of Health  
Sciences, GPO Box 252,  
Kathmandu, Nepal  
Phone No: 977-9851040139  
Email:  
drjaywufei@hotmail.com  
jayshah@pahs.edu.np  
drjaywufei@gmail.com

#### Peer Reviewers

Dr. Ganesh Dangal  
Kathmandu Model Hospital,  
Phect Nepal

Asst. Prof. Dr. Ashis Shrestha  
Patan Hospital, PAHS

## Elective surgery patients walk to operating room instead of wheeled in on trolley: patient centered care

Shanta Bir Maharjan,<sup>1</sup> Shailendra Shah,<sup>2</sup> Romi Dahal,<sup>2</sup> Rajan Gurung,<sup>2</sup> Jay N Shah<sup>3</sup>  
<sup>1</sup>Assistant professor, <sup>2</sup>Lecturer, <sup>3</sup>Professor  
Department of Surgery, Patan Hospital, Patan Academy of Health Sciences,  
Lalitpur, Nepal

### ABSTRACT

**Introductions:** Habits and beliefs of earlier practitioners influence medicine. We continue to wheel in the elective surgery patients to operating room (OR) which makes them feel not in self-control and increases anxiety. With few exceptions of heavily sedated, in severe pain or frail patients, most prefer to walk to the OR accompanied by nurse and family, if given the opportunity, in line with patient centered care. We aim to assess feasibility to allow elective surgery patients walk to OR accompanied by nurse and family member.

**Methods:** This was a cross-sectional observation of 100 consecutive elective surgery patients admitted at surgery department, Patan Hospital, Nepal. Adult patients of 15 years or above were allowed to walk to OR accompanied by a nurse and family members. Demographic profile, patient satisfaction, anxiety on arriving to OR, patient feeling of autonomy were recorded to assess patient centered care. Microsoft Excel was used to descriptively analyze the data. Ethical approval was obtained.

**Results:** Of 100 consecutive patients, 62 were female and 38 male, average age 52 years (range 15 to 72), and abdomen surgery 62 (62%). Two patients did not want to walk. The 98 patients who walked to the OR, all were satisfied and 89 were not anxious.

**Conclusions:** Elective surgery patients (98 out of 100) accompanied by nurse and family members walked to operating room satisfied and were not anxious.

**Keywords:** elective surgery, patient autonomy, patient-centered care, patient satisfaction, walking to operating room

## INTRODUCTIONS

Medicine has evolved from social habits and beliefs.<sup>1</sup> Evidence-based practice improves patient comfort without compromising safety. In most hospitals, patients are wheeled in operating room (OR) on trolley by porter or nurse. Loss of self-control and patient autonomy combined with poor eye contact compromises patient satisfaction and increases anxiety. Randomized trial of 1400 patients shows preoperative 'sedation' failed to decrease anxiety, as those who walked were less anxious than sedated and wheeled in OR.<sup>2</sup>

Elective surgery patients walking into OPD and ward can very well walk to OR too if allowed. With few exceptions of heavily sedated, in severe pain or frail patients, most prefer to walk to the OR accompanied by nurse and family member. This respects patient autonomy, increases patient satisfaction and saves logistics.<sup>3</sup>

This study aim to generate evidence on feasibility of allowing elective surgery patients to walk to OR instead of wheeled in to OR.

## METHODS

This was a cross-sectional observational study at unit two department of surgery, Patan Hospital (PH), Patan Academy of Health Sciences (PAHS), Nepal. Adult patients 15 y or above, admitted for elective surgeries were enrolled. The study was conducted for 3 months from Sep-Nov 2015 with aim to enroll 100 consecutive patients. All patients were explained by the nurse in the surgery ward that they can walk safely to OR accompanied by a nurse together with family member. Exclusion- wheel chair bound, unable to walk, patient in pain not willing to walk, emergency patients. Ethical approval was obtained from institutional review committee of PAHS.

This change in practice to allow patient to walk to OR was discussed in the surgery department, the ward nurses, the OR nurses

and anesthetists. The current practice of 5 mg diazepam at bed time, 9 pm, the night before surgery was continued. This dose is not enough to cause sedation to affect normal walking next morning, as patients are routinely send to toilet to empty bladder before transported to OR.

Study variables included age, sex gender and type of surgery, patient willingness to walk, level of anxiety on arriving to OR. The OR nurses were briefed to assess the patients when they receive the patients. The receiving nurse at OR asked same questions, a normal practice for the identification of patients, 1. what is your name, 2. what is your age, and 3. how was your experience of walking. Nurses recorded the experience of walking (good, fair, poor), and based on patients' overall facial expression scored how anxious (not anxious, somewhat anxious, anxious) the patient were while arriving at operation room.

In a predesigned proforma ward nurse filled in the demographic data, and accompanied the patient to the OR, together with their family members. The ward nurse noted if any patient declined to walk and preferred to be wheeled on trolley. The datasheet together with the patient chart was handed over to the receiving nurse at the OR who noted the overall walking experience and level anxiety of patients.

Main outcome measure of this study was the feasibility of this change in practice and patient compliance to walk to the OR. Secondary outcome measures were to observe the experience of walking and anxiety on arrival at the OR. Microsoft Excel was used to descriptively analyze the data.

## RESULTS

There were 100 patients, 62 female, average age 52 y (range 15 to 72), and abdomen surgeries were 74 (74%). Two patients did not want to walk, no reason was asked as it was their choice and rest of 98 walked to the OR without problem, (Table 1).

**Table 1. Profile of adult elective surgery patients (n=100) who walked to operating room instead of wheeled in on trolley**

Profile		N	%	Remarks
Sex	Male	38	38	
	Female	62	62	
Age year	Minimum	15	15	
	Maximum	72	72	
	Average	52	52	
Surgery	Abdomen	74	74	
	Urology	18	18	
	Others	8	8	
Walked to OR	Walked	98	98	No complain
	Did not walk	2	2	Not willing, no reason given
Walking	Poor	0	0	
Experience satisfaction*	Fair	12	12.24	
	Good	86	87.76	
Anxiety on arrival to OR*	Anxious	1	1.02	**
	Some anxious	8	8.16	Gastric cancer-1, cholelithiasis-1
	Not anxious	89	90.82	

Note: OR= operating room, \*values are calculated based on 98 patients who walked to OR, \*\*Female, 36 y, cholelithiasis, past history of treatment for psychiatric illness, now off medicine

## DISCUSSIONS

Majority of our elective surgery patients, 98% (98 out of 100), walked from surgery ward to OR safely accompanied by ward nurses and family members without problem and 97% (95 out of 98) were not anxious when received by OR nurses.

Walking is helpful in reducing preoperative stress because the patient feel in self control, can chat freely with the family members and nurses, can maintain 'eye contact while talking' unlike when on put on trolley. When transported on trolley, people can only look down from above. This was very well put in an editorial 'relieving anxiety by entering the operating room on foot' by Yuko Kojima et al. in a comparative study of two groups of patients. One group of Yuko patients did not have preoperative medication and walked to OR while other group had medication and were transported on trolley.<sup>2</sup> The result was a significantly greater number sedated patients were more anxious than those who were not sedated and walked.<sup>3</sup>

Similarly in a comparative trial of one hundred unmedicated surgical patients to see whether it was acceptable to walk to OR or

wheeled in on trolley. Patients favored walking to the theatre, had positive experience and felt relaxed.<sup>4</sup> The studies have shown that patients prefer to walk to OR, if given the choice, as it provides autonomy and satisfaction being in self-control.<sup>3,4,5</sup> This also saves time and resources on trolley and porter.<sup>1,6</sup>

The practice of 'patient who walked' was successfully introduced by Foothills Medical Centre (FMC) OR committee in 80's in order to improve the quality of service. This happened following the experience of a hospital manager who refused to lie down on stretcher because she felt 'she could very well walk to the OR' as she did not have any premedication. Postoperatively, she shared her experience that walking to the OR had allowed her to remain 'in control' for as long as possible and advocated to offer similar opportunity to other patients so as they are 'not forced of a long, lonely stretcher ride down the halls of the hospital' to reach the OR.<sup>1</sup>

Routine practice, out of assumptions and habit rather than rigorous evidence of 'premedication' to reduce the pre-operative stress and anxiety is of questionable value.

Our patients receive oral 5 mg diazepam at bed time the night before surgery. However, the premedication given too early have their effects wear off before patients arrive in the OR or if administered too late before patients leave the ward, it has negligible effect to reduce anxiety. A randomized clinical trial of 1062 adult patients of elective surgeries under general anesthesia were divided in 3 groups, one received 2.5 mg of lorazepam, vs. no premedication, or placebo. There was benefit with routine use of lorazepam as sedative.<sup>7</sup>

In our cross sectional observational study we found that it is feasible to replace the unnecessary practice of transferring on trolley the otherwise healthy elective surgery patients to the OR. In a questionnaire survey of 'which patients would prefer to walk to theatre', Shobhana Nagraj et al. reports that out of 118 day-cases and 53 in-patients, 64% preferred to walk, 13% would like to travel by wheelchair and 23% by trolley. The subgroup of gynecology patients showed an equal preference for trolley transfer and walking.<sup>3</sup>

In order to change unproven, routine, and habitual protocols to improve delivery of care, a study on elective orthopedic patients was undertaken to determine the preferred mode of travel to the OR. The result was, 89% (62/70) patients preferred to walk and 100% reported excellent to good satisfaction. The patients also felt that their dignity was maintained throughout. Only 7% (5/70) chose trolley and 4% (3/70) chose wheel chair.<sup>8</sup>

Evidences based, critical appraisal of research finding is necessary for up-to-date clinical practice. In recent years, we have witnessed phenomenal increase in publication of scientific literature. The publication should not merely serve the 'science' and fulfill our academic ego of 'ever increasing number publications', rather we need to continually educate ourselves of clinically relevant research for the benefit of patients.<sup>9</sup>

The overall spatial experience of moving through hospital, in day care and in-patient surgery setup, to compare wheeled vs.

walking, the semi-structured interviews of 37 patients revealed that walking made them feel being in active role and control over the situation, whereas being wheeled in OR made them feel passive.<sup>10</sup>

In a recent report, the celebrity 'Sandra Lee' refused to be transported on trolley and instead walked to the OR for double mastectomy for breast cancer. She was accompanied by her longtime partner, the New York governor Cuomo, holding her hand.<sup>11</sup> Most elective surgery patients can walk if they are given the opportunity.

The limitation of this study could be, it was not a randomized comparative study. We were aware of these facts and our aim was to show the feasibility of the acceptance of changes in clinical practice based on published evidences in western countries, which may not be implemented straight away because of the difference in social structure, even though the benefit seems so obvious to allow otherwise healthy elective surgery patients walk to OR accompanied by ward nurse and family members. There were more than one nurse involved in receiving the patients at OR who 'observed the anxiety' and with possible individual perception bias. Involving two nurses to score independently may decrease perceptual bias. However, this would have increased the workload of already busy OR nurses, and our primary goal was to observe the feasibility of change in unnecessary cumbersome practice of forcing otherwise healthy patients to 'lie-down' on trolley which has been shown not to be a pleasant experience.

Our study shows this is very well possible to 'break the stereotype' habit to wheel in the patients to OR, instead of allowing them to walk in the company of family members accompanied by the ward nurse. The nurses observation while receiving patients at OR clearly shows that patients were not anxious, and reported they were satisfied 'walking and talking' instead of being forced to feel like patients, lying on trolley, looking at ceiling and not in self-control.<sup>1-6,8,10,11</sup>

## CONCLUSIONS

Majority of our elective surgery patients (98 out of 100) who walked accompanied by nurse and family members were satisfied and not anxious when they arrived to operating room. This change in practice is safe and feasible.

## ACKNOWLEDGEMENTS

We thank the intern doctors, surgery ward and operating room nurses for their help in collecting data.

## REFERENCES

1. Davies JM. Changing anesthetic practice: walking to the OR. *Canadian Journal of Anesthesia*. 2002 Oct 1; 49(8): 772-6. DOI: <https://doi.org/10.1007/BF03017408>
2. Yuko Kojima et al. Relieving anxiety by entering the operating room on foot. (Correspondence) *Canadian Journal of Anesthesia*. 2002; 49(8): 885. DOI: <https://doi.org/10.1007/BF03017428>
3. Shobhana Nagraj, Celia Ingham Clark, Janine Talbot, Simon Walker. Which patients would prefer to walk to theatre? *Ann R Coll Surg Engl* 2006; 88: 172-3. DOI: <https://doi.org/10.1308/003588406X95011>
4. Porteous A, Tyndall J. Yes, I want to walk to the OR. *Canadian operating room nursing journal*. 1994; 12(2): 15-25. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/8025875>
5. Turnbull LA, Wood N, Kester G. Controlled trial of the subjective patient benefits of accompanied walking to the operating theatre. *Int J Clin Pract*. 1998 Mar; 52(2): 81-3. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/9624786>
6. Eagle CJ, Davies JM. Current models of “quality”—an introduction for anaesthetists. *Canadian Journal of Anesthesia*. 1993 Sep 1; 40(9): 851-62. DOI: <https://doi.org/10.1007/BF03009257>
7. Maurice-Szamburski A, Auquier P, Viarre-Oreal V, Cuvillon P, Carles M, Ripart J, Honore S, Triglia T, Loundou A, Leone M, Bruder N. Effect of sedative premedication on patient experience after general anesthesia: a randomized clinical trial. *JAMA*. 2015 Mar 3; 313(9): 916-25. DOI: <https://doi.org/10.1001/jama.2015.1108>
8. Humphrey JA, Johnson SL, Patel S, Malik M, Willis-Owen CA, Bendall S. Patients’ preferred mode of travel to the orthopaedic theatre. *World journal of orthopedics*. 2015 Apr 18; 6(3): 360-62. DOI: <https://dx.doi.org/10.5312%2Fwjo.v6.i3.360>
9. Choi PT. Best evidence in anesthetic practice: introducing a new feature in the Canadian Journal of Anesthesia. *Canadian Journal of Anesthesia*. 2001 Oct 1; 48(9): 835-9. Available from: <https://link.springer.com/content/pdf/10.1007%2FBF03017344.pdf>
10. Annemans M, Audenhove CV, Vermolen H, Heylighen A. Being Wheeled or Walking: A Qualitative Study of Patients’ Spatial Experience in Two Distinct Day Surgery Centers. *HERD: Health Environments Research & Design Journal*. 2016 Apr; 9(3): 176-89. DOI: <https://doi.org/10.1177/1937586715626548>
11. Sandra Lee walks into the operating room for surgery instead of lying on a gurney [internet]. PEOPLE.com. 2017. Available from: <http://people.com/celebrity/sandra-lee-walks-into-the-operating-room-for-surgery-instead-of-lying-on-a-gurney/>