

Available online at www.sciencedirect.com

ScienceDirect

The Surgeon, Journal of the Royal Colleges
of Surgeons of Edinburgh and Irelandwww.thesurgeon.net

How often does the operating list follow the planned order? An analysis of elective maxillofacial operating lists

Shofiq Islam^{a,*}, Christopher J. Taylor^b, Siddiq Ahmed^a, Ian W. Ormiston^a,
Jonathan P. Hayter^a

^a The Department of Maxillofacial Surgery, Leicester Royal Infirmary, Infirmary Square, Leicester LE1 5WW, East Midlands, UK

^b Wessex Deanery, Southern House, Otterbourne, Hampshire, UK

ARTICLE INFO

Article history:

Received 13 November 2013

Received in revised form

25 January 2014

Accepted 5 March 2014

Available online 8 April 2014

Keywords:

Operating list

Elective surgery

Observed order

Alteration

Day of week

List position

Maxillofacial surgery

ABSTRACT

Objectives: The authors explored consistency of the observed running order in operating sequence compared with prior scheduled listing. We analysed potential variables felt to be predictive in the chances of a patient having their procedure as previously scheduled.

Methods: Data were retrospectively collected for a consecutive group of patients who underwent elective maxillofacial procedures over a four week period. The consistency of scheduled and observed running order was documented. We considered four independent variables (original list position, day of week, morning or afternoon list, seniority of surgeon) and analysed their relationship to the probability of a patient undergoing their operation as per listing. Logistic regression analysis was used to determine significant associations between predictor variables with an altered list order.

Results: Data were available for 35 lists ($n = 133$). 49% of lists were found to run according to prior given order, the remainder subject to some alteration. Logistic regression analysis showed a statistically significant association between original scheduled position and day of week, with list position consistency. Patients listed first were twelve times more likely to have their operation as listed compared to those placed fourth (OR 12.7, 95% CI 3.7–43, $p < 0.05$). Operating lists at the start of a week were subject to less alteration ($p < 0.05$). There was no demonstrated relationship between the grade of surgeon operating and alteration in operating sequence.

Conclusion: Approximately half of lists showed some alteration to the previously printed order. It appears that being first on an elective list offers the greatest guarantee that a patient will have their operation as per prior schedule. It may be reasonable for clinicians to be mindful of potential operating list alterations when preparing their patients for elective surgery.

© 2014 Royal College of Surgeons of Edinburgh (Scottish charity number SC005317) and Royal College of Surgeons in Ireland. Published by Elsevier Ltd. All rights reserved.

* Corresponding author. Department of Maxillofacial Surgery, Leicester Royal Infirmary, Infirmary Square, Leicester LE1 5WW, UK. Tel.: +44 0300 303 1573.

E-mail address: drshafiqislam@hotmail.co.uk (S. Islam).

<http://dx.doi.org/10.1016/j.surge.2014.03.003>

1479-666X/© 2014 Royal College of Surgeons of Edinburgh (Scottish charity number SC005317) and Royal College of Surgeons in Ireland. Published by Elsevier Ltd. All rights reserved.

Introduction

Common to all surgical specialities are the preparation of operating lists which form the basis and structure for operating sessions. Typically, lists are compiled by clerical support staff who are not usually medically trained. Whilst there are some obvious patient factors which contribute to the final order, such as insulin dependent diabetics, infection control, latex allergy and paediatric cases, the majority of elective adult patients are listed on no specific basis.

It is a frequently asked question by patients to their surgical team as to where they are situated on the list. This may relate to their psychological preparation for surgery. Additionally, a patient's position on the list will be crucial in planning the necessary 'nil by mouth' period as well as influencing the preoperative preparation timing.

The authors were interested to explore how consistent the actual order of operating was when compared with the scheduled listing. We considered several potential variables, which we felt may be predictive in the chance of the patient not having their procedure as per the scheduled list. Specifically, we looked at the day of the week, morning and afternoon lists, original position on the schedule, and seniority of the surgeon.

This topic is of relevance to practicing surgical staff in their daily interactions with patients. The issue of operating theatre timings and occupancy, with a view to optimising the efficiency of an expensive resource has been well covered previously.^{1–4} To our knowledge, the present study is the first to address list order consistency, and to focus specifically on patient experience. What factors, if any, increase a patient's chances of having their operation as originally timetabled?

Methods

We retrospectively collected data on a consecutive group of patients who underwent elective maxillofacial procedures at the Leicester Royal Infirmary over a four week period in August 2013. Scheduled operating listing for each day were obtained and cross-referenced with the observed actual order of patients operated on at the end of each day.

Our primary predictor variable in this survey was the original position of each patient on the pre-prepared operating list, and the possible relationship with the likelihood having their procedure as originally timetabled. Thus, the null hypothesis that we wished to test is that there is no relationship between patients original position on operating list and probability of having their actual operation in sequence. Additionally, for each list we obtained data relating the day of week, morning or afternoon list, seniority of surgeon (Staff grade, SpR, Consultant) to explore any bearing these variable may have had.

Only elective adult maxillofacial operating lists with three or more patients were included. Where available the reason for operating sequence alteration was collected and recorded under following categories (ward/bed issue, surgical related, anaesthetic related, and other comprising timing problem, lack of notes or patient moved to alternative theatre).

Data was analysed using the SPSS for Windows statistical package (SPSS Inc., Chicago, IL). Data were assessed using frequency and descriptive statistics. Chi-squared test was used to compare categorical variables and odds ratios were computed. Binary logistic regression analysis was used to determine significant associations between predictor variables with the altered/unaltered list order. A *P*-value <0.05 was considered significant.

Results

There were 35 operating lists during the study period meeting inclusion criteria, with a combined total 133 patients. Approximately Fifty per cent (*n* = 17) of lists were found to run according to pre-prepared patient order. The remaining lists were subject to alteration.

The data stratified by independent predictor variables and the frequencies of altered/unaltered sequences of elective operating lists during our study period are illustrated in [Table 1](#). Operating lists occurring at the start of the week were subject to less alteration compared to those in the later part of the week (Monday 86% versus Friday 67%).

A significantly higher proportion of patients who placed first on the elective list had their operation as originally timetabled ([Table 1](#)). When we explored the 'relative risk' of a patient having their procedure as per original list position, we noted variance between those listed first and those placed second, third and fourth respectively. Patients listed first on the operating schedule were twice as likely (OR 2.2) to have their operation in the correct sequence when compared to patients listed second, and twelve times more likely (OR 12.7) than patients listed fourth on the original operating sequence ([Table 2](#)).

Table 1 – Frequency of alteration in operating list sequence, stratified by independent predictor variables.

Variable	Correct sequence		Total N
	Yes	No	
	Frequency/%	Frequency/%	
Type of list			
AM	79 (72%)	31 (28%)	110
PM	18 (78%)	5 (22%)	23
Day of week			
Monday	12 (86%)	2 (14%)	14
Tuesday	18 (78%)	5 (22%)	23
Wednesday	31 (72%)	12 (28%)	43
Thursday	24 (69%)	11 (31%)	35
Friday	12 (67%)	6 (33%)	18
Surgeon			
Cons	9 (60%)	6 (40%)	15
SpR	35 (83%)	7 (17%)	42
SAS	53 (70%)	23 (30%)	76
Original order			
1st	32 (91%)	3 (9%)	35
2nd	27 (82%)	6 (18%)	33
3rd	25 (76%)	8 (24%)	33
4th	8 (40%)	12 (60%)	20
5th	2 (22%)	7 (78%)	9

Download English Version:

<https://daneshyari.com/en/article/3178425>

Download Persian Version:

<https://daneshyari.com/article/3178425>

[Daneshyari.com](https://daneshyari.com)