

## TO ASSESS THE OUTCOME OF PATIENTS FOR DAY CARE SURGERY

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### Abstract

**Background:** Day care surgery offers advantages for health care delivery system around the world and so rates have steadily increased in both developed and developing countries.

**Methods:** Day care surgery offers advantages for health care delivery system around the world and so rates have steadily increased in both developed and developing countries.

**Results:** Out of 155 patients 89 (57.4%) had an operative time of 00-30 minutes, 64 (41.3%) had an operative time of 30- 60 minutes, 2 (1.3%) had an operative time of 60-90 minutes and none took more than 90 minutes. Two Patients having an operative time period of 60-90 minutes included laparoscopic procedures converted to open cholecystectomies.

**Conclusion:** This study clearly shows that day care surgery is feasible and safe.

**Keywords:** Outcome, day care surgery, Post-operative

### Introduction

Day care surgery offers advantages for health care delivery system around the world and so rates have steadily increased in both developed and developing countries.<sup>1</sup> Day care surgeries result in decompression of busy hospital beds, less nosocomial infection, early recovery in home environment with the family, less disruption of personal life and reduce expenditure of longer hospital stay. In developing countries, with problem of financial constraints, insufficient grants for health care, lack of adequate money for improvisation of operation theatres & recovery rooms and social factors, we are not able to cash on all the advantages of day care surgery.<sup>2</sup>

The original concept as Day care surgery was the admission and discharge of a patient for a specific procedure within the 12 hours. Where the patient required an overnight admission then 23 hours stay was used.<sup>3</sup> Day-care surgery is defined as planned procedures on patients who are admitted and discharged home on the day of their surgery but who requires home facilities and time for recovery.<sup>2</sup> However, the day surgery concept is ambiguous and a 23-hour stay has been regarded as a day surgery procedure in some countries (e.g. in US and UK).<sup>2</sup> Again there are cases that are not admitted but are operated under local anesthesia on OPD basis and sent home the same day.

### Materials and Methods

#### Study Period:

July 2017-Dec 2018; which includes the period of enrolment, analysis and writing.

#### Setting:

This study has been done in a single unit of the Department of General surgery at Indira Gandhi Medical College and Hospital, Shimla w.e.f July 2017 to Dec 2018 on patients attending the OPD as well as admitted for surgery.

**Study Design:** Observational study

#### Sample Size:

Following operations were performed:

Orchidopexy	Excision of ganglion, lipoma
Circumcision	TURBT, Cystoscopy, DJ Stenting
Mesh hernia repair	Herniotomy
Excision of breast lump	Enucleation of sebaceous cysts
Excision of soft tissue tumor	Enucleation of dermoid cysts
Anal fissure dilatation	Abscess Drainage
Laparoscopic Appendectomy	Surgeries for Varicocele, Hydrocele
Laparoscopic cholecystectomy	Surgeries for Fissure/Fistula in ano
Varicose vein stripping or ligation	Excision of pilonidal-sinus

Patients were selected on OPD basis for different day care surgical procedures in Department of General Surgery at IGMC Shimla, during time period of July 2017 to December 2018.

#### Selection of Cases:

Inclusion criteria: -for those operated in Major OT

- Patients were assessed as American Society of Anesthesiologists (ASA) classes I or II.
- For most procedures under GA and SA, availability of a responsible adult was ensured who escorted the patient home and provided support for the first 24h.

- Patient stayed within 30 min of travelling distance from the hospital with adequate motivational level.
- Patient who gave informed consent for the study.
- All the cases operated under Local anaesthesia were not admitted.

#### Exclusion criteria

Patient with the following criteria were excluded:

- Patients with extreme obesity and co-morbid conditions like poorly controlled diabetes, hypertension, and coronary artery disease or ischemic heart disease and with ASA III and IV.

#### OBSERVATIONS

This observational study was conducted in the Department of surgery, I.G.Medical Collage, Shimla from 1st July 2017 to 31<sup>st</sup> December 2018 and included 155 patients selected for day care surgery who presented in surgery unit 3 O.P.D / emergency. Patients were selected for day care surgery after taking written consent from patient / attendant in case of minors and disabled, after explaining the procedure in their own language. There was no age limit in our study. Out of 155 patients 17 (11%) were of age group 0-20 years, 85 (54.8%) were of age group 21-40 years, 39 (25.2%) were of age group 41-60 years, 14 (9%) were of age group >60 years. Youngest patient was 4 years old who underwent Herniotomy and eldest patient was 76 years old who underwent checkcystoscopy. Out of 155 patients, 52 (33.5%) were males and 103 (66.5%) were females.

**Table 1:** (Operative time)

Operative time in minutes	Frequency(n)	Frequency (%)
00-30	89	57.4
30-60	64	41.3
60-90	2	1.3
>90	0	0

Out of 155 patients 89 (57.4%) had an operative time of 00-30 minutes, 64 (41.3%) had an operative time of 30- 60 minutes, 2 (1.3%) had an operative time of 60-90 minutes and none took more than 90 minutes. Two Patients having an operative time period of 60-90 minutes included laparoscopic procedures converted to open cholecystectomies.

**Table 2:** Physical limitation due to pain on post-operative Day -1

Score level (N=155)	Frequency(n)	Frequency (%)
Severe(8-16)	0	0
Moderate(17-24)	2	1.3
Minimal(25-31)	12	7.7
No limitation(32-40)	141	91

Out of 155 patients 141(91%) had no physical limitation due to pain, 12 (7.7%) had minimal limitation, 2 (1.3%) had moderate limitation and none had severe limitation.

**Table 3:** Physical limitation due to pain on post-operative Day -2

Score level (N=155)	Frequency(n)	Frequency (%)
Severe(8-16)	0	0
Moderate(17-24)	2	1.3
Minimal(25-31)	3	1.9
No limitation(32-40)	150	96.8

Out of 155 patients 150 (96.8%) had no physical limitation due to pain, 3 (1.9%) had minimal limitation, 2 (1.3%) had moderate limitation and none had severe limitation.

**Table 4:**

Demographic Variables N=155			
Variables	Opts	Frequency (%)	Frequency (f)
WOUND DAY 1	YES	5%	8
	NO	95%	147

Out of 155 patients on day -1, 147 (95%) had no wound problem like discharge, 8 (5%) had wound problem like discharge. On Day-2 out of 155 patients, 151 (97%) had no wound problem and only 4 (3%) had wound problem like discharge. None had any wound complication during follow up after one month.

**Table 5: NAUSEA/VOMITING**

Score level (n=155)	Day -1	Day -2
Always(2-4)	0(0%)	0(0%)
Sometime (5-7)	3(1.9%)	0(0%)
Never (8-10)	152(98.1%)	155(100%)

Out of 155 patients on Day-1, 152 (98.1 %) had no nausea or vomiting, 3 (1.9%) had it sometimes and none had it always. On Day-2 out of 155 no one had nausea /vomiting ever.

#### Discussion

Patients were questioned regarding the complaints/ limitations on post operative day 1 and 2. 141 (91%) patients had no physical limitation, 12(7.7%) had minimal limitation, 2 (1.3%) had moderate limitation and none had severe limitation. 77% did not experience any pain at all and 23% had pain but managed easily at home on oral analgesic, mainly NSAIDS. None of the patient's experienced so much severe pain which may have required injectable analgesics.

95% had no problem with self care and 5% had problem with self care. Similar findings were observed by Yolande Keulemans et al where 87% had no problem with self care and 13% had some problem with self care after day care laparoscopic cholecystectomy. <sup>4</sup>

In the present study (97%) had no wound infection whereas 3% had problem with the wound in the form of slight discharge. It is in accordance with study done by

Zoutman Dick et al where infection rate in clean wound was 4.62%.<sup>5</sup>

In the present study 152 (98.1 %) never had nausea/vomiting and 3 (1.9%) had nausea /vomiting. In 83 case of laparoscopic surgery only 3.61% had complaint of nausea/vomiting. This percentage is much less than in the study conducted by Frances Chung et al where it was 9.4% in laparoscopic surgery.<sup>6</sup>

### Conclusion

This study clearly shows that day care surgery is feasible and safe.

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