

Improved operating room efficiency by shortening surgery wait times and Turnover

SH Youn, HS Lim, JE Kim, EK Yoo, JS Lee

Operating room, National Health Insurance Service Ilsan Hospital, Goyang, Republic of Korea

Introduction

Same-day surgery canceled or delayed

Operating room vacancy

Due to establishment of new mid-to-large-sized hospitals

Need to strength competitiveness of medical

Due to delay in preparation for surgery

Increased medical staff overtime

Increased Wait times for surgery patients

Patient anxiety occurs

Need to Improve Operating room efficiency

Shorten the wait times and turnover between surgeries by analyzing the delay factors for each patient's movement section

Strategy and Activities

1. Improvement activities to waiting time

✓ The standard for calling surgical patients in the ward was standardized

✓ Quickly assign a surgical patient when the next surgical patient was not assigned

✓ Development of waiting time screen information for surgical patients

순번	응급	수술 방	마취방	진도과	등록번호	환자명	성별	나이	예정수술명	도착시간	카운트	진료과도	항생제투	전준비실	전준비실
1		CO1	General	GS	12345678	홍길동	M	18	Laparoscopic appendectomy	8:30	20	8:50	8:51		

Improved surgical stay time to avoid delays

2. Improvement activities to reduce Turnover

✓ Supplementation of computer system to confirm completion of surgical preparation

✓ Designate a dedicated anesthetic consent person

✓ Training cleaning staff and improving cleansing operation room

- Designate a cleaning room first

✓ Surgical status information screen development (monitor installation)

Operating room status can be checked at a glance

Entered Exit Call/Arrive Local anesthesia General anesthesia Emergency Co-Operation

3. Improve medical staff's awareness and share results of activities

30'30' In time

30'20' In Time

JUST In Time

Operating room status can be checked at a glance

Indicators and Goals

Indicator 1. Reduced the wait times for surgical patients by 10%

Indicator 2. Reduced the Turnover time between surgeries by 10%

* wait times for surgical patients : Sum of waiting times by patient movement section

** Turnover time between surgeries : Time from the O.R. check-out to the next patient's check-in

Problem Analysis

1. Work Process Analysis

Ward

Surgery preparation room

Operating room

(Problem) - Cleaning other room

(Problem) - Pre-medication unsolved - Consent form not completed

(Problem) - Arrived Pre-medication unsolved

(Problem) - Lack of manpower

(Problem) - Call the next patient late in both directions - Next patient not assigned

2. Cause – effect diagram(Fishbone diagram)

Medical team

Related to medical treatment

System

Patient

Wait times, Turnover Delay

Result

✓ Investigation Period: (Pre) May 22 to June 2, 2023 (Post) August 21 to September 1, 2023

✓ Investigation target : local and general anesthesia (Pre) 551 case (post) 683 case

✓ Investigation Method: EMR 『Electronic medical record』

Indicator 1. Wait times for surgical patients

Pre Post

Decreased by 14%

[Department classification]

Department	Pre	Post
CAM	11	11
PS	21	20
OMS	23	24
EYE	24	24
URO	24	21
CS	26	18
GS	27	24
OBGY	27	22
NS	28	26
ENT	31	33
OS	35	24

Indicator 2. Turnover time between surgeries

Pre Post

Decreased by 24%

[Classification by operating room]

Operating room	Pre	Post
A1	4	5
A2	20	24
A3	26	26
A6	23	17
C1	22	29
C2	43	44
C3	31	24
C4	47	20
C5	55	24
C6	26	19
C7	35	20
C8	35	22
C9	40	16
C10	27	29
C11	41	41
C12	50	48
C13	25	38
C14	32	25
C15	53	43

Conclusion & Suggestions

Promote operating room operation efficiency by improving the work procedures for each section according to the patient movement path

Continuous improvement activities and monitoring will be necessary, and multidisciplinary collaboration and management between wards, medical departments, and operating room is considered necessary

NHIS

National Health Insurance Service

Ilsan Hospital

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