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DEVELOPMENT OF CLINICAL PATHWAY FOR PLASTIC SURGERY

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INTRODUCTION

Asan Medical Center has developed **Clinical Pathway** (here in after refer to as "CP") that standardized its medical treatment process, **in order to set clear objectives for its medical treatment and to effectively utilize its available resources.**

Since 2018, the Center's plastic surgery department has implemented the Breast cancer Reconstruction and Head & Neck congenital malformation part CP for the standardization of its medical treatment process.

There was no standardization for the medical treatment of the patients that received surgeries not developed by CP, which lead to additional development of **CPs in 2020 on the seven types of frequently operated plastic surgeries.**

AIM

To standardize prescribing and increase resource efficiency, including **antibiotic days and length of stay** for high-frequency surgeries in plastic surgery.

METHOD

1) Problem Analysis

The analyzed the processes of plastic surgery on the patients and of each individual operating surgeon's treatments.

The applicable surgeries were:

- ① Blow out fracture ② Zygoma fracture
- ③ Mandible fracture ④ Free Flap Reconstruction
- ⑤ Lymphedema, ⑥ Nasal bone fracture, and
- ⑦ Mass excision (Clean/Open wound).

The scope of the analysis **included prophylactic antibiotics, drugs, tests, essential/behavioral prescriptions and other prescriptions status And nursing activities, analyzed together with a satisfaction** survey on intern, senior residents and nurses participating in the treatment process.

2) Main Indicator and Objective

- ① Development and **implementation of CP** on the highly frequent plastic surgery
- ② Medical treatment results **before and after CP implementation, antibiotics usage status, and medical staff's satisfaction ratings**

RESULTS

1) CP Implementation Rate

During 3 months(August-October 2020) after developing and implementing CP,253 out of 253 CP-applicable patients received the 7 surgeries that implemented CP, having the **CP implementation rate of 100%**. 247 of 253 patients who applied CP completed the CP, and the **CP completion rate was 97.6%**. **The average length of hospital stays** for surgical patients **decreased by 0.67 to 4.15 days depending on the surgery** compared to before CP implementation.

In addition, there was no difference before and after implementation in the treatment outcome indicators of reoperation rate within 30 days of surgery, ER revisit rate within 30 days of discharge, and readmission rate within 30 days of discharge.

2) Main Indicator

- **The number of days for antibiotic prescription to discharged patients** during 3 months before CP implementation and 3 months after CP implementation **decreased by 2.0~5.0 days** depending on the surgery, compared to before CP implementation

Average days of antibiotic use

5.00

pre(day)

2.48

post(day)

Averager length of hospital stays

5.64

pre(day)

4.04

post(day)

Medication Return rate

42.30

pre(%)

13.7

post(%)

Medical staff's satisfaction

3.4

Doctor(pre)

4.5

Doctor(post)

3.1

nurse(pre)

3.6

nurse(post)

CONCLUSIONS

Through the development of CP, **the treatment process of the surgery was standardized** to improve antibiotic abuse, and no difference in treatment results was found.

Furthermore, it contributed to shortening the hospitalization period, and above all, improved effective communication, increased work satisfaction, and made it easier to share treatment plans with patients/guardians.

The Hospital nominated and rewarded the CP developed by the plastic surgery department as a Model CP, and is encouraging other specialty medical departments for the development of CP.

CONTACT INFORMATION

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