REDUCING REWORK THROUGH OPTIMISING SPECIALIST OUTPATIENT CLINIC DAY SURGERY AND LABORATORY BILLING

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INTRODUCTION

In SGH, the Department of Otolaryngology-Head & Neck Surgery (ENT-HNS) provides outpatient consultation services from ENT Centre and Specialist Outpatient Clinic (SOC) A. Patients receiving treatment under this department are commonly treated for conditions relating to the ear, nose and throat. As part of the care provided, patients may undergo minor procedures clinic, thus converting their outpatient visit to a Day Surgery visit. One such procedure is Post Nasal Space Biopsy (PNS Bx).

PROCESS IMPROVEMENT

Through patient feedback and staff engagement, Day Surgery Billing of minor procedures performed in clinic was an opportunity for improvement. Multiple stakeholders from SOC, Patient Financial Services (PFS), Finance, Pathology, Information Technology(IT) Office and ENT-HNS Department were engaged to review the current workflow. The revised workflow was then piloted from March 2020 onwards and the results were tracked from April 2020 to March 2022 (FY20-FY21).

Previous Workflow

S SUPPLIERS	I INPUTS	P PROCESS	O OUTPUTS	C CUSTOMERS
• Clinicians • Patients • Clinic Staff • Pathology Lab	• Examine patient • Order biopsy • Specimen • Charging of services • Analysis of specimens		• Accurate billing of services rendered • Patient satisfaction • Accurate input of charges • Payment for services provided	• Patients • Patient Financial Services • Pathology Lab

Clinician examines patient and determines that a PNS Bx is necessary → Clinician order biopsy in Outpatient Visit account → Patient undergoes local anesthesia and biopsy is performed → Counter staff manually transfer the charges from Outpatient Visit account to a newly created Day Surgery account → Patient is billed for consultation and procedure charges → Specimen is sent to pathology laboratory for analysis → Laboratory analysis is completed and charges are sent to clinic for billing → Clinic staff coordinate with PFS to reopen Day Surgery account to input laboratory charges → Clinic staff contacts patient to inform them of the updated charges, including, laboratory charges → Clinic staff coordinate with PFS to finalize and close the Day Surgery Account

Opportunities for Improvement/ Feedback Provided:

Patient Dissatisfaction

Patients were dissatisfied with being unaware of the additional laboratory charges prior to the procedure.

Inaccurate Billing of Charges

No interface of Laboratory and Outpatient systems, hence the need to manually input charges, and an increased risk of human error.

Staff Dissatisfaction

Clinic staff would need to perform rework and rectification of billing errors, while also facing dissatisfied patients.

Improvements

Process Improvement 1: Interface of Day Surgery and Laboratory Billing

IT Office was engaged to enable the interface function of SOC Day Surgery and Laboratory Billing.

Process Improvement 2: Development of Financial Counselling Information Sheet

A PNS Bx Patient Information sheet was developed to counsel patients of the additional charges incurred from the biopsy. Staff were trained to provide Financial Counselling to patients using the information sheet.

Process Improvement 3: Sharing with Clinicians

The revised workflow was shared at clinical department meetings to gather the support and participation of the clinicians.

Process Improvement 4: Enabling IT Equipment

Colleagues from IT Office were engaged to update current equipment in clinics (CPOE* Printers and PC) to enable the printing of Day Surgery Account CPOE* labels.

**CPOE: Computerized Providor order Entry*

Revised Workflow

Clinician examines patient and determines that a PNS Bx is necessary → Clinic Staff creates Day Surgery Visit Account → Clinician order biopsy in Day Surgery Visit Account → Room Assistant provides Financial Counselling to patient for laboratory testing specimen → Patient undergoes local anesthesia and biopsy is performed → Patient is billed for consultation and procedure charges → Specimen is sent to pathology laboratory for analysis → Laboratory analysis is completed and charges are automatically interfaced into patient billing and finalised

Outcome of Workflow Revision:

Improved Patient Satisfaction

Patients are aware of the laboratory charges and are not surprised upon receiving the final bill, and there has been no recorded feedback since.

Accurate Billing – Missing Charges

With the interface of billing systems, the charges are automatically inserted by the system, thereby eliminating human errors.

Manpower Savings on Rework

With the interface of systems, there is no manual entry of charges or coordination of subsequent laboratory charges by clinic staff. This equals to 15 minutes of manpower savings per case.

	No. of Cases	Time Saved per case	Hours Saved
FY20	283	0.25 Hrs	70.75
FY21	282	0.25 Hrs	70.5
Total Manpower Hours Saved			**141.25**

Since the pilot began in April 2020, there has been a total savings of **141.25** hours

Improved Staff Satisfaction and Morale

As the charges have been financially counselled to patient, clinic staff do not need to contact patients to inform about the charges.

CONCLUSION

With the revised workflow, SOCs saved 141.25 hours of rework.

EXPANSION OF PROJECT

With the success of the pilot, the clinics would proceed with other clinic procedures using the same revised workflow, such as Nose Polyp Biopsy and Larynx lesion Biopsy. This optimized workflow can be adapted by other SOCs to perform minor procedures.