

## **Project Title**

A hospital-supplier win-win – Purchasing Order Electronic Data Interchange and Invoice Barcode for information transfer

## **Organisation(s) Involved**

Tan Tock Seng Hospital

## **Project Period**

Start date: 2014

Completed date: 2018

## **Aims**

Improving order processing speed and reducing errors from ordering and good receipt.

## **Background**

Traditional manual ordering of goods sees hospital buyer faxing their orders to vendor. In 2014, Tan Tock Seng Hospital (TTSH) automated sending of these orders via emails to suppliers upon successful creation of POs in hospital inventory system. While this email automation benefited the hospitals' buyers, suppliers still need to manually enter or upload into their own systems. This manual processing of document slows down order processing and is a potential source of error. In 2017, to aid suppliers' business efficiency, TTSH collaborated with a few public hospitals, National Healthcare Group Pharmacy and two major suppliers, Zuellig Pharma (ZP) and Diethelm Keller Siber Hegner (DKSH), to develop PO EDI capability which allow seamless interfaces between hospital system and vendors' order processing system. Traditional manual good receipt at hospital is inefficient, requiring receivers to match accompanying paper invoice/ delivery order with physical good and hospital system separately. There are a lot of duplicated human-paper and human-system interactions. In exchange for the PO EDI implementation in 2017, ZP provided an invoice barcode on their invoice later that year. Using TTSH pharmacy's Good Receiving application (developed in

2016), Invoice - PO matching and goods receipt information capturing were possible in a single barcode scan.

## Methods

1. Electronic data interchange (EDI) for Purchasing Order (PO) communication to supplier
2. Single invoice barcode scanning for good receipt into hospital inventory system

## Results

Based on TTSH internal voluntary reporting, ZP's delivery errors drop by 50% from 36 (2016 Q3 – 2017 Q2) to 13 (2017 Q3 – 2018 Q2) after implementation of PO EDI in 2017. With invoice barcode scanning, TTSH pharmacy receiver saw an annual saving of 190 man-hours (based on numbers of ZP's deliveries from Nov 2017 to Apr 2018).

## Conclusion

This win-win collaboration is possible due to IT investment by both the supplier and hospital on their respective systems to jointly develop capabilities for purpose of process improvement and innovation.

## Project Category

Process Improvement, Technology & Automation

## Keywords

Process Improvement, Technology & Automation, Information System, Productivity, Electronic Data Interchange, Invoice Barcode, Tan Tock Seng Hospital, Allied Health, Pharmacy, Supply Chain Management, Purchasing Order, Delivery Errors, Inventory System, Data Security

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