

IMPLEMENTATION AND EVALUATION OF TELEPHARMACY DURING COVID-19 PANDEMIC IN AN ACADEMIC MEDICAL CITY : PAVING THE WAY FOR TELEPHARMACY

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Background and Importance

A leading public healthcare institution implemented a disruptive innovation of Tele pharmacy in pursuit of compliance with the National COVID-19 Response Framework. It emerged and proved to be an essential and critical pillar in suppression and mitigation strategies. Tele pharmacy innovation resulted in Pharmacy staffing protection and provided uninterrupted access and care continuum to the pharmaceutical services, both for COVID-19 and Collateral care.

Aim and Objectives

To evaluate the impact of implementing Tele-pharmacy during the COVID-19 pandemic on the safety of pharmacy staff and patients.

Material and Methods

Pharmacy Department redesigned a new workflow that combines both on-site and remote staff through a **secured VPN access** to our HIS this new design will prevent any direct interaction between pharmacist and patient or with other health care providers at the same time those new changes won't compromise on patient safety and medication distribution.

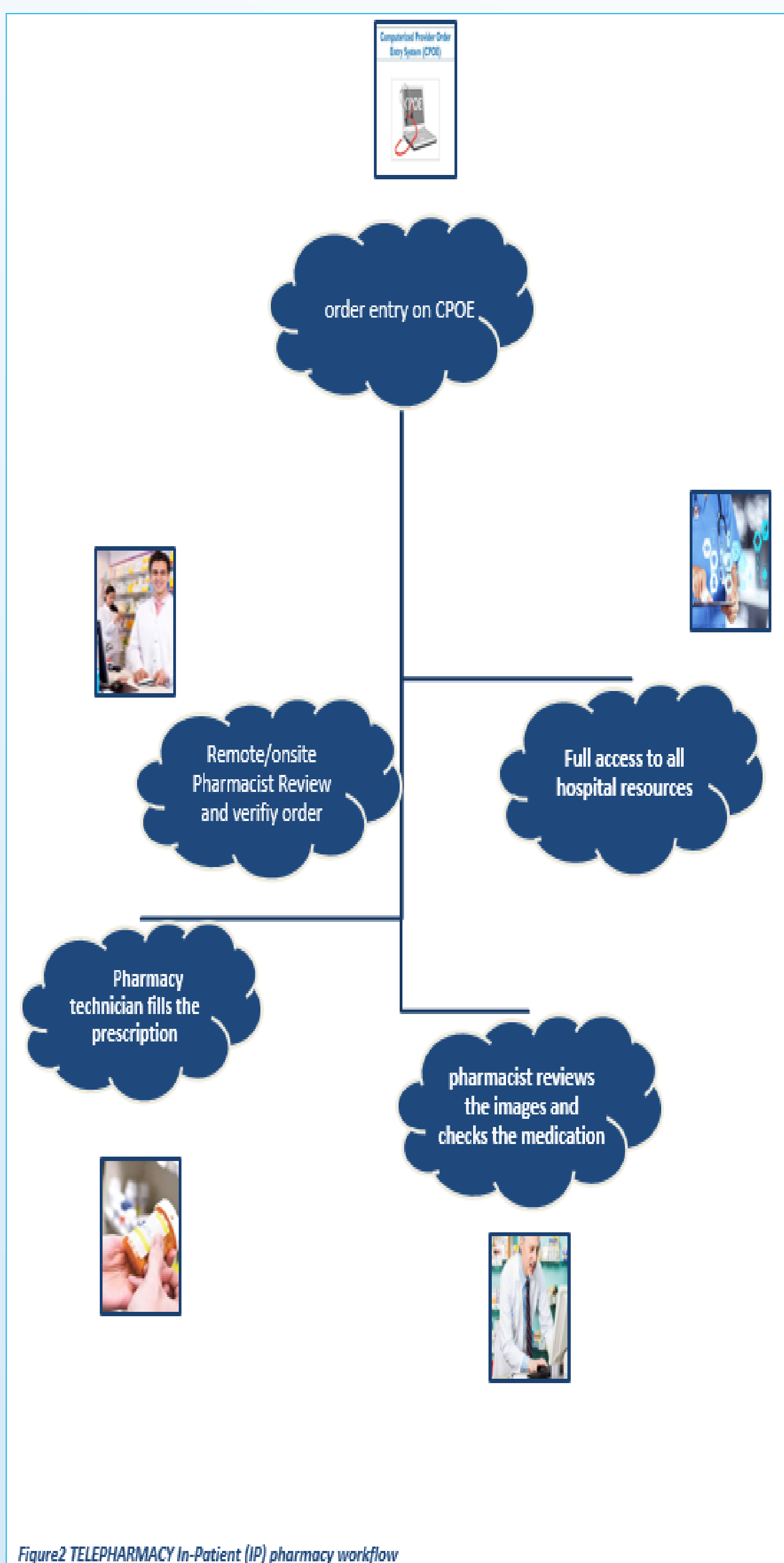
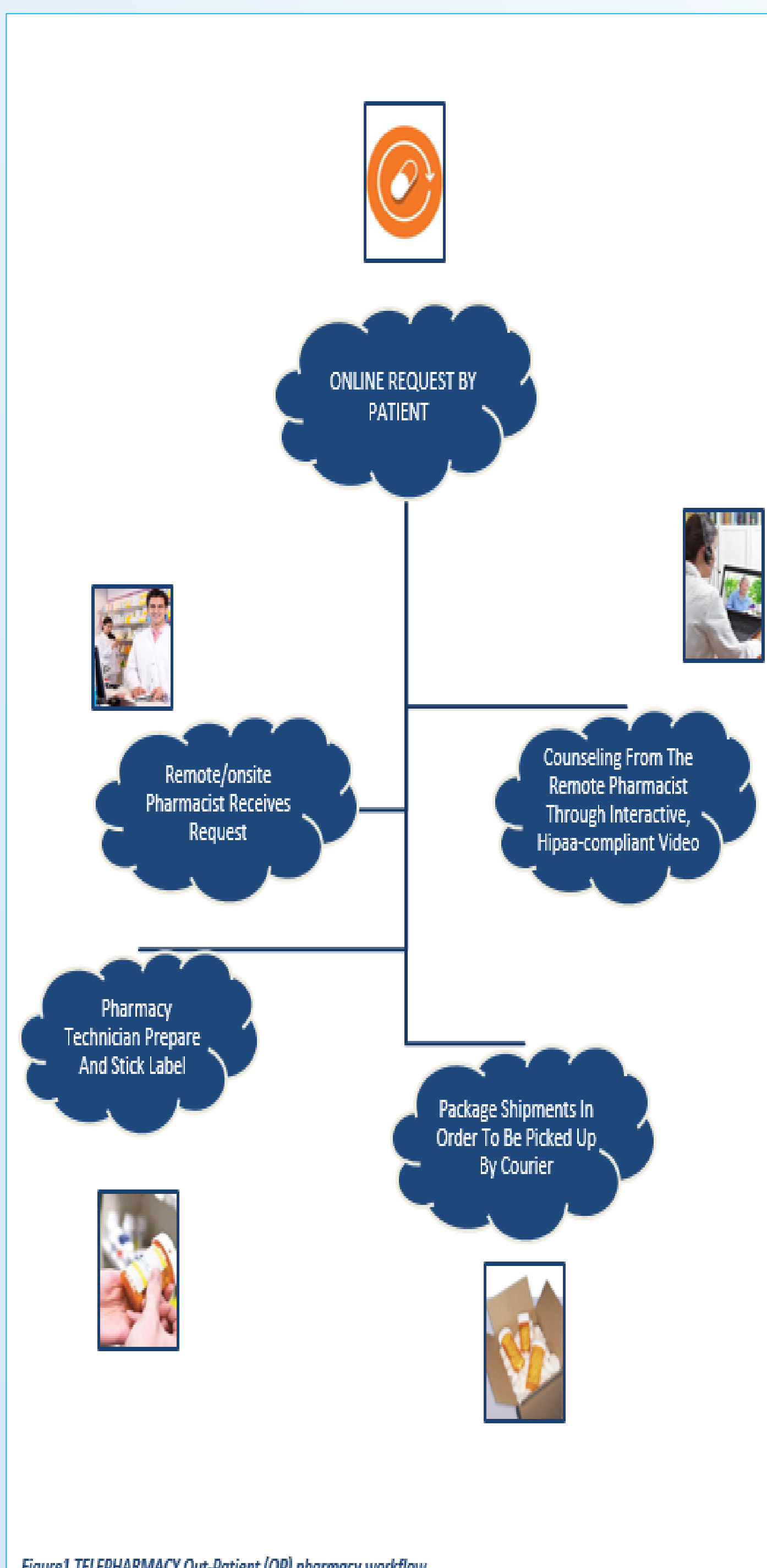


Figure1. TELEPHARMACY Out-Patient (OP) pharmacy workflow

Figure2. TELEPHARMACY In-Patient (IP) pharmacy workflow

Results

The Pharmacy department has the capacity to switch all out-patient prescriptions to be requested through the online portal and a total of **14,618 medication shipments** got home delivered from **15 march to June 10, 2020**. **14,618 medication shipments** have been delivered out of **25,520 online requests** submitted, the difference between the number of delivered prescriptions and received requests was due to repeated submissions by patients, or refill due date didn't arrive.

WhatsApp Business has been initiated for direct communication between patients and pharmacists.

Inpatient pharmacy and out-patient pharmacy around **10,030 orders were verified through remote access**.

The below table shows the workload done starting the 1st of March until June 10, 2020.

DATE	TOTAL NUMBER OF RECEIVED ONLINE REFILL REQUESTS
MARCH 2020	3,340
APRIL 2020	9,413
MAY 2020	4,990
JUN 10, 2020	7,777
Total Number of Requests During 2019	488
TOTAL Numbers of Requests 2020	25,520
TOTAL SHIPPED 15 march to June 10, 2020	14,618
WhatsApp service	
WhatsApp Sent Messages	14,633
WhatsApp Received Messages	26,613
Remote access order verification	
NUMBER OF ORDERS VERIFIED THROUGH REMOTE ACCESS (OPD)	4,650
NUMBER OF ORDERS VERIFIED THROUGH REMOTE ACCESS (IP)	5,380

Conclusion and Relevance

In conclusion, the implementation of Tele pharmacy via the utilization of **medication home delivery services, remote access,** and modification of the previous workflow was associated with promising outcomes in terms of **efficient, high-quality pharmaceutical care delivery** whilst avoiding medication distribution disturbances as well as containing the spread of the pandemic amongst staff and patients, thus, ensuring their safety during this crisis.

Conflict of Interest

The authors declare that they have no conflict of interest.