



# PHARMACEUTICAL CARE INTERVENTIONS DURING COVID-19 PANDEMIC IN AN OUTPATIENT SETTING

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## Background

Clinical pharmacy practice requires the assessment of prescriptions and relevant clinical data of patients to optimize the effectiveness and safety of treatments. Interventions by the pharmacists have always been considered as a valuable input by the health care team in the patient care process by reducing the medication errors, rationalizing the therapy and reducing the cost of therapy. However, the unprecedented Covid 19 pandemic, brought about changes to pharmaceutical care practice as window dispensing was reintroduced as the standard of care in pharmacy

## Aim

To assess the level of prescriptions intervened by clinical pharmacists during the pandemic at outpatients clinical pharmacy unit as a testament to the importance of pharmaceutical interventions in all clinical situations

## Methods

This was systematic retrospective study designed to evaluate and characterize the interventions by pharmacists in medical out-patient (MOP), Pharmaceutical care Unit of the University College Hospital, Ibadan. The study was carried out by assessing records of all intervened prescriptions during all clinic days at the Medical Out-patient pharmacy of University College Hospital, Ibadan within the Covid 19 scaling down period; January 10, 2021 to August 26, 2021. It was conducted after an official permission obtained from the Deputy Director of Pharmaceutical Services, University College Hospital, Ibadan. Intervened prescriptions were categorized in 13 predefined fields. Severity of consequences were ascertained according to PCNE classification

## Results

The total number of prescriptions assessed was 6,563 with 4,448 prescriptions dispensed. A total number of 176 prescriptions were intervened within this period which is about 3.9 % of dispensed prescriptions. Exactly 75 of the intervened prescriptions were of male patients constituting 42.6% of the total and 101 were of the female patients constituting 57.4 % of the total intervened prescriptions. Only 10.1% of the intervened prescriptions were of children given that a child means every human being below the age of eighteen years. Majority n=49 (27.8%) of the interventions done were on need for additional medication. Transcription errors due to illegibility of prescription or missing sections of prescription was 15.9 % of the total. Medication switch recommendation accounted for 9.7% of the intervened prescriptions while Therapy duplication was exactly 9%. Overdose was the least intervention done taking 0.56% of the interventions. Sub therapeutic dose and Drug-drug interactions were pegged at 6.25% and 6.81% respectively.

## More Results

An estimated, 80.6% of the interventions were carried out mainly to address the minor significant medication errors. Moderately significant interventions were observed in 14.2% and 5.1% of them were having the impact on major medication errors.

	Minor	Moderate	Major
Counts	142	25	9
Percentage	80.6%	14.2%	5.1%

Table 1: Severity of Medication Errors Intervened

S/N	Categories of interventions	Number	Percentages
1.	Change medication order/Clarify medicine	0	0
2	Medication switch recommendation	17	9.659091
3	Prescribing medication without indication	0	0
4	Therapy duplication	16	9.090909
5	Overdose	1	0.568182
6	Sub-therapeutic dose or duration	11	6.25
7	ADRs/drug-drug interaction	12	6.818182
8	Need for additional medicine;	49	27.84091
9	Transcription error	28	15.90909
10	Administrative issues	4	2.272727
11	Not reviewing past medical history of pts.	12	6.818182
12	Wrong drug	10	5.681818
13	Non adherence	16	9.090909

Table1: Categories of interventions Done

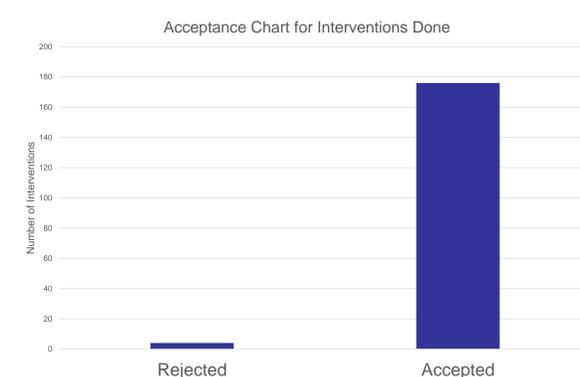
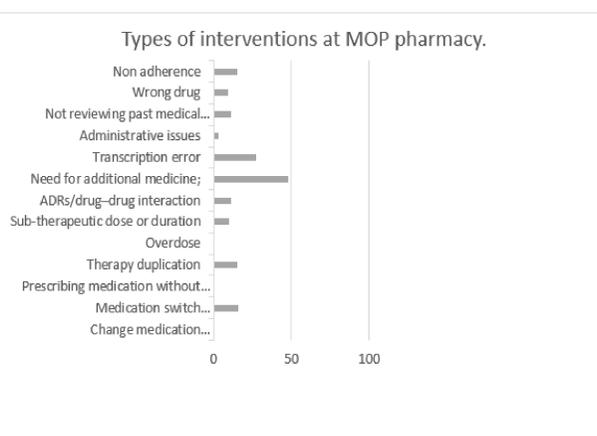


Fig 2: Acceptance Chart for interventions in MOP Pharmacy

## Conclusion

Despite the recommendations by the FIP for Pharmacists to revert to window dispensing during the pandemic, it is apparently important to actively continue to carry out pharmaceutical care activities and put measures in place to identify and resolve potential and actual drug therapy problems.

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