



PHARMACISTS ON THE FRONTLINE; FITTED UP TO FACE PANDEMIC WOES

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ABSTRACT

The coronavirus disease 2019 (COVID-19) has rapidly spread from its origin and the outbreak has raised an intense attention internationally and brought new challenges and opportunities to health care system. This sudden outbreak requires a different set of practices so as to ensure safe and effective medication use. The objective of this article is to exhibit the experiences of trainee clinical pharmacists, who observed the adaptability and resilience of the pharmacy team when an unanticipated transformation took place for a major trauma care centre to a COVID- care setup.

KEYWORDS: COVID 19, Pharmacy department, Resilience, SARS-CoV-2.

INTRODUCTION

The coronavirus disease 2019 (COVID-19) is caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) and has emerged as the biggest public health threat the world has faced in recent years.^[1] Since the detection of its outbreak in the Wuhan province of China in December 2019, the virus has spread rapidly across the world with devastating impact on practically every aspect of daily life.^[2] On March 12th 2020, “COVID-19” was declared as a global pandemic by the World Health Organization (WHO).^[3] The novel virus poses new challenges and opportunities to health care systems around the world by requiring changes to daily practices in order to ensure the health and safety of patients and health care workers.^[4]

Hospitals in India started preparing to face the unprecedented challenges associated with this pandemic. Streamlining workflows for rapid diagnosis and isolation, clinical management and safeguarding from infection will matter not only to patients with COVID - 19 but also to health – care workers and other patients who are at risk of nosocomial transmission of the novel virus.^[5] National and local responses to this crisis varied significantly but across the board nation-wide lockdowns and targeted quarantines were mandated, affecting billions of people world-wide simultaneously.^[6] The scale and magnitude of this event truly did defy imagination or pre planning yet health care professionals like pharmacists were required to provide uninterrupted service and care to patients and in many cases, expanded their repertoire of clinical skills to perform new and even more challenging responsibilities.^[7,8]

This study has been conducted in Ganga Medical Centre and Hospitals Pvt Ltd. This 650-bedded tertiary care centre is one of the biggest and premier trauma, orthopaedic and plastic surgery hospitals in our country, providing exceptional treatment and maintaining high standards in safety, results and ethical values. The wide number of trauma-care cases, variety of orthopaedic diseases treated, the expertise in managing simple and complex plastic surgeries, the countless number of surgeries performed every year and the collective wisdom and academic acumen of the hospital is well-known both nationally and internationally. In combating COVID-19, the Ministry of Health has designated several non COVID-care hospitals and facilities to act as COVID-19 referral and screening centres for centralized and standardized inpatient treatment.^[9] There was a sudden surge of COVID patients during the pandemic waves and out of the blue a major trauma care setup was converted into a COVID care centre with hasty inflow of patients.^[10] Most of the admitted COVID patients were in need of oxygen and other essential resources. This overnight transition was not that easy as it sounds. Routinely before the COVID-19 pandemic, clinical pharmacist would review the appropriateness of medications by regular ward rounds, monitoring patients daily progress by interacting with patients, Proper counselling, Medication reconciliation, ADR monitoring, dosage calculations, medication stock audits and all these regular processes were interrupted. In addition to this, the other departmental activities such as supply chain were cut down which resulted in stock out of inventory. Making medical equipment and vital covid drugs available during these days was a back-breaking task. In

order to limit the potential spread of the virus in the pharmacy department, the workspace has to be reorganised and the ultimate aim was to restrict the staffs unnecessary movements, to limit the spread of the virus.^[11]

MATERIALS AND METHODS

Design

A quasi-structured questionnaire was developed and used to guide data gathering. This questionnaire was focussed on pragmatic adaptation strategies undertaken by pharmacy department during the times of COVID crisis.

DATA COLLECTION AND ANALYSIS

Data were collected through probability sampling method with the help of questionnaires and Google forms. The emphasis of this study is to focus on specific personal and professional responses of the entire pharmacy team, regarding their real time experiences.

Rolling With The Punches In Inventory Management

Multiple waves caused an unprecedented impact on drug procurement and supply. Compromising quality was a major issue. Right item from the right source in desired quantity at affordable prices when needed that is what the pharmacy team usually aim for. But it was very difficult to acquire these processes at the pandemic as we had no option other than to negotiate.^[12] Flow of raw materials were interrupted due to the logistic issues which ended up in no assurance from dealers. Usual supply chains were broken and making things available on time was a difficult task as we never had a good deal with other firms, there was a hike in local purchases and this continued need of materials and drugs caused a remarkable rise of drug costs.^[13] Reviewing spurious drugs and vendors were literally out of the question at this time. In the huge process of framing Surgical care into a medical set up by understanding the medical needs was a crucial piece of work.^[14] The whole inventory pattern was reframed and the pharmacy team as a whole

tried and developed connections to acquire emergency supplies and distributed them to meet the patient demands.^[15]

Covering All The Bases-The New Norms

As soon as the hospital started taking COVID patients in bulk, the clinical pharmacist swiftly changed our usual ways of daily duties, to better support the pharmacy department and hospital as a whole. Our routine patterns were changed to adapt the “new norms”.^[16] The challenges faced were staggered working hours to ensure social distancing, decreased participation in clinical rounds with the physicians limited assessment and counselling sessions with patients, inadequate evidence for COVID-19 treatment, medication administration and charting accuracy in the wards, lack of assessment in patients own medication history and the medication availability during their admission. Due to all these limitations, polypharmacy has been a major issue.^[17] Medication-related interventions identified by clinical pharmacist are communicated to the wards via telephone. With the help of video calls, clinical pharmacist assisted in dilution and administration of medications for nursing team and counselling regarding usage of medical devices for the patients as well. Dose tapering was ensured in steroid prescribed patients. An internet connection with consultants helped us to reach the most needed medicine (eg: Remdisivir) and provided them to the most required ones.^[18]

We framed the questionnaire, which was about their personal and work concerns and circulated this among all the pharmacists and trainees. 46 of the available pharmacist responded to the same and we found out the vast majority of workers were satisfied with the flexibility of the pandemic work environment and received enough care and support from the coworkers. The detailed information about this has been given in table:1.

Table no. 1: Pharmacist concerns during the COVID-19 pandemic.

Concerns during covid 19	Pharmacist N=26	Trainees N=20
Was it difficult to cope up with the COVID norms?		
• Very difficult	7.69%	5%
• Difficult	46.15%	55%
• Neutral	30.76%	30%
• Relatively easy	11.53%	10%
• Very easy	3.84%	0%
Were you concerned about the impact of Coronavirus on your health?		
• Extremely concerned	11.53%	10%
• Very concerned	53.85%	60%
• Somewhat concerned	19.23%	25%
• Not too concerned	11.53%	5%
• Not at all concerned	3.84%	0%
Was your normal working hours altered?		
• Yes	46.15%	85%
• No	53.85%	15%

Did you test COVID positive during this period?		
• Yes	23.07%	30%
• No	76.92%	70%
Did you experience work stress?		
• Yes	57.69%	30%
• No	42.30%	70%
Did you fear about being a vector and spreading the disease to patient and family members?		
• Yes	69.23%	85%
• No	30.76%	15%
Did any event cause inventory depletion?		
• Yes	38.46%	-
• No	61.53%	-
Did you experience lack of co-operation among co-workers?		
• Yes	19.23%	10%
• No	80.76%	90%
How many of these professional concern you had?		
• Schedule/Family work imbalance	14.06%	0%
• Security	10.93%	23.33%
• Difficulty to interact with patient	17.18%	46.66%
• Service cuts	18.75%	0%
• Work overload	26.56%	3.33%
• Uncertain information	9.37%	26.66%
• Others	1.56%	0%
• None	1.56%	0%

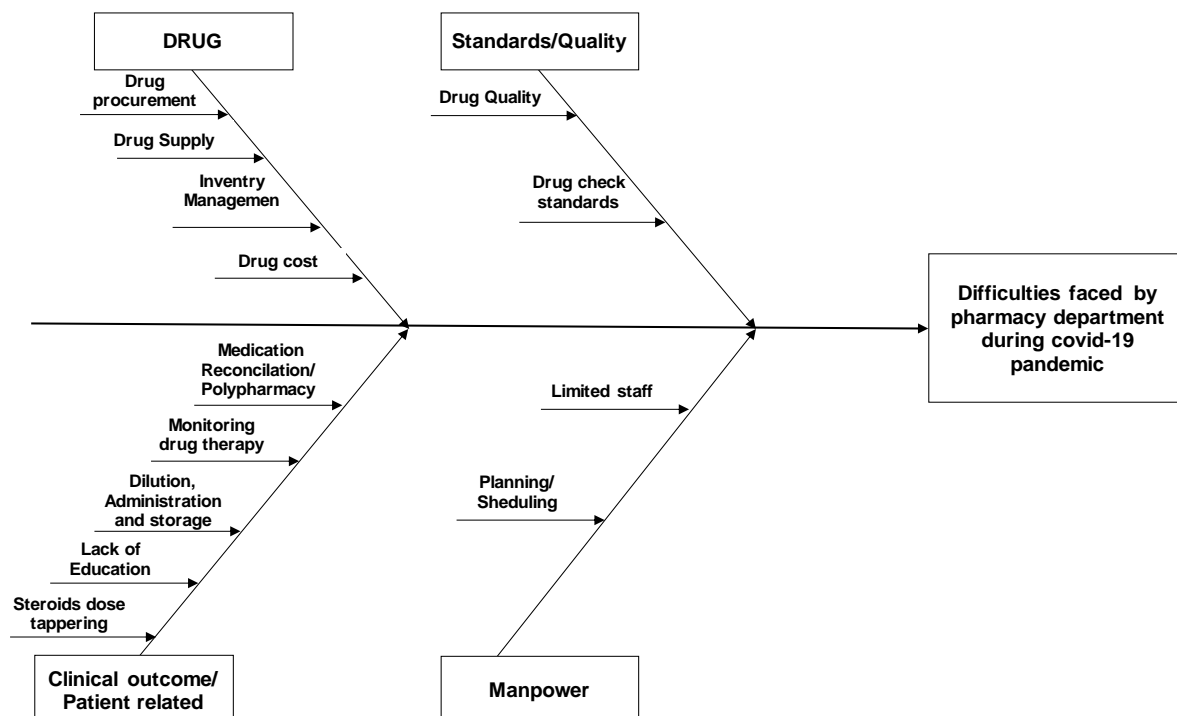


Figure no. 1: Difficulties faced by the pharmacy department during the COVID.

CONCLUSIONS

The clinical pharmacist responded shiftily and actively to the COVID 19 pandemic outbreak with an aim to sustain the quality standards of patient hospitality and to adapt to the new norms as a way of everyday work and life. Our

community faced very unprecedented an demanding situation since the global outbreak of the pandemic. We understood the importance of versatility and ever readiness to accept and adapt the changes. The pandemic taught us how contingency plans play key role in facing

sudden changes like COVID pandemic outbreak. Most importantly, the experience we observed proved that teamwork is the very essence of quality patient hospitality at times of COVID 19 pandemic.

REFERENCES

- Lay Ting Pee, Hairos Izha Rosli, Pei Feng Chong. Clinical Pharmacist in a COVID -19 Hospital – A Malaysian Experience. *Malaysian Journal of Pharmacy*, 2021; 7(1).
- Hopkins University Coronavirus Resource Centre John. Mortality analysis. <https://coronavirus.jhu.edu/data/mortality>. Accessed September 11, 2020.
- World Health Organization (WHO). Director-general media briefing. Accessed May 12 2020 at <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-11-march-2020>; March 11 2020.
- Jean-Philippe Adam, Mechael Khazaka, Fouad Charikhi. et al Management of human resources of a pharmacy department during the COVID-19 pandemic: Take-aways from the first wave. *Research in Social and Administrative Pharmacy*, 2021; 17: 1990-1996.
- Mitali Sengupta, Arjith Roy, Arnab Ganguly. et al Challenges Encountered by Health care Providers in COVID-19 Times: An Exploratory Study. *Journal of Health Management*, 2021; 23(2): 339-356.
- Zubin Austin, Paul Gregory. Resilience in the time of pandemic: The experience of community pharmacist during COVID -19. *Research in Social and Administrative Pharmacy*, 2021; 17: 1867-1875.
- Jiancong Wang, Mouquing Zhou, Fangfei Liu. Reasons for healthcare workers becoming infected with novel coronavirus disease 2019 (COVID-19). *J Hosp Infect*, 2020; 105(1): 100–101.
- Adams JG, Walls RM. Supporting the healthcare work force during the COVID-19 global epidemic. *J Am Med Assoc*, 2020; 323(15): 1439–1440.
- Belen Derqui, Viachaslau Filimonau, Jorge Matute. Assessing the scale of adoption of sustainability practices by community pharmacies in Spain in the time of COVID-19. *Sustainable Production and Consumption*, 2021; 27: 1626-1636.
- Song Z, Hu Y, Zheng S, Yang L, Zhao R. Hospital Pharmacists' Pharmaceutical Care for Hospitalized Patients with COVID-19: Recommendations and Guidance from Clinical Experience. *Res Social Adm Pharm.*, 2020; 20: S1551-7411, 30314.
- Aruru M, Truong HA, Clark S. Pharmacy Emergency Preparedness and Response (PEPR): a proposed framework for expanding pharmacy professionals' roles and contributions to emergency preparedness and response during the COVID-19 pandemic and beyond. *Res Social Adm Pharm.*, Jan., 2021; 17(1): 1967-1977.
- Paudyal V, Cadagon C, Fialova D et al. Provision of clinical pharmacy services during the COVID-19 pandemic: Experiences of pharmacists from 16 European countries. *Res Social Adm Pharm.*, 2021; 8: 1507-1517.
- Wang Ying, Yu Qian, Zhu Kun. Drug supply and pharmaceutical care management practises at a designated hospital during the COVID-19 epidemic. *Research in social and administrative pharmacy*, 2021; 17: 1978-1983.
- Wong J, Goh QY, Tan Z, Lie SA, Tay YC, Ng SY, et al. Preparing for a COVID-19 pandemic: a review of operating room outbreak response measures in a large tertiary hospital in Singapore. *Can J Anaesth*, 2020; 67: 732–45.
- John C. Hayden, Rebecca Parkin. The challenges of COVID-19 for community pharmacists and opportunities for the future. *Irish Journal of Psychological Medicine*, 2020; 37: 198-203.
- Piotr Merks, Marta Jakubowska, Ewelina Drelich et al. The legal extension of the role of pharmacist in light of the COVID -19 global pandemic. *Research in Social and Administrative Pharmacy*, 2021; 17: 1807-1812.
- Dalia Dawoud. Emerging from the other end: Key measures for a successful COVID-19 lockdown exit strategy and the potential contribution of pharmacists. *Research in social and Administrative Pharmacy*, 2021; 17(1): 1950-1953.
- Cathal A. Cadagon, Carmel M. Hughes. On the frontline against COVID-19: Community pharmacists contribution during a public health crisis. *Research in social and Administrative Pharmacy*, 2021; 17: 2032-2035.