

Implementation of Emergency GP Management of Patients during the Complete Lockdown Consequent to the COVID-19 Omicron Outbreak in Shanghai

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Abstract

It was implemented the most restrictive lockdowns ever since 1 April 2022 to control the omicron outbreak, seriously impacting the patients visit their GPs. We aim to present interim data on how the GP clinical management approach has been adapted during the first two weeks of this critical complete lockdown. The GP Department, Tongren Hospital, covering a population of ~700,000 in the Changning District, Shanghai, has been the only place able to provide consultations and prescribe medicines from the Tongren Pharmacy to these chronic illness patients *via* a limited number of volunteers exempt from lockdown. Consultations/interactions were increased by >4-fold since the beginning of the complete lockdown. In the event any emergency, the hotlines can be called for transporting to ER, but only to designated COVID-19 hospitals. We have managed our regular patients in a very satisfactory way under current severe lockdown circumstances. Our interim data may offer some useful information for GPs to handle similar situations in future as the pandemic continues to evolve.

Keywords: Complete lockdown • Omicron • GP emergency management

Introduction

The most recent outbreak of the Omicron strain of COVID-19 that has occurred in China during March/April 2022 has resulting in the most restrictive lockdowns of the pandemic, with China mandating a Zero Tolerance policy, including implementation in Shanghai progressively 1 April 2022, i.e. citizens are not permitted to leave their homes under any circumstances, only with the exception of special permit holder e.g. medical personnel, police, and some specific volunteers [1,2]. Consequently, the capacity of patients with chronic diseases to visit their GPs has been seriously impacted. We aim to present interim data on how the GP clinical management approach has been adapted during the first two weeks of this critical complete lockdown. Tongren is a tertiary hospital, covering an ~700,000 population. The GPs in Tongren Hospital practice as specialists in primary care, and also are responsible for supervising the >200 GPs in the 10 associated community clinics. Under normal circumstances, complex patients are referred from the community clinics to the GP Department within the hospital; whereas patients with a clear diagnosis and management plan are transferred back to the community clinics for routine outpatient management. Very complex patients can also be referred beyond the GP Department to specialists in specific disciplines such as internal medicine and surgery [3].

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Prior to this complete lockdown, chronic disease patients visited their GPs regularly. However, face-to-face visits were immediately suspended upon the implementation of the complete lockdown, substantially impacting the routine care of these patients. Thus, the pressing goal of our current practice as GPs is to manage these regular chronic disease patients smoothly and with as little disruption as possible, over this lockdown period.

The most fundamental challenge faced by the GPs associated with Tongren Hospital has been ensuring that patients were able to receive their regular medications. This has been achieved by identifying and communicating with those chronic disease patients who have detailed medical records in our electronic file system, to allow us to make arrangements for delivery of their regular prescriptions/medications *via* community volunteers (who are the only personnel able to move around the community, only for absolutely essential purposes). In cases where any doubts in management occurred, internet consultations were utilised to clarify the points raised. Since complete lockdown, approximately 80% of all “consultations” (any interaction been the GP Department and chronic disease patients) have been conducted indirectly *via* community volunteers, based on their routine prescriptions, sourced from their full electronic files in the GP Department, Tongren and dispensed from the Pharmacy, Tongren Hospital. Notably, medications are only available through the Tongren Hospital Pharmacy, since community Pharmacies were closed during the complete lockdown in the Changning District. The majority of the remaining 20% of these patients with chronic illness felt that their medical condition had changed, and undertook internet consultation with the GP Department, followed by delivery of prescribed medications *via* the community volunteers. To minimize potential viral transmission, where the GP Department, Tongren had been allocated an open-air area on the grassland in the front of the hospital to interact with the volunteers. Only patients who have a full electronic file in Tongren, including routine medications could access this facility. No online prescriptions were issued because there were no community pharmacies open. Furthermore, in the case of emergencies, urgent patients have been able to call a hotline to make a specific request to attending the ER of a COVID-19 designated Hospital (s), utilising specific ambulances. Tongren Hospital has a physically separate section of the hospital that is designated a COVID-19 hospital.

We sought to make an initial evaluation of the impact of the complete lockdown on the delivery of clinical care to chronic disease patients within the GP Department, Tongren Hospital. Thus, we compared the numbers of consultations within the GP Department for 15 days immediately prior to the lockdown to the 15 days post the complete lockdown (Table 1 and Figure 1). Surprisingly, by day 15 post-lockdown, patient “consultations”, mainly via the volunteers acting on their behalf in person, were increased >2-fold higher, compared to that prior to lockdown (overall, a daily average of approximately 1,500 vs. 700 prior to lockdown; (Figure 1). Specific increases were observed for the five major chronic diseases (hypertension, DM, cardiovascular disease, hyperlipidaemia, and insomnia), in addition to a general increase in other problems (Table 1).

Our explanation for this dramatically increased numbers of “visits” is that psychological stress/fear has been seriously increased by the lockdown, stimulated by uncertainties associated with the Omicron outbreak, aggravated by various sources of public information, circulating both within the official formal media and on social media, that have emphasised the potential unknown long-term complications and duration of the Omicron outbreak.

When individual chronic diseases are considered separately, it is intuitively understandable that there is a close linkage between stress and exacerbations

Table 1. The patients with different diseases consulted with GP prior to vs. post complete lockdown.

Diseases	Patients Number		P value
	Post	Prior to lockdown	
Hypertension	4204	1939	<0.0001
Diabetes	1602	792	0.1088
CHD	945	366	<0.0001
Hyperlipidaemia	651	312	0.1498
Insomnia	640	277	0.0062
Others	7458	4500	<0.0001
Total	15500	8186	-

of hypertension, cardiovascular disease and insomnia, likely to result in increased patient “consultations”. No significant difference of consultations for DM/hyperlipidaemia were observed between prior to and post the lockdown, which may be due to the short-term impact of stress associated with lockdown on these two diseases.

Notably, there was no significant difference in the number of the patients’ consultations during the first 5 days of lockdown between prior to and post lockdown, which may be due to patients being unprepared for the implementation of the new interim “consultation” process introduced to adapt to the crisis. However, between days 6 and 15 post-lockdown, the level of the patient “consultations” progressively rose to a level that on day 15 was >4-fold higher, compared to prior to lockdown, which may be partially due to a compensation for the initially missing consultations, as well as, the patients were concerned about the shortage of their prescriptions in the long-term. Weekends have not impacted the “consultations” numbers post lockdown, whereas prior to lockdown fewer consultations occurred over weekends (Figure 1A and 1B). This change may be partially due to the lack of a physical limitation for accessing “consultations” via volunteers post-lockdown. Notably, there was a dramatic increase in face-to-face consultations 4 days prior to the complete lockdown, which was due to implementation of a less restrictive “semi-lockdown” for 4 days prior to complete lockdown, stimulated patients to attend the GP Department, Tongren Hospital. Additionally, a quite large drop in “consultations” on day 13 post lockdown was associated with a severe storm (Figure 1A). Overall, the increased level of “consultations” may be due to both panic associated with the lockdown, coupled with the increased convenience for patients to be able to “order” medications via volunteers on behalf of the patients, instead of requiring patients to attend a clinic in person. However, the medium- and long-term impact of a dramatic reduction in in-person review of patients remains to be evaluated, particularly if the complete lockdown continues to be extended if there is a delay in the resolution of the Shanghai Omicron outbreak. On the other hand, at this point in time we have been unable assess the psychological and/or psychiatric status of these patients, due to no face-to-face interaction between patients and doctors being allowed, particularly since it is not possible to refer these patients to a psychologist/psychiatrist under the current absolutely complete lockdown conditions.

Conclusion

In conclusion, we have managed our regular patients in a very satisfactory way under current severe lockdown circumstances. Our data may offer some useful information for GPs to handle similar situations in future as the pandemic continues to evolve.

Conflict of Interest

The authors declare no conflict of interest.

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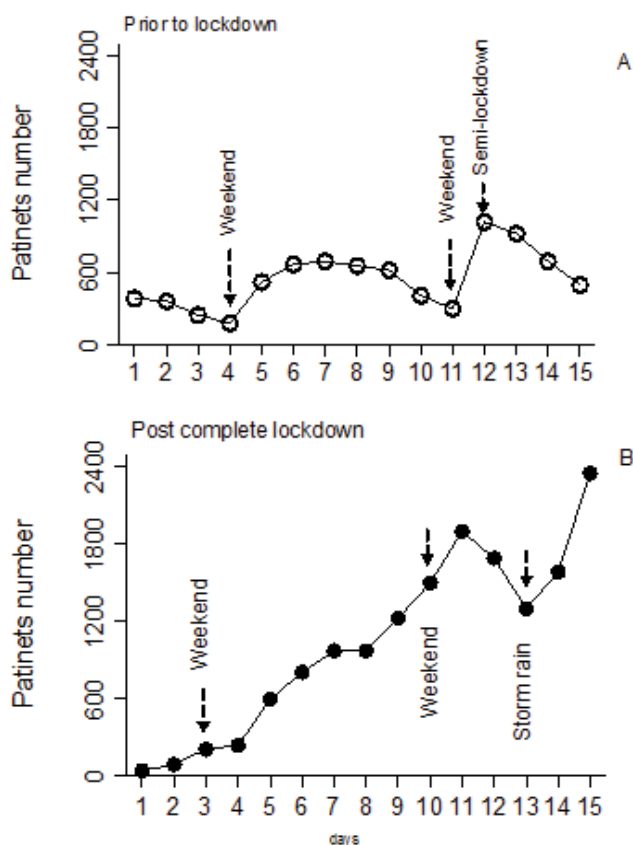


Figure 1. The patients consultation numbers prior to (A) and post complete lockdown (B).

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