

# SMART USE OF A WEB-BASED QUEUING SYSTEM TO FACILITATE THE WORKFLOW OF ENHANCED TRIAGE, SEGREGATION AND CONSULTATION ARRANGEMENT IN KEC GENERAL OUT-PATIENT CLINICS (GOPCS) DURING THIRD WAVE OF COVID-19 OUTBREAK

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## INTRODUCTION

- To screen out potential COVID-19 patients, KEC GOPCs had adopted an enhanced triage, segregation and consultation arrangement as an enhanced infection control measure under Emergency Response Level since 25/2/2020.
- Patients with fever or acute respiratory symptoms as screened by our triage stations or doctors of ordinary consultation rooms will be directed to special segregation waiting areas, and they will then be seen by our assigned doctors in fever consultation rooms.
- Communications between consultation rooms, treatment rooms and registration counters were relied on phone calls. This communication method was overwhelmed in some clinics by the sudden surge of patients with fever or acute respiratory symptoms during the third wave of COVID-19 outbreak in Hong Kong in July 2020.
- Frontline doctors expressed their consultations were heavily disturbed by excessive number of phone calls. Frequent phone calling also caused additional workload to nursing and clerical staff.

## METHOD

- A web-based queuing system was set up since 20/7/2020.
- The queuing system could be accessed using Internet Explorer at all intranet workstations in the clinics.
- Frontline doctors, nurses and clerical staff could communicate on which patients were triaged to fever consultation room by inputting text to the queuing system.
- The queuing system was coded in HTML, JavaScript and ASP.NET.

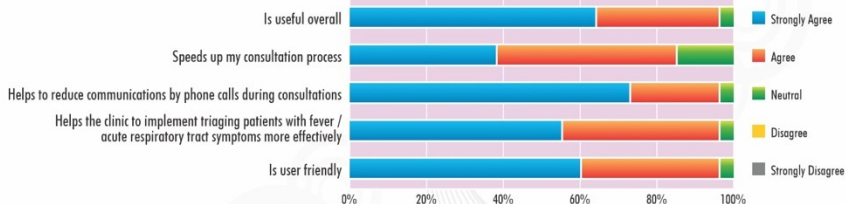


## RESULTS

- The queuing system was rolled out at Mona Fong GOPC on 21/7/2020 and Lam Tin Polyclinic GOPC on 23/7/2020. The need of using phone calls for communication was drastically decreased.
- Online survey was distributed to frontline doctors, nurses and clerical staff from 26/11/2020 to 6/12/2020 for evaluation.
  - The response rate was 80.6% (25/31).
  - The queuing system was positively rated by our frontline users.
    - 96.0% users strongly agreed or agreed the system helped the clinics to implement triaging patients with fever and acute respiratory tract symptoms more effectively.
    - 85.7% users strongly agreed or agreed their consultation process was speeded up after using the queuing system.
    - 96.0% users strongly agreed or agreed the queuing system was useful.



Results of online survey to frontline staff on web-based queuing system



## CONCLUSION

- The web-based queuing system was a useful tool to facilitate workflow for triaging patients with fever or acute respiratory symptoms in our GOPCs.