Optimising Specialist Outpatient Clinic using SmartView™ with Safe Distancing Compass

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Chin Lee Lian, Oh Hong Choon, Joan Tan Shao Xuan, Narayan Venkataraman, Allan Koa, Tan Li Shan, Pang Huiming, Irene Ang

Introduction

Specialist Outpatient Clinics (SOCs) had to comply safe distancing measures prescribed and at the same time cope with business-as-usual (BAU) workload. A number of patient seats had to be left empty to comply with safe distancing measures and this resulted in potential insufficient seating and standing crowd issues in the SOCs.

Objectives

1. Determine the maximum appointment threshold (Safe Distancing Compass) each clinic and session could accommodate while complying with safe distancing measures.
2. Develop a smart visual tool (SmartView™)that helps teams on the ground to monitor the situation closely and be able to respond to any surge situation quickly, e.g. deploy safe distancing ambassadors to clinics with anticipated crowds.

Methodology

1. Safe Distancing Compass

a. Optimising the number of seats each clinic could accommodate (after safe distancing) was first derived.
b. Average number of accompanying visitors ascertained from observations over a period of time at the SOCs.
c. Thereafter, historical appointment workload and corresponding number of inflight patients was derived.

Each clinic has its unique number of appointment threshold as it flow rate is different.

2. SmartView™

With the appointment threshold derived, a dashboard was developed to provide a helicopter view of the risk level of safe distancing violation for all the SOCs.

E.g. Traffic light design and indications

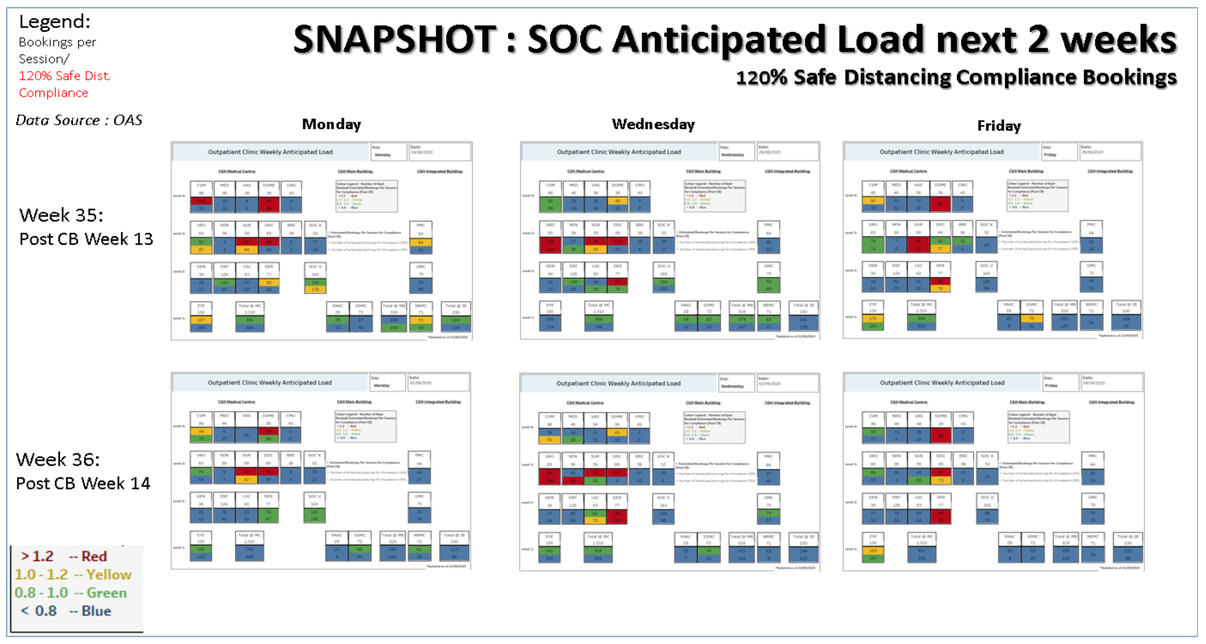
Red = >120% of appt threshold -> high risk of standing crowd
Yellow = 100%-120% of appt threshold -> some risk of standing crowd
Green = 80%-99% of appt threshold -> low risk of standing crowd
Blue = <80% of appt threshold -> minimal risk of standing crowd

Example of Safe Distancing Compass: Clinic 2D

Max no. of seats (after safe distancing) = 34
Avg no. of accompanying visitor = 1.6 per patient
Derived appointment threshold (100%) = **63**

Regular validation using checklists from ground staff (i.e. if standing crowds observed against appt threshold set) and then recalibrated.

Example of SmartView™



Results

- ✓ With the derived optimal number of appointments, doctors also load balanced clinic appointments across the sessions to optimize the maximum number appointments per session
- ✓ The traffic light design of the SOC SmartView™ visualisation facilitates instant identification of clinics in the various zones
- ✓ Action could be taken on Red zones are clinics where safe distancing ambassadors would be deployed while the Blue zones are clinics with capacity to take on more appointments

Conclusion

Benefits of the SmartView™ include:

- ✓ Enable CGH SOC to comply to safe distancing measures as we cope with BAU
- ✓ Optimise clinic load without compromising safety
- ✓ Rationalise limited manpower resources for crowd control by right siting and deploying them at high risk clinics

The SmartView™ enables care teams on the ground to have a quick overview of the SOC workload for decision support on a day to day basis. Complying with the safe distancing measures is imperative as it protects not only the patients but the care providers, which in turn prevents the spread of COVID-19. SmartView™ allows us to monitor the situation and adjust to changing requirements while meeting healthcare demand in a sustainable manner.