



Singapore Healthcare Management 2016

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Tweaking Laboratory Appointment Slots

Background

- Appointment system for laboratory (lab) was first introduced in Feb 2015 together with the launch of consultation appointment system in SingHealth Polyclinics. Patients who require lab test prior to consultation on the same day will need a link appointment of lab to doctor consultation.
- The lab appointment slots were set at 15min blocks starting from 7.45am. The consultation appointment slots on the other hand were set at 5 or 10mins block for each slot.
- At appointment booking, it was difficult to find a link appointment with accordance to the business rule of a 30 min interval between the lab appointment and consultation. The system will propose a much later lab and doctor appointment slot if there is no match.
- To work around this issue, staff wasted time to refine the search criteria to 15mins, 20mins or 25mins before the doctor appointment. However, by refining the search criteria, staff were not following the business rule.
- As patients' queue number follows consultation appointment timing, with the mismatch of link appointments, the queue numbers for the same lab appointment time were in random sequence and far apart resulting in many patient complaints due to confusion and interruptions to the lab workflows.

Aims

- To allow easier matching of the lab and consultation appointment slots.
- To comply with the business rule of 30 intervals between lab and consultation appointment slots.
- To reduce the congestion and complaints at lab arising from the introduction of appointment system.

Methodology

- Team gathered feedback from lab and ground staff and analysed the reasons why the queue numbers were random and far apart.
- Team met and discussed the possible controls that can be introduced to improve the situation. Solutions were discussed and agreed upon with the various stakeholders.

Interventions

- With effect from Sep 15, the lab appointment slots were changed from 15mins block to 5 mins block with the same number of appointments slots spaced out. E.g. 15mins block with 15 concurrency slots is now re-organised into three 5mins blocks, each with 5 concurrency slots.
- Additional lab appointment slots were created from 7.30am to 7.45am when lab agreed to start earlier with staggered manpower roster.

Results

- Patient appointments were more spaced out and not clustered up at each 15mins block resulting in less congestion at the lab.
- Easier to schedule linked appointment for lab and consultation with the same business rule of 30 mins apart.
- Q numbers were not too far apart as the appointments are more consistently matched with the same business rule reducing the number of complaints at the lab.

Conclusion

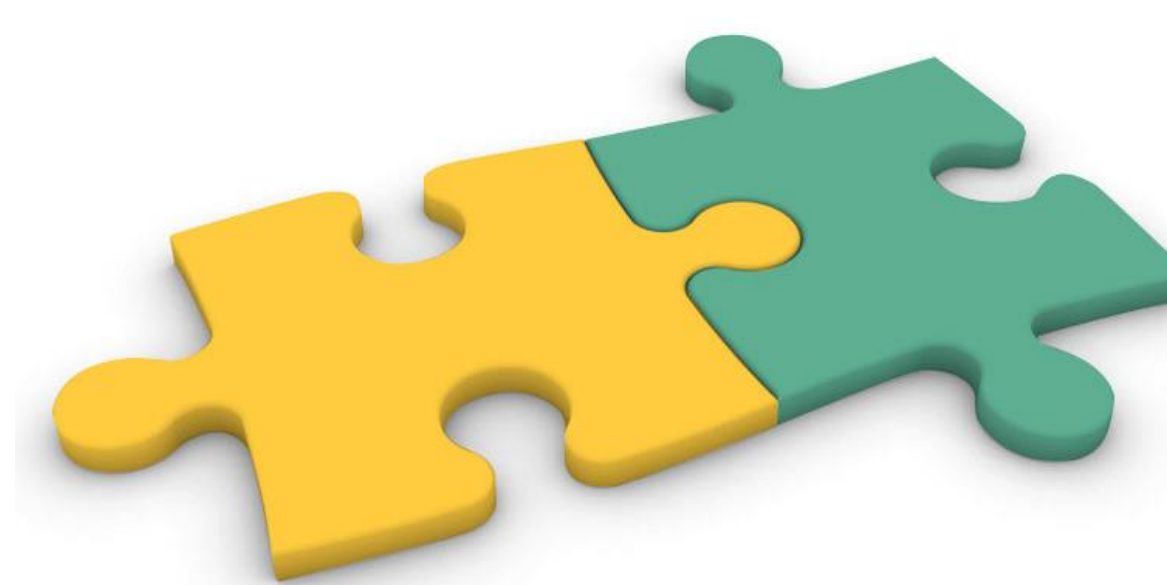
- A simple tweak in the appointment time slots set up helped in managing the crowd and improve patient experience. It is important to plan the appointment time slots carefully to smoothen the flow and avoid over-crowding.
- However, we require other measures such as sufficient lab staff to match the workload, clearer queue display and patient education to complement for a smoother flow at the lab.



Start Time	End Time	Duration (mins)	Total Slots
745	800	15	3
800	815	15	15
815	830	15	15
830	845	15	15
845	900	15	15

Start Time	End Time	Duration (mins)	Total Slots
730	735	5	2
735	740	5	2
740	745	5	2
745	750	5	2
750	755	5	5
755	800	5	5
800	805	5	5
805	810	5	5
810	815	5	5
815	820	5	5
820	825	5	5
825	830	5	5
830	835	5	5
835	840	5	5
840	845	5	5
845	850	5	5
850	855	5	5
855	900	5	5

Example of lab appointment slots setup before intervention



Example of lab appointment slots setup after intervention

After

More matching appointment slots

