



Introduction

Linked Appointment system for laboratory (lab) and consult was launched in Dec 2016 with the objective of reducing patient's waiting time for appointment making over counter. However, many patients were still unhappy with the delivery of lab services eg. long waiting time despite of having appointments, insufficient appointment slots in the morning especially for fasting patients etc. The team sought to listen to the patients' voice and conducted Kano analysis to address the gaps.

Aim:

1. Reduce fasting period to **not more than 12 hours for ALL patients with fasting blood**
2. Reduce the waiting time for lab services to **not more than 15 minutes for 90% of patients**
3. Improve patients' experience of waiting for their queue number by **managing the predictability of the queue number flow**

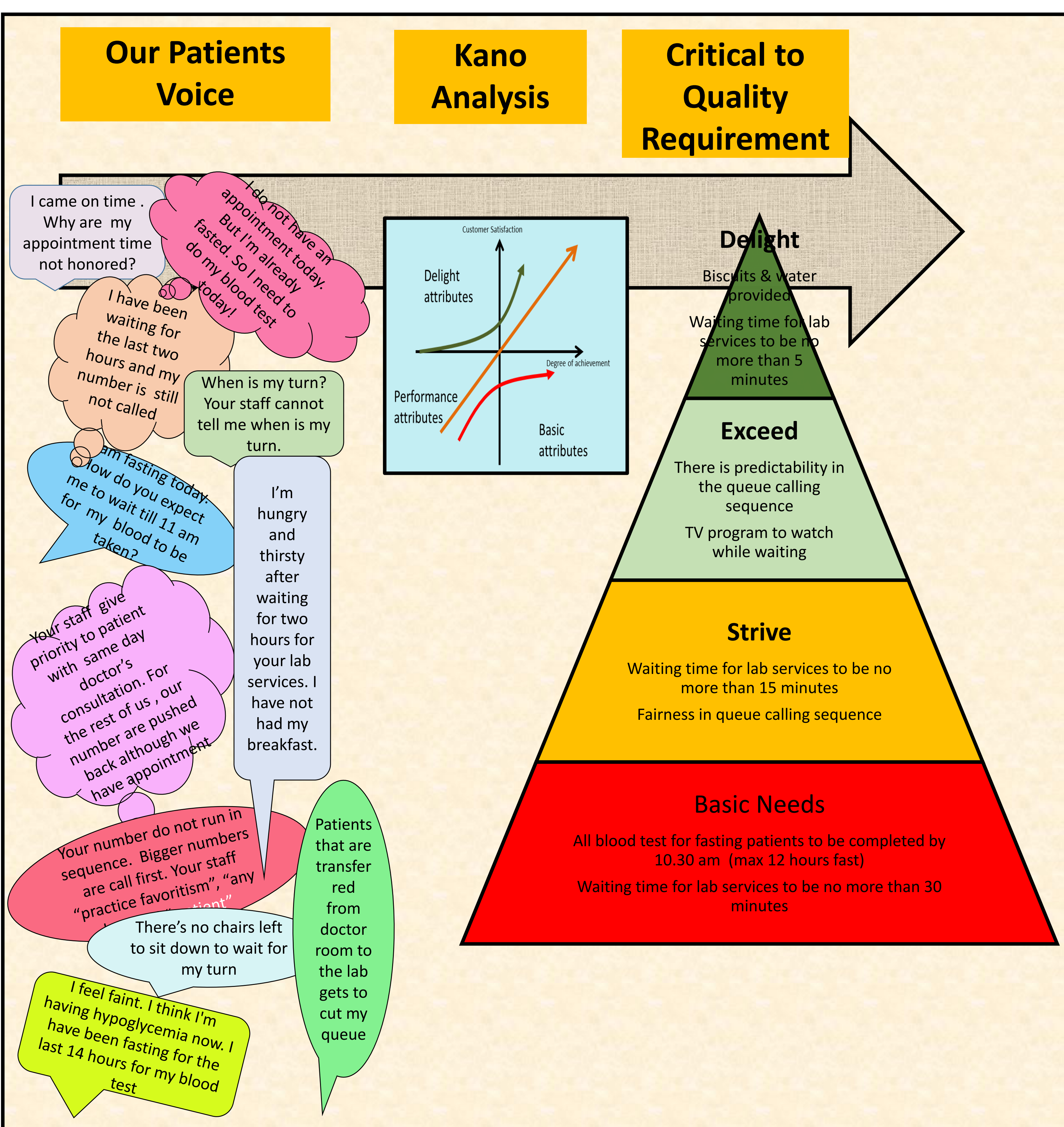
Methodology :

Our **PATIENTS VOICES** define our **CRITICAL TO QUALITY REQUIREMENT – KANO ANALYSIS**

Voice of customer	Analysis of existing workflow (Data analysis – 6 months lab queue report to study trend and patterns)	Critical to quality requirement
Very late appointment slots given for fasting patients (excessive fasting for patients)	<ul style="list-style-type: none"> Appointment slots were reserved for fasting patients between 7.30-10am only, which were insufficient to meet their needs. Non fasting patients and walk in patients were force/ double booked into early morning (7.30 to 10 am) slots due to insistent patients Though more slots were created to meet patient demands, these slots were not matched or tallied against total lab capacity resulting in load imbalance between morning and afternoon. 	<ul style="list-style-type: none"> Increasing capacity for fasting patients Matching appointment slots to actual lab capacity Creating buffer in appointment slots based on 6-months lab data analysis and queue report to accommodate: <ul style="list-style-type: none"> - Actual turnaround time - Transferred /P series cases - Second venipuncture
Long waiting time despite having appointments	<ul style="list-style-type: none"> Appointment slots did not match lab resource capacity. Excessive appointment slots were given out especially from 8 to 10 am No buffer in the appointment slots for cases transferred from doctors (i.e. patients without lab appointment) Insufficient time allocated to each slot- slot was planned with 5 minutes interval while patient turnaround time was 6 minutes No slots buffered for patient returning for second venepuncture (For OGTT) 	<ul style="list-style-type: none"> Enforce <u>no</u> force/ double booking of slots Staff trained to educate patients that lab service is mainly by appointment Staff trained to educate patients to arrange for afternoon appointments
No predictability in the sequence of queue numbers, resulting in the patients' perception of their queue being cut by others.	<ul style="list-style-type: none"> No differentiation in counter serving L series number (with no doctor consultation) and 1000 series number (with same day doctor consultation) No patient education that L series and 1000 series were actually based on patient's appointment time No buffer in the appointment slots for cases transferred from doctors room (i.e. patients without lab appointment) and P series cases. 	

Interventions

- Non fasting patients to be shifted to afternoon slots
- Appointment slots reserved for fasting patients only increased to 7.30 to 10.30 am
- No reserving of slots for walk in patients /no force booking/double booking allowed
- Appointments slots to reflect actual capacity
- Buffer created in appointment slots
- 3 counters to serve L series number and 2 counters to serve 1000 series number. This give the appearance that both numbers are running concurrently in sequential fashion.
- Future plan – Our new lab (will be ready in Aug 2017) to have Wellness TV and water / snacks facility



Appointment Slots Redesign

Time	No. of slots	Number of patients waiting	Time available slots	Number of patients waiting
07:30-08:00	10	10	10	10
08:00-08:30	10	10	10	10
08:30-09:00	10	10	10	10
09:00-09:30	10	10	10	10
09:30-10:00	10	10	10	10
10:00-10:30	10	10	10	10
10:30-11:00	10	10	10	10
11:00-11:30	10	10	10	10
11:30-12:00	10	10	10	10
12:00-12:30	10	10	10	10
12:30-13:00	10	10	10	10
13:00-13:30	10	10	10	10
13:30-14:00	10	10	10	10
14:00-14:30	10	10	10	10
14:30-15:00	10	10	10	10
15:00-15:30	10	10	10	10
15:30-16:00	10	10	10	10
16:00-16:30	10	10	10	10
16:30-17:00	10	10	10	10
17:00-17:30	10	10	10	10
17:30-18:00	10	10	10	10
18:00-18:30	10	10	10	10
18:30-19:00	10	10	10	10
19:00-19:30	10	10	10	10
19:30-20:00	10	10	10	10
20:00-20:30	10	10	10	10
20:30-21:00	10	10	10	10
21:00-21:30	10	10	10	10
21:30-22:00	10	10	10	10
22:00-22:30	10	10	10	10
22:30-23:00	10	10	10	10
23:00-23:30	10	10	10	10
23:30-24:00	10	10	10	10

Lab

Counter	Now Serving
A	P022
B	1321
C	2334
D	L032
E	3213
F	4321

Missed Queue

L234 1235 1123 P031 1105 1888 L333 3232 L098 4523

Please approached counter E if you have missed your queue

Results (3months later from 14 Feb 2017)

- All fasting patients completed their fasting blood test by 10.30 am (Maximum fasting period =12 hour) on 15 Feb 2017
- 90th Centile waiting time for lab services is 8 Mins
- Number of patient complaints collated by Patient Relation Department (HQ) drops by 92%

Conclusion

By listening to our patients and prioritizing their needs through Kano analysis, we are able to not only meet but exceed patients' expectation, making our patients' experience at Bedok Polyclinic Lab a delightful one.