Promote screening and early detection of metabolic syndrome in patients with schizophrenia

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INSTITUTE of MENTAL HEALTH

National Healthcare Group — Adding years of healthy life

Mission Statement

To improve complete screening for metabolic syndrome in all patients in Annual Review Clinic for with a diagnosis of schizophrenia without pre-existing diagnosis of Diabetes, Hypertension or Hyperlipidaemia managed by Community Psychiatric Department at Community Wellness Clinic, Queenstown IMH over the next 6 months (Oct 2015 to Apr 2016) from 3 per cent to 50 per cent

Team Members

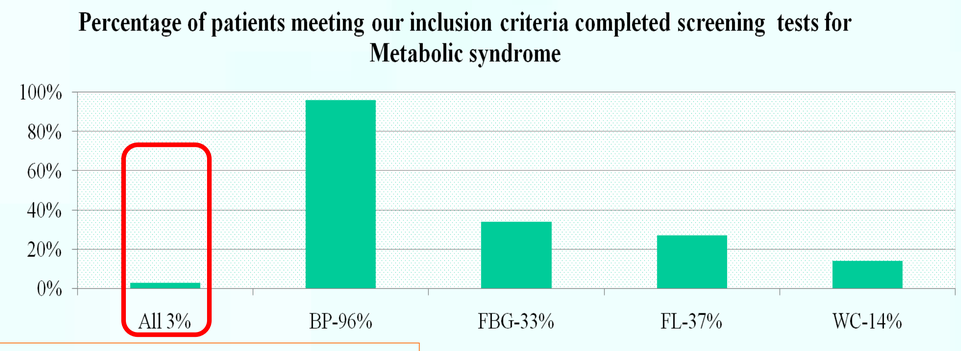
	Name	Designation	Department
Leader	Dr Poornima Gangaram	Consultant	Community Psychiatry
Members	Ms. Reena Poo	Case Manager	
	Nurul Shireen	Executive (CWCQ)	Operations
	Ms. Vicki Lee	Senior Staff Nurse	Community Psychiatry
	Mr. Chee Kok Seng	Senior Pharmacist	Community Psychiatry
	Ms. Lalitha	Health Care Assistant	IMH
	Dr. Lee Yu Wei	Medical Officer	Community Psychiatry
Sponsor	Dr Lee Cheng	VCMB	Community Psychiatry
Facilitator	Susan Lim	Associate Director	Operations

Evidence for a Problem worth solving

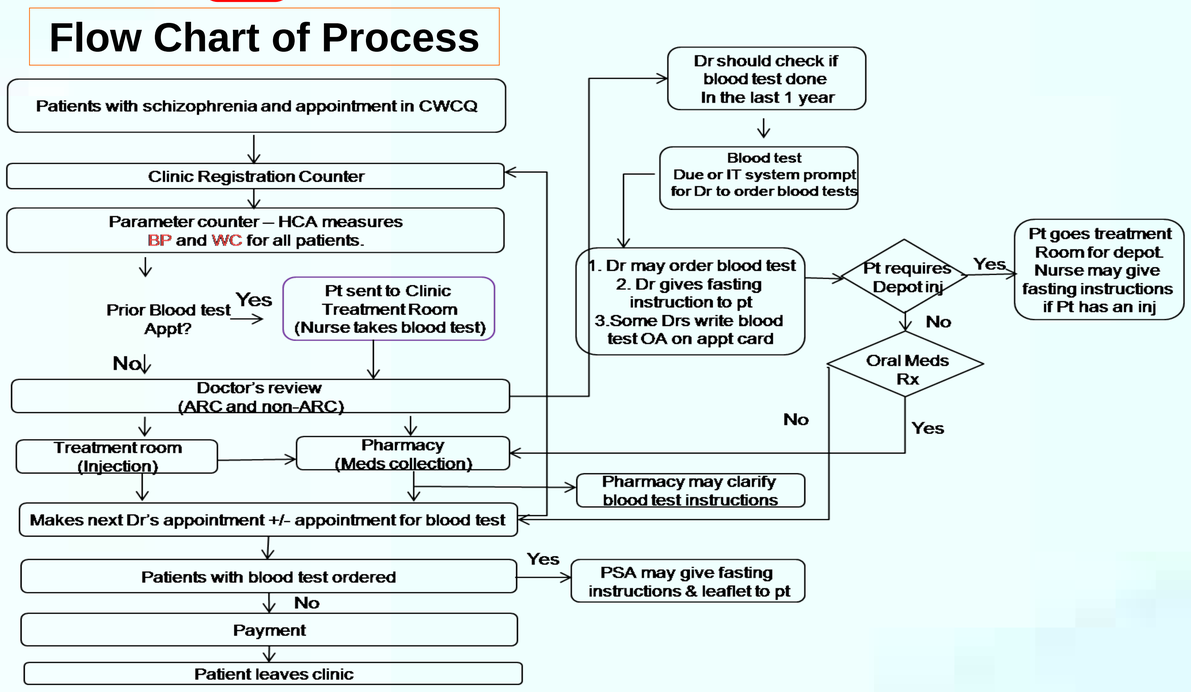
Metabolic syndrome affects 20-25% of the world's population

- Associated with ↑ risk of complications like stroke, heart disease
- Twofold increase in likelihood of death
- Patients with schizophrenia are found to have ↑ insulin resistance, impaired glucose tolerance and ↑ intra-abdominal fat vs. controls (Papanastasiou 2012), associated with ↑ risk of diabetes mellitus by 2-3 times independent of anti-psychotic drug use (de-Hert 2009)
- Anti-psychotic medications contribute to ↑ risk of metabolic syndrome.

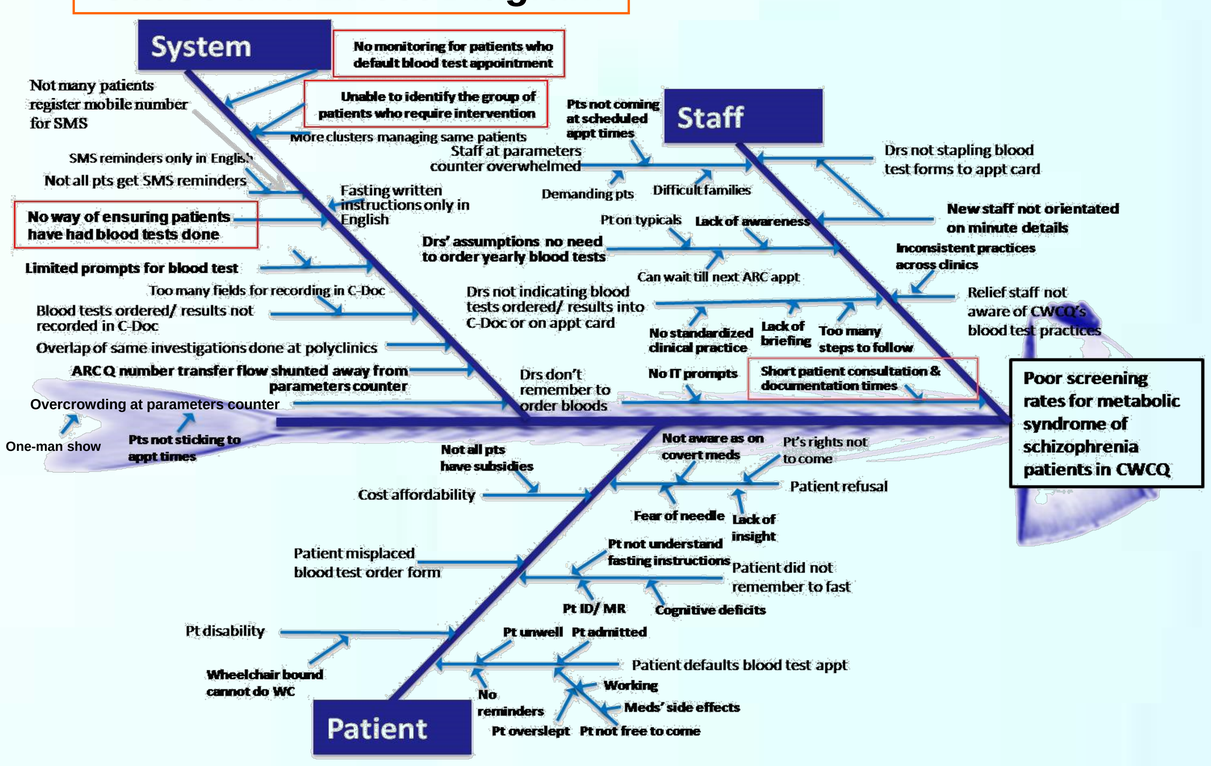
Current Performance of a Process



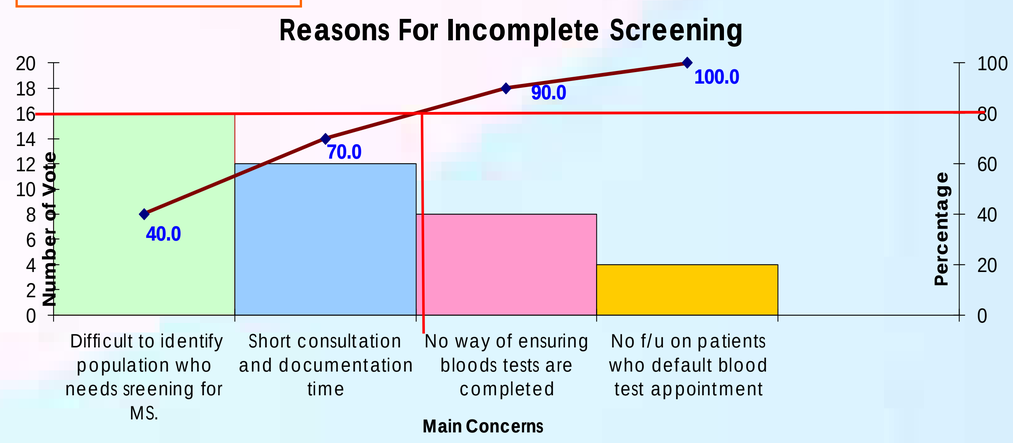
Flow Chart of Process



Cause and Effect Diagram



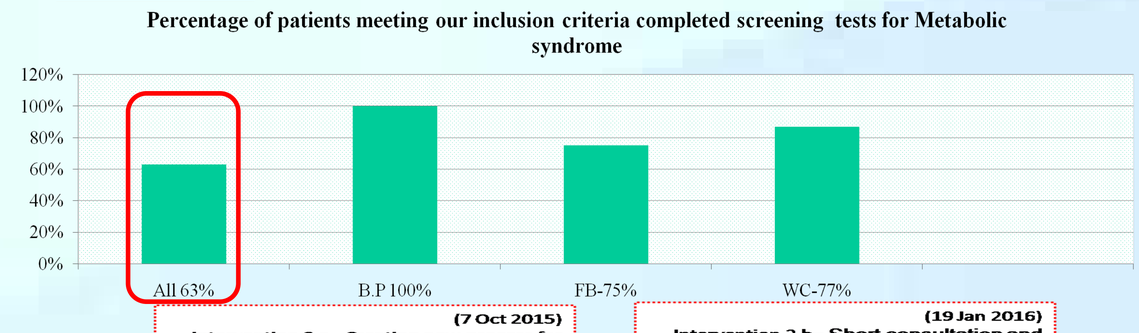
Pareto Chart

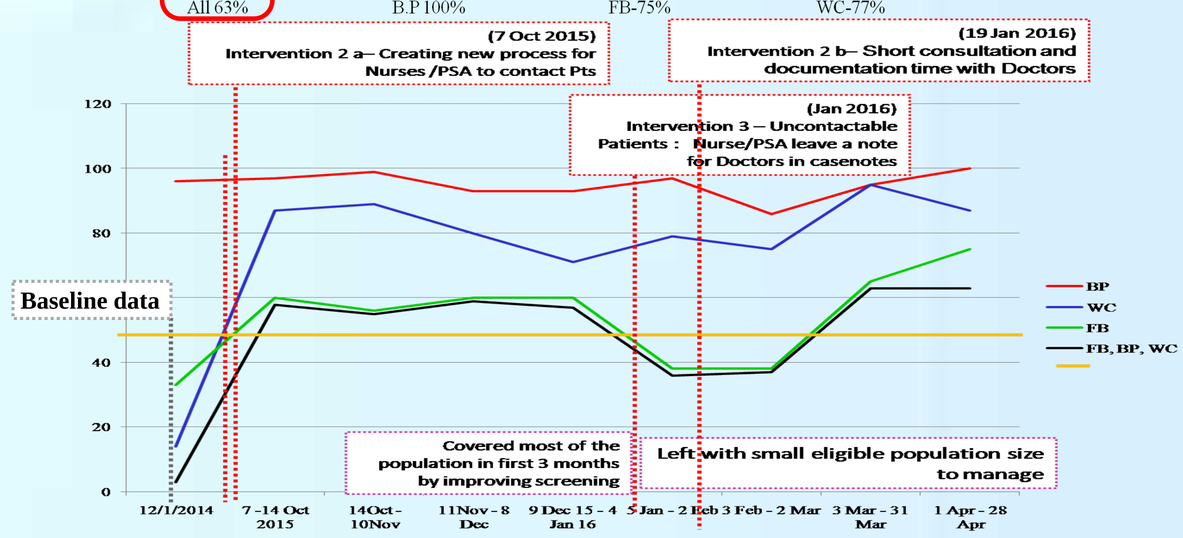


Implementation and Problems Faced

CAUSE / PROBLEM (refer to Pareto Chart)	INTERVENTION	PDSA cycles
1. Waist circumference done only at ARC	Doctors to write WC on appointment card for patients meeting inclusion criteria.	**PDSA 1a.** Doctors in CWCQ informed to write WC on the card. ➔ **No difference at all.**
	Waist circumference to be done on most visits and to be done following Blood pressure measurement	**PDSA 1b – 15 Feb 2016** PSAs not expected to measure WC on busy days since WC does not change and it is recorded every 6 months; good if staff could record WC when BP is taken (as a CPIP intervention) ➔ **Study – on sample size-significant improvement in waist circumference measurement leading to improvement in measuring all four parameters.**
Phase 1 CPIP	Creating a visual prompt explaining ill-effects of MS – to improve screening for Blood tests.	**PDSA 2a – 8 Mar 2016** Further RCA was done as there is no improvement. Patients have long TCU timeframe. When patients come for blood tests, if blood test has been ordered, intervention is not working.
	Education and informing doctors within CWCQ to pay attention to visual prompts.	**PDSA 2b – 10 Apr 2016** To wait ≥ a month to assess effectiveness of intervention (bearing in mind long TCU timeframe); to capture ordered blood tests ➔ **Improvement is in progress-Sustainable in the long run**
2. Difficult to identify patients	Obtain list of patients with inclusion criteria from ARC register by contacting IPACE coordinator-Ms. Esther. - Tidy up patient list - Get hold of future appt/date/time to target patients eligible for metabolic syndrome	**PDSA 3a.** Contacted IPACE coordinator by phone and email (31 Aug 2014) ➔ **Conclusion: Retain patient list, need to tidy up** **PDSA 3b.** Nurse/PSA to look through electronic case notes for all patients in the list. ➔ **Conclusion: Nurses not required to input manually for all patients (exclusion criteria)**
Phase 2 CPIP		
3. Short consultation and documentation time with Doctors	To work on the patients meeting the inclusion criteria from the list. PSA will usually call patients 3-5 days in advance Please refer to the intervention steps detailed in previous slides.	**PDSA 4a.** Nurse/ PSA delegated to call patient from list at least 3 days in advance from 7th October 2015 – Problem: Not in chronological order; causing delays in calls ➔ **Conclusion: To arrange patient list in chronological order by appt date**
4. Between 25% -40% of patients were not contactable	Nurse/PSA leave a note for doctors in case notes for (i) Educating patients (ii) Ensuring blood tests are ordered for the next appointment	**PDSA 4b – 19 Jan 2016 onwards** Nurse to leave a note for doctor to request blood tests for next appointment. ➔ **Conclusion: To continue to document in case notes and to monitor if doctor has taken action**

Results





Cost Savings

Prevention of diabetes or delaying the onset of diabetes/hypertension/hyperlipidaemia and associated complications

- Reduces medical/insurance costs
- Economical savings for institution/government

Strategies to Sustain

- Nurse/PSA to continue working on patient master list
- Nurse/PSA will book appointments in SAP for next due date to ensure the parameters will done on a yearly basis
- List to be updated on a monthly basis