



# Singapore Healthcare Management 2016

# Improving Safety & Experience for Patients with High Blood Pressure at DMC Level 4 Clinic

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## BACKGROUND

Diabetes and Metabolism Centre (DMC) Level 4 sees patients who are referred to Internal Medicine for consultation and treatment and one common condition managed by the Internal Medicine physicians is **high blood pressure**, also known as **hypertension**.

The more serious cases of this common chronic condition require close monitoring and long term treatment. Blood pressure, when it is too high and left uncontrolled, can cause serious **damage to vital organs** like heart, arteries, brain and kidneys leading to **Stroke, Heart Attack, Aneurysm and Kidney Failure**, which are all life threatening. Therefore, it is of utmost importance that patients with alarmingly high blood pressure be treated immediately and monitored closely when they arrive at the clinic.

## AIMS

- To improve safety for patients who require immediate treatment and close monitoring for high blood pressure (BP)

## METHODOLOGY

**FEEDBACK** was received from Dr Andrew Ing, who expressed concern over patient safety when he observed that there was no close monitoring and immediate treatment for patients with high blood pressure who may require admission.

A **CROSS-FUNCTIONAL TEAM** comprising stakeholders from outpatient operations, pharmacy, clinic ancillary staff, a nurse and Dr Ing was immediately formed to review the patient care process.

The team **ANALYSED** the feedback through investigation, interviews with various stakeholders involved in the patient journey and observation of current practices in the clinic. **2 KEY ISSUES WERE IDENTIFIED:**

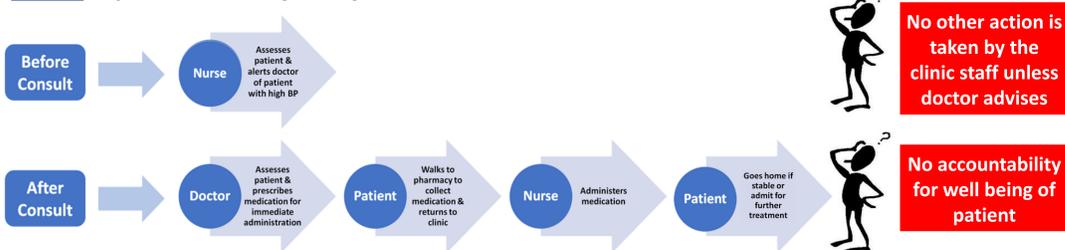
- Patients who require immediate and urgent treatment will be prescribed medication by the attending physician. The medication needs to be procured from the outpatient pharmacy at Level 1, which requires the patient to travel from Level 4 to Level 1 and back to Level 4, which can take as long as 30 to 40 minutes. These patients are at risk of collapse and physicians have advised against them travelling to and from the clinic and the pharmacy.
- Patients with abnormally high blood pressure need to be monitored closely in case of collapse or in case they require immediate admission for further treatment. However, in the outpatient setting, patients are generally regarded as well and not in critical condition. Hence, there was a lack of proactive monitoring and awareness of clinic staff after patient's blood pressure readings have been highlighted to the physician.

Through **PROCESS REVIEW** and **BRAINSTORMING**, the team put in place a workflow to ensure timely and appropriate intervention for patients who present with abnormally high blood pressure.

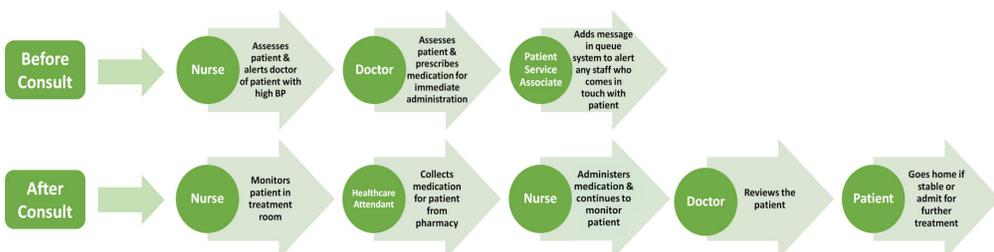
## SOLUTION

**Implement a standard workflow to manage patients with high blood pressure**

### Before implementation of workflow...



### After implementation of workflow...



Arrangement with the pharmacy for the clinic healthcare attendant to collect medication on behalf of Patient



Close monitoring of Patient by a nurse in the treatment room who will immediately escalate to the attending physician if patient's blood pressure does not come down

## Educate clinic staff about high blood pressure

About 70% of the staff in the clinic are non-nursing staff without extensive knowledge on the conditions and types of patients who visit the clinic. In-service training sessions were conducted to educate the staff on the potential impact of abnormally high blood pressure and the importance of monitoring these patients to ensure their safety and well-being.

- To ensure that patients with high blood pressure are monitored closely

## RESULTS

### Safe Care for Our Patients



With the workflow in place, it leaves no doubt to all stakeholders in the clinic on the immediate action that needs to be taken. It avoids delay in care and treatment to the patient that can occur due to uncertainty among the staff on what to do when they encounter a patient with unusually high blood pressure.

Patient safety is not compromised as our patients are assured that we have a workflow in place to ensure their safety, hence reducing their anxiety about their condition.

### Proactive Care by Our Staff



Clinic staff are more observant and show more awareness of the situation, especially of patients at the clinic waiting area. With more clinical knowledge and better understanding of the conditions of our patients, staff become more vigilant while performing their daily assignments at their respective stations.

Staff learnt to proactively seek out patients who look unwell or may be in need of help before patients approach them.

### Physicians Assured that Patients are Safe



Physicians are assured that their patients are safe and well cared for while they continue their consultations with other patients. The new workflow requires patients to be monitored in the treatment room by a staff nurse. This allows the doctors to focus on the clinic session, knowing that they will be informed when their patients require further intervention.

The multi-disciplinary collaboration helped establish a close partnership among all stakeholders involved in patient care, with each having a clear understanding of the others' role and actively carrying out his or her part in ensuring that our patients receive prompt, coordinated and safe care.

## CONCLUSION

High blood pressure is a common illness, especially among the elderly. However, most people, even the patients themselves, may not be aware of the serious consequences and potential complications of the condition.

Feedback from a concerned physician, with the clinical and patient safety issues thoroughly explained, started a chain of action that led the implementation of a standard workflow and education to clinic staff.

Action was taken immediately as patient safety is a prime concern and all stakeholders agreed that the project has to be given top priority before any patient has his or her safety compromised. The workflow was implemented within 2 weeks of the feedback, including the time taken to brief the clinic staff.

A simple workflow assured physicians, clinic staff and our patients that we are ready for potential complications that may arise. The initiative is also aligned with our organisation's drive to **Target Zero Harm** - the goal we must aim for in ensuring our patients receive the safest care.

