Heart Failure Patients At The Heart Failure Clinic

To Improve Influenza Vaccination Rate Among Patients with Chronic Heart Failure

**INTRODUCTION**

- Annual influenza (flu) vaccination for patients with chronic heart failure (HF) is a Class I recommendation according to international guidelines and Singapore's Ministry of Health.
- In a self-controlled case series study by Mohseni, et al (Eur Heart J 2017; 38:326-333), among 59,202 HF patients, influenza vaccination was associated with a lower risk of hospitalization due to cardiovascular disease (0.73 [0.71, 0.76]).
- Influenza vaccination has been associated with a reduction in all-cause mortality among HF patients [hazard ratio: 0.81 [0.67 to 0.97]; p = 0.015], (Vardeny O, et al. J Am Coll Cardiol HF 2016;4:152–8).
- In a meta-analysis, influenza vaccination was also associated with a lower risk of major adverse cardiovascular events, the greatest benefit being seen among patients with the highest risk and more active coronary disease. (Udell JA, et al. JAMA 2013;310:1711-1720).

**THE PROBLEM**

- Influenza vaccination rates among chronic heart failure patients at our institution had been low.
- Between August to October 2016, the proportion of HF patients who had received influenza vaccination in the previous 12 months was only 18%, significantly lower than other countries such as the United States (55%) and Great Britain (77%). (Vardeny O, et al. J Am Coll Cardiol HF 2016;4:152–8).
- This could be attributed to several factors including lack of awareness of guideline recommendations for influenza vaccination, skepticism regarding the benefits of influenza vaccination and absence of a comprehensive workflow to identify patients who had not been vaccinated.
- Therefore we embarked on a clinical quality improvement project to improve the influenza vaccination rates among our HF patients.

**MISSION STATEMENT**

- To increase influenza vaccination rate among patients with chronic heart failure managed at the Heart Failure Clinic, National University Hospital, Singapore, from 18% to 35% or more within 6 months.

**PROBLEM ANALYSIS: GAP ANALYSIS**

**INTERVENTIONS**

1. Educate doctors on flu vaccination process via education sessions
2. Creation of “Flu jab” tags as reminders in Heart Failure Clinic
3. Counseling by HF nurse before patient’s consultation with the doctor
4. Ensuring adequate supply of flu vaccine. Measures to prevent this include regular checking of vaccine stock and placing orders well ahead of time.
5. Tracking and updating patients’ flu vaccination status before every clinic session.

**RESULTS**

**CONCLUSIONS**

- Through simple measures such as education, tagging of patients who require influenza vaccination and regularly updating patients’ vaccination status, we were able to significantly increase the proportion of our heart failure patients who received flu vaccination.
- To sustain the gains from this project, we will conduct regular audit and tracking of influenza vaccination among our heart failure patients, and frequently remind our doctors to propose influenza vaccination to their patients with chronic heart failure.
- We hope to convince the substantial proportion of patients who declined vaccination to accept the vaccine through education.

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