Utilization of anticoagulant in patients with atrial fibrillation in a local stroke unit: Gaps for pharmaceutical care & Challenges Ahead
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Introduction
Atrial fibrillation increases the risk of ischemic stroke by 5 times. Anticoagulation is an important measure to prevent stroke in these patients. Pharmacist is part of the multi-disciplinary stroke team in Caritas Medical Centre (CMC). In acute stroke unit (ASU), the pharmacist shares the role of medication reconciliation, medication review and anticoagulation discussion or counselling. The pharmacist also works with neurologist and stroke nurse at the post-discharge stroke integrated clinic (MIC) for medication adherence and counselling.

Objectives
1. To recognize the service gaps and challenges with anticoagulants in acute stroke patients. 2. To evaluate pharmacist’s impact on the discussion of anticoagulation in patients with atrial fibrillation in a local stroke unit. 3. To evaluate patients’ adherence on anticoagulants after pharmacist counselling.

Methodology
Patients who had existing or newly diagnosed atrial fibrillation, and were hospitalized in ASU of CMC from Jan 2016 to Nov 2017 with a diagnosis of stroke were included. Subjects were evaluated on 1) anticoagulation before admission, 2) anticoagulant prescribed upon discharge from index stroke episode and 3) drug compliance rate at post-discharge MIC. The outcomes are 1) percentage of anticoagulation in eligible patients before stroke, 2) percentage of anticoagulation in ischemic stroke patients on discharge and 3) medication adherence on anticoagulants in MIC, assessed by Drug Regimen Unassisted Grading Scale (DRUGS).

Result
266 subjects were identified. 168 patients were indicated for anticoagulation before the index stroke episode, with CHA2DS2-VasC≥2. However, only 45 patients (26.7%)
were on anticoagulants before the index admission. Percentage of anticoagulation on discharged ischemic stroke patients was 50.7%. 38.1% of them were on warfarin while 61.9% were on novel oral anticoagulants (NOAC). 24% of patients who were on anticoagulants before this stroke episode were identified with poor compliance to anticoagulants. Stroke patients discharged on anticoagulants and later followed up in MIC were assessed on medication adherence with DRUGS. Adherence rate was high with mean score of 98.8%. 21 drug-related problems on anticoagulants were rectified. In our stroke unit, pharmacists fill the service gap by assisting on the anticoagulant discussion in stroke patients and subsequent counselling. Our findings confirmed that pharmacist intervention has increased the percentage of anticoagulation in indicated patients and compliance rate to anticoagulants. Pharmacist is at the best position to tackle these challenges.