

## **Prospective Goal Directed Antiplatelet Therapy Adjustments for Neurointerventional Patients in an Outpatient Disease Management Program**

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### **Introduction**

Dual antiplatelet therapy prevents stent related thromboembolic events in cardiac patients and is frequently utilized during neurointerventional procedures. However, the optimal antiplatelet therapy for neurointerventional procedures continues to be a matter of discussion and challenging to implement as inter-individual responses to antiplatelet medication vary significantly and common complications are bleeding and ischemic events. We sought to investigate the efficacy and safety of an outpatient non-physician run antiplatelet therapy management system in patients undergoing neurointerventional procedures.

### **Methods**

Twenty-nine consecutive patients who were identified as candidates for neuro-interventional procedures and 20 historical control patients. Patients were referred prospectively to a newly created outpatient medication therapy disease management program over a recruitment period of 3 months. Referrals were made after an initial in-person clinical contact and patients were then managed remotely. Medication adherence and drug activity levels were measured using the Accumetrics VerifyNow Plavix Reactive Units (PRU) and Aspirin Reactive Units (ARU) assays.

### **Results**

Data from a total 49 patients was available for analysis. Two patients did not reach therapeutic levels by the date of their intended endovascular procedure. There was no patient who was non-therapeutic after placement of the intracranial device during the duration of the program There was no significant association between utilization of the program and bleeding complications compared to the historical control group.

### **Conclusions**

Outpatient remote management of anti platelet medication for intracranial stents and flow diverters is feasible, safe and efficacious. Utilization of a disease management program creates synergy across a large health system and decreases the burden on surgical providers as rates of ischemic and bleeding events were comparable between the two groups.

### **Learning Objectives**

By the conclusion of this session, active participants should be able to:

- 1) Describe the importance of strict management of dual antiplatelet management for intracranial stent and flow diverters
- 2) Identify an effective way to implement a non-physician run outpatient antiplatelet therapy management system in patients undergoing neurointerventional procedures.

### **References**

Michelson AD. Methods for the measurement of platelet function. Am J Cardiol. 2009; 103 (suppl 3): 20A–26A