

CATCHem Before They Fall Through the Cracks: Implementation of a Comprehensive Atherosclerosis Treatment Collaborative Health System Transition of Care Multidisciplinary Clinic

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Background

Peripheral Arterial Disease (PAD)

- **High Cardiovascular Risk**
 - PAD is a strong independent predictor of cardiovascular and all-cause mortality¹
- **Minority Groups Affected**
 - The PAD, prevalence and cumulative risk factor profile analysis found that Non-Hispanic African-Americans had a higher prevalence of PAD than non-Hispanic Caucasians¹
- **Low Rates of Diagnosis**
 - In one analysis, 83% percent of patients with prior PAD were aware of their diagnosis, but only 49% of primary care physicians were aware of this diagnosis²
- **Low Treatment Intensity - Yet Modifiable Risk Factors**
 - There was benefit seen in a cardiovascular rehabilitation program, through the improvement of modifiable risk factors and appropriate medication management of high-risk medications, such as antithrombotics³
 - Patients better achieved secondary prevention targets and displayed less cardiac events

Study Design

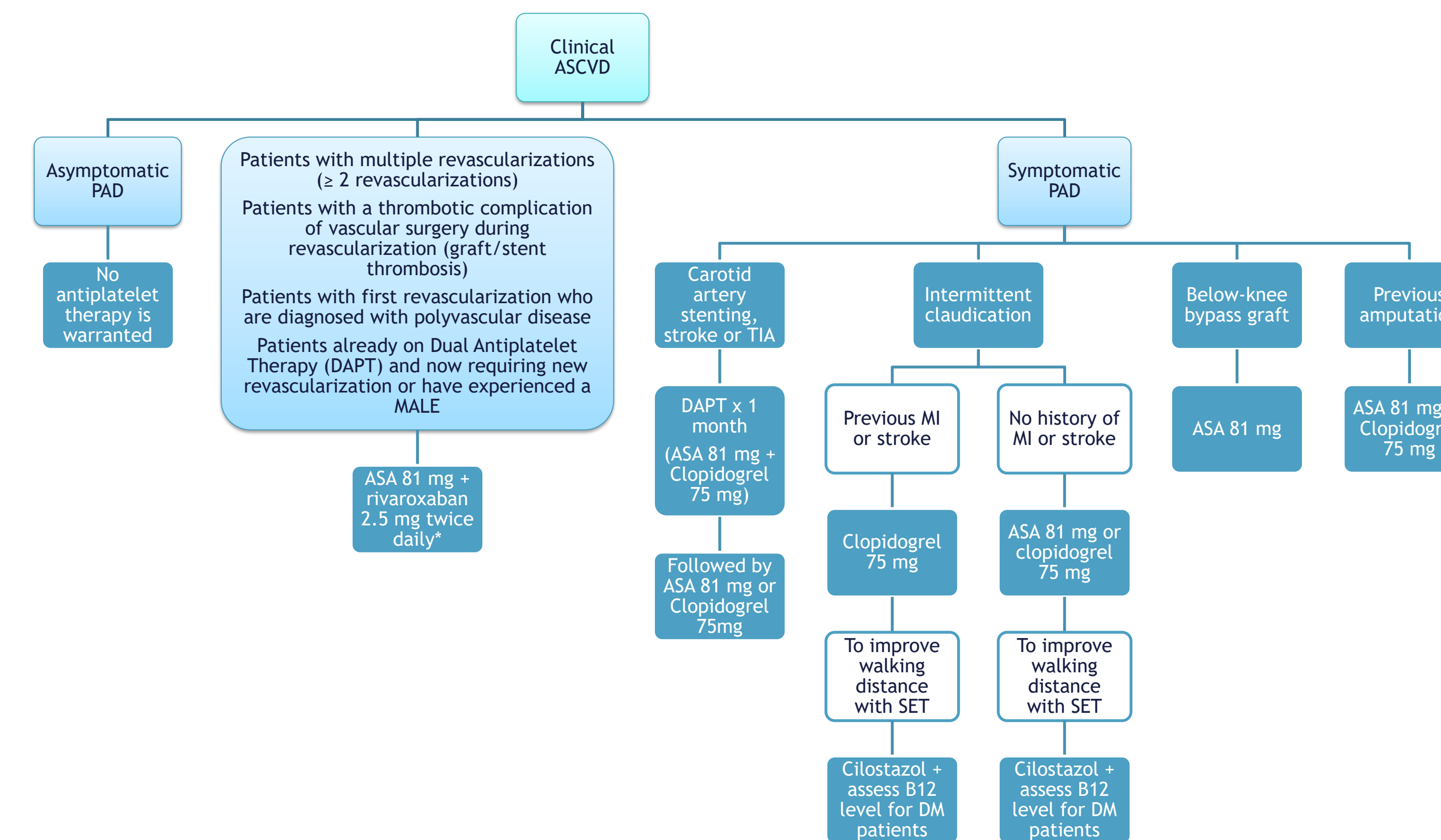
Figure 1. Pillars of Care



- Standardized, peer-reviewed, multidisciplinary approach to guideline development for safe medication practices
- Algorithms developed to ensure guideline-directed medical therapy (GDMT) is adhered to

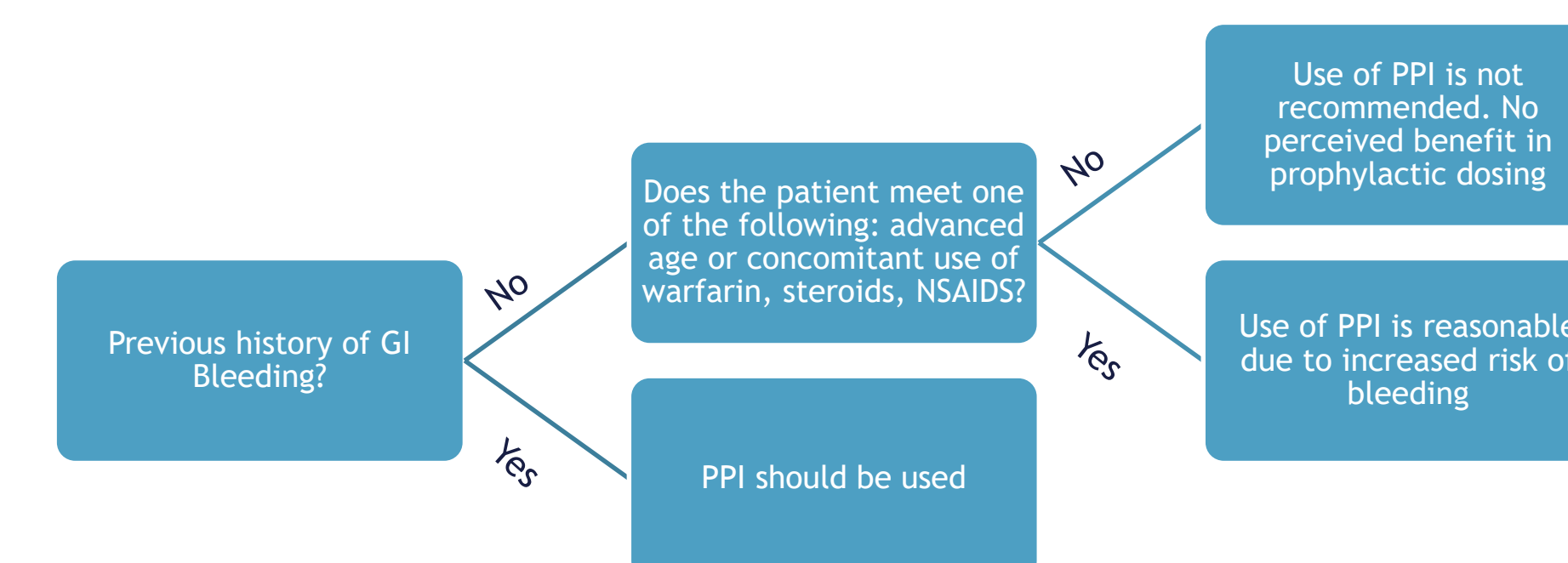
Methods & Algorithms

Figure 2. Example CATCHem Algorithm: Antithrombotic Management Guideline



DM = Diabetes Mellitus, TIA = Transient Ischemic Attack, ASA = Aspirin, SET = Supervised Exercise Therapy, MALE = Major Adverse Limb Event

Figure 3. Example CATCHem Algorithm: Use of Proton Pump Inhibitors



PPI	Degree of CYP 450 2C19 Inhibition	Recommendations Regarding Concomitant Use with Clopidogrel	*Reported Rates of Thrombocytopenia
Pantoprazole	-	Preferred Agent	++
Esomeprazole	-	Possibly	+/-
Omeprazole	++	Avoid	-
Lansoprazole	-/+	Avoid	+/-
Rabeprazole	+	Avoid	Unknown

Implementation & Program Highlights

- Referrals from the Departments of Vascular Surgery & Vascular Medicine
- Immediate discharge transition of care planning and follow-up, particularly for patients discharged on rivaroxaban for PAD or other antiplatelet/anticoagulant medications
- Appointments with vascular medicine made at 1-,3- & 6-month intervals with for a comprehensive clinical assessment
- Pharmacy to assist with coordination of care, communication with providers and medication management
- **Anticoagulant Safety & Management**
 - Strict eligibility and exclusion criteria for low-dose rivaroxaban to minimize risk
 - 2-day follow-up call for those discharged on rivaroxaban with early follow-up
 - Standardized education and comprehension assessment of anticoagulation
 - Constant evaluations to reduce complications

Quality Assessment

Table 1. Study Parameters for Clinic Design, Implementation and Patient Outcomes

Clinic Design Endpoints	Patient Outcome Endpoints
<ul style="list-style-type: none"> • Functional indicators • Compliance • Number of patients educated based on clinical questionnaires • Number of patients referred to a physician / specialist • Number of patients lost to follow-up • Rehospitalization rates 	<ul style="list-style-type: none"> • Number of patients initiated on DM GDMT • Number of patients initiated on HTN GDMT • Number of patients initiated on HLD GDMT • Number of patients optimized on appropriate antithrombotic <ul style="list-style-type: none"> • Subgroup analysis of rivaroxaban • Bleednig rates • Revascularization rates • Patients initiated on smoking cessation medications • Weight Reduction

DM = Diabetes Mellitus, HTN = hypertension, HLD = Hyperlipidemia,

References

1. Eraso et al. Eur J Prev Cardiol. 2014
2. Hirsch et al. JAMA. 2001
3. Ambrosetti et al. Monaldi Arch Chest Dis. 2019