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 mortality[1]
- **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 Caucasians[1]
- **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 diagnosis[2]
- **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 antithrombotics[3]
  - Patients better achieved secondary prevention targets and displayed less cardiac events

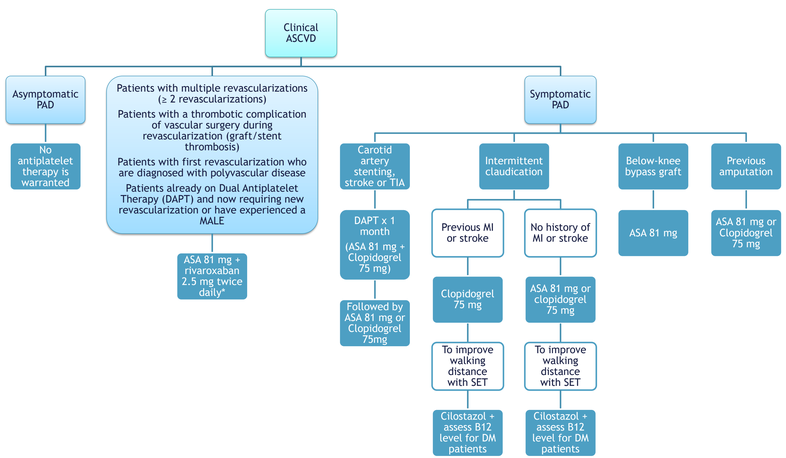
Study Design

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

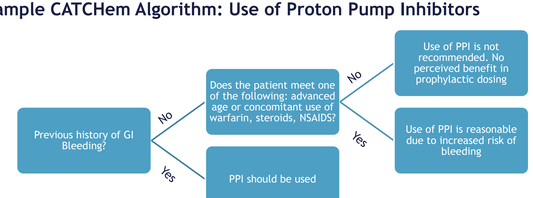
Methods & Algorithms

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

• 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
	• 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
	  • 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

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