Patient Identification With Automated EMR Alerts
Phase 1: Model Share
Wellstar Health System in Marietta, GA

Background & Rationale

For Structural Heart Programs, timely referral and treatment are paramount to improved quality of life and excellent outcomes for patients. Most EMRs do not allow clinical teams the ability to identify at-risk populations in a real-time fashion and provide guidance on evidenced-based practices. Many times, cardiology sub-specialists are faced with evaluating patients late in the disease process when treatment and interventions are limited or prohibitive. Therefore, the Structural Heart team leveraged the EMR (EPIC) by building clinical registries to identify certain patient populations (i.e., Aortic Stenosis/TAVR candidates) and enabled automated BPA alerts to encourage referrals.

Methods

- Structural Heart Physicians and Administrative leadership developed an EMR-based registry with robust inclusion and exclusion, leveraging echo measurements and co-morbidity data, to identify moderate to severe Aortic Stenosis patients.

- Following the registry build by the IT team members, data was reviewed and validated by the Structural Heart team with subsequent refinements of the clinical criteria to ensure the most accurate patient population was identified.

- Automated EMR alerts (aka BPAs) were enabled and ran silently for 4 weeks to understand potential volume impact to Cardiologists, PCPs, Hospitalists and ED Providers as we wanted to understand and minimize BPA fatigue and MD/APP dissatisfaction.

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- Buy-in and approval of this project, including BPAs, was obtained by Cardiology, Primary Care, Hospital Medicine and ED physician leaders.

- Clinical Decision Support Committee approved BPAs being pushed into production given low volume impact to Provider (MD/APP) end users.

- All Provider (MD/APP) end users were educated via email communication and tip sheets on the project's intent and goals, as well as what to expect.

Results

- The clinical registries and associated automated EMR alerts went into production in October 2023.

- Project optimization phase started in November 2023 and remains in progress with focus on improving BPA to referral conversion rate.

- Providers have the option to give a declination reason when referral not placed. These declination reasons have led to further refinement in the clinical criteria.

- For FY24, there was a 17% increase in Structural Heart Procedural volume and 15% increase in Structural Heart Clinic volume compared to FY23.

- Overall, the impact has been meaningful to the Provider end users with no concerns of BPA fatigue or Provider dissatisfaction within the first year.

Conclusion & Peer Suggestions

- The biggest hurdle is understanding why providers bypass the BPA/referral without providing a declination reason.

- Analytics have uncovered provider non-referral behaviors with plan to refine clinical criteria based on their feedback in hopes of improving BPA-referral conversion rate.

- Due to the bolstered volumes with this project, the Structural Heart team plans to increase the numbers of procedure case days and MD clinic presence to address the patient access challenges that have arisen.

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