UNDERSTANDING BARRIERS AND FACILITATORS TO PRESCRIBING SODIUM-GLUCOSE TRASNPORTER-2 INHIBITORS IN PATIENTS WITH HEART FAILURE WITH REDUCED EJECTION FRACTION

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Introduction

- As of 2017, about 3 million Americans were diagnosed with Heart Failure with reduced Ejection Fraction (HFrEF), contributing to significant morbidity, mortality and socio-economic burden^{1,2,3}.
- In 2021, the mean total health care cost for a patient with HFrEF exceeded \$11,000 per patient per month^{2,3}.
- Sodium-Glucose Transporter-2 Inhinitors (SGLT2i) are a cost-effective, Class 1A therapy for patients with HFrEF
- 2022 AHA/ACC/HFSA Guideline for the Management of Heart recommends quadruple therapy, which now includes SGLT2i's^{4,5}.
- Preliminary data on Geisinger patients shows that less than 20% HFrEF patients initiate SGLT2i's.

Objective

The purpose of this study is to gain insights into the barriers and facilitators that influence the utilization of guideline-directed medical therapy (GDMT), with a focus on sodium-glucose cotransporter 2 inhibitors (SGLT2is) in patients with heart failure with reduced ejection fraction (HFrEF) managed within an integrated health delivery network.

Methods

- We performed a qualitative descriptive study using a semi-structured interview guide developed using clinical stakeholders' insight.
- Purposeful sampling was used to recruit providers from Geisinger's cardiology departments for interviews.
- The study focused on providers who do outpatient medication management for HFrEF patients.
- A rapid qualitative analysis was performed
- General themes were identified by-question based on consensus and presented to the broader team for discussion and further refinement.

Results

- We completed 20 interviews with clinicians from across 8 clinic sites.
- 18 interviews were included in the final sample; two interviews were excluded (one interventional cardiologist and one inpatient cardiology Nurse Practitioner) as they did not practice medication management for HFrEF in the outpatient setting.
- Majority of the clinicians interviewed were physicians, with an average of 10 plus years of experience practicing cardiology and treating approximately 20 patients per week with HFrEF.

Results and Figures Clinician-related Cost-related Facilitators to barriers to GDMT barriers to prescribing GDMT prescribing GDMT prescribing Inclusion of clinical Clinical inertia "The thing is that there is that pharmacist support Lack of knowledge about patient we are still not as comfortable, copays, insurance let's put it this way, because it's coverage and other out-ofthe newest thing that came in." pocket costs at Lack of familiarity (clinician #7) and comfort prescribing "She (clinical pharmacist) looks Lack of knowledge at the patients, looks at the Concerns about insurance, is able to do all the pushing the patient into paperwork, knows all the the Medicare loopholes, and can get the "donut-hole" when Polypharmacy applicable medications for the patients Concerns that they need" (clinician #8). "But to sit there and tell patient that's "When we do have patient that "Oftentimes they may be good feeling, sometimes they feel OK, they have a diabetes, these SGLT2 candidates for these medications, but feel fine - that I'm gonna start you on inhibitors are very important.....as due to insurance and cost reasons and four medications. They are not happy cardiologists, we don't tend to nothing else, not even tolerance issues, about that and it's really difficult to manage diabetes" (clinician #8) it's going to be the reason why they explain to them why it's important" either stay on just an ACE or an ARB, or (clinician #1). never get an SGLT2i" (clinician #15)

Conclusion

- Medication cost and affordability of brand name drugs, be it actual or perceived remained a major barrier to the prescribing of SGLT2i and thus adhering to GDMT prescribing.
- In addition to cost, clinical inertia, polypharmacy concerns, and lack of comfort with prescribing newer medication class such as SGLT2i were observed as major barriers to increasing GDMT prescribing in outpatient settings at Cardiology practices.
- Providers practicing at cardiology locations that had support in the form of clinical pharmacist often acknowledged their presence as a major facilitator to increasing SGLT2i prescribing in patients with HFrEF

Limitations

- This study was conducted within a single healthcare system that has a large ambulatory care pharmacy presence which may limit the transferability of our findings.
- While our sample size was small and we did not randomly sample clinicians, we did reach data saturation given the duplicative nature of the final interviews conducted which we feel strengthens the internal validity of our study.

References

1.Savarese, G., & Lund, L. H. (2017). Global Public Health Burden of Heart Failure. *Cardiac failurereview, 3*(1), 7–11. https://doi.org/10.15420/cfr.2016:25:2
2.Faridi, K. F., Dayoub, E. J., Ross, J. S., Dhruva, S. S., Ahmad, T., & Desai, N. R. (2022). Medicare Coverage and Out-of-Pocket Costs of Quadruple Drug Therapy for Heart Failure. *Journal of the American College of Cardiology, 79*(25), 2516–2525. https://doi.org/10.1016/j.jacc.2022.04.031
3.Lam, C., Wood, R., Vaduganathan, M., Bueno, H., Chin, A., Luporini Saraiva, G., Sörstadius, E., Tritton, T., Thomas, J., & Qin, L. (2021). Contemporary economic burden in a real-world heart failure population with Commercial and Medicare supplemental plans. *Clinical cardiology, 44*(5), 646–

655. https://doi.org/10.1002/clc.23585
4.Sharma, A., Verma, S., Bhatt, D. L., Connelly, K. A., Swiggum, E., Vaduganathan, M., Zieroth, S., & Butler, J. (2022). Optimizing Foundational Therapies in Patients With HFrEF: How Do We Translate These Findings Into Clinical Care?. JACC. Basic to translational science, 7(5), 504–517. https://doi.org/10.1016/j.jacbts.2021.10.018

