A national heart failure initiative is associated with improved use of quadruple guideline-directed medical therapy


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Background: Heart Failure (HF) is projected to impact over 8 million people in the US by 2030. The 2022 AHA/ACC/HFSA Guideline for the Management of HF recommend four foundational medication classes for treating HFrEF patients: RAAS inhibitors, preferably angiotensin receptor/neprilysin inhibitor (ARNi), evidence-based beta-blockers (EBBB), sodium-glucose cotransporter-2 inhibitor (SGLT2i) and mineralocorticoid receptor antagonist (MRA) referred to as Quadruple Guideline-Directed Medical Therapy (Q-GDMT). Q-GDMT has shown an estimated 73% relative and 26% absolute reduction in all-cause mortality over 2 years. Yet, despite remarkable clinical potential, these therapies are patently underutilized in clinical practice. It is unknown whether an implementation science strategy may enhance adherence to Q-GDMT for HF.

Methods: IMPLEMENT-HF (IHf) is a national HF quality improvement initiative composed of a multidisciplinary learning collaborative and resource repository across seven U.S regions. IHF promotes adherence to Q-GDMT by focusing on early adoption and rapid adherence to prescribing at hospital discharge and within 30 days post discharge. Multi-disciplinary participation in the learning collaborative includes pharmacy, provider groups, nursing, quality, social services, outpatient clinics and others. Shared interventions to promote Q-GDMT include formulary changes (e.g., adding SGLT2i), optimizing electronic health record tools (disease-specific order sets, dot phrases), clinician education, and user-friendly patient resources to address medication access. IHF sites receive educational materials, including webinars, learning modules, pocket guideline booklets, and reminder cards to reinforce Q-GDMT. IHF participating hospitals collect Q-GDMT data at discharge and at 30 days post discharge in Get With The Guidelines®-Heart Failure (GWTG-HF). These data were analyzed from baseline (Q1 Q2 2021 aggregate) through Q3 2022.

Results: Data from 71 IHF participating sites of 13,858 HFrEF patient hospitalization episodes (median age 69, 34% females, median LVEF 24%), demonstrated Q-GDMT prescription at discharge increased from 14% at baseline to 47% in Q3 2022 (p value <0.001). 30-day post discharge data from 52 IHF sites demonstrated an increase in Q-GDMT from 9% at baseline to 58% in Q3 2022 (p value <0.001) as seen in Figure 1.

Conclusions: Among sites participating in IHF, the use of an implementation science strategy suggest a rapid increase in prescribing Q-GDMT for eligible HFrEF patients at discharge and 30-days post discharge. This multi-region quality improvement initiative demonstrates the potential for this learning collaborative model to drive improvement in adherence to Q-GDMT prescribing, using shared implementation strategies to overcome barriers. Ongoing study will assess continued compliance and clinical outcomes with Q-GDMT beyond the timeframe of this analysis.
Quadruple Medication Therapy baseline-Q3

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<th>Baseline (Q1 &amp; Q2 2021 aggregate)</th>
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