DCRI THINK TANKS

FROM INSIGHT TO ACTION

"Implementation Summit on the Dissemination of Strategies to Improve Uptake of Guideline-Directed Therapies" in cardiovascular care.

BACKGROUND AND CONTEXT

On February 24-25, 2025, the Duke Clinical Research Institute (DCRI) hosted an "Implementation Summit on the Dissemination of Strategies to Improve Uptake of Guideline-Directed Therapies" in cardiovascular care.

In the case of cardiovascular disease, there is a plethora of evidence that have demonstrated gaps in implementation of evidence-proven therapies in coronary heart disease, heart failure, atrial fibrillation and other cardiovascular diseases. Studies have also demonstrated gaps may be un-equal and contribute to increased disparities in health outcomes.[1] Increasingly implementation strategies to address patient-, provider-, and system-level barriers have been developed and tested, but many promising strategies have only been evaluated in small randomised clinical trials or in isolated health systems.[2] This presents opportunities to learn from cross-regional experiences in implementation, and also the impetus to disseminate, tailor, scale, and sustain these interventions at the level of health systems.

The summit brought together stakeholders including leadership from academia, industry, payer groups, research funders and professional societies to discuss case studies of proven strategies to improve implementation at the point-of-care with the focus on dissemination of effective implementation strategies to broad populations.

KEY TAKEAWAYS AND THEMES

Structure, Process, and Outcomes Measures to Guide Quality of Care

Well-designed electronic health records to support clinical care delivery and adaptative to evolving care strategies were seen as foundational to many implementation efforts. Process measures are frequently used to help identify key aspects of care delivery. For example "door-to-balloon" and "first medical contact to device" times (i.e. time from arrival to hospital, or from first medical contact by emergency medical services, to time of alleviation of coronary blockage in patients with myocardial infarction) are widely accepted process measures, the use of which have resulted in improved clinical outcomes.[3] However, these process measure may not specifically identify barriers or enablers of guidelines recommended for care, which may be complimented by process evaluations providing more nuanced understanding to inform interventions. Clinical registries with benchmarking and feedback have been an important piece of implementation efforts around guideline-recommended care. Ultimately, patients are most concerned with their health outcomes. Public reporting of mortality, readmission, and patient satisfaction have helped patients, clinicians, and systems focus on improving these outcomes. Similarly relevant, easy to measure, and accepted metrics are urgently needed in the realm of chronic disease prevention and management. While endorsed by the International Consortium of Health Outcomes Measurement, Guidelines, and even the ACC/AHA Heart Failure Performance measures, PROs represent a clinically important outcome that have yet to be widely incorporated into clinical care.[4,5]

Clinical Task Sharing

Clinical task sharing, a collaborative approach among diverse healthcare professionals to optimize healthcare delivery, was identified as a way to improve the implementation of guide-line-directed therapies. Numerous examples of success with this approach have been demonstrated in lipid,[6] hypertension,[7] and diabetes management.[8] For example, a pharmacist-led approach to dyslipidemia management can result in a three-fold increase in the proportion of individuals reaching cholesterol targets.6 Coordinated intervention strategies may also harness nurses, physician assistance and non-clinical staff with detailed instructions and protocols. For these initiatives to be successful, there needs to be alignment of financial compensation to support such models of care. Moreover, creation of collaborative practice guidelines based on evidence of what works well between members of the healthcare team are needed.

Implementation Science Education

The evolving field of Implementation Science provides invaluable frameworks for changing practice. While the need for implementation science expertise far exceeds existing opportunities to learn it,9 clinicians need to understand the process of identifying and overcoming barriers to adoption and dissemination. Accordingly, there is a significant need for implementation science education, customized to various stakeholders' (front-line clinicians, researchers, clinical practice guideline writers, leaders in developing and refining models of care) needs and levels of training (from medical school to continuing medical education). Such training needs to be targeted to a wide spectrum of healthcare clinicians including pharmacists and advanced practice clinicians, who have proven to be important in successful implementation interventions.

ACTIONABLE ITEMS

1. **Undertake an updated systematic review of practical implementation frameworks and effective implementation strategies to guide implementation of evidence in cardiovascular disease**
   In 2017, the American Heart Association and American College of Cardiology created a special report evaluating effective implementation science strategies to improve cardiovascular care.10 Since then, significant advances have been made in the field, with a growing need to update this report with a focus on implementation strategies that target process metrics that strongly correlate with improve clinical outcomes. An expert consensus group may be the most efficient way to provide this update. Additionally, an exploration of barriers to implementation with roadmaps to develop and implement strategies at a local-, health system- and national-level,11 would further improve the utility to all stakeholders.

2. **Develop guidelines on collaborative models of care and health service delivery**
   With the increasing complexity of cardiovascular patients, there are frequently numerous healthcare providers involved in patients' cardiovascular care. Clinical task sharing (such as pharmacist-led dyslipidemia or blood pressure management) has been identified as a model that improves implementation and clinical outcomes. However, testing across different healthcare systems should be done to confirm the validity of the treatment model, identify models of care, and define roles and responsibilities of clinicians, that can be applied broadly across healthcare systems.
   Many health systems have developed these collaborative practice groups independently, however, the collation and sharing of these resources will help other health systems emulate successful programs. Programs that involve a wide range of health-care providers should also be considered. The ability to effectively share strategies that have been successful in one health system, to support dissemination across other health systems is a priority. Further work is required to identify the optimal platform to facilitate this process.

3. **Develop an implementation science curriculum for cardiovascular disease**
   The need for targeted implementation science education has been identified as a priority. To meet this need, we propose the creation of curricula focusing on implementation science competencies within a practical framework to support front line health care providers including pharmacists, advanced practice providers, nurses, medical doctors, quality improvement professionals, population health teams, etc., iteratively improving the value and equity of healthcare that they deliver. Other methods of implementation science education should also be considered such as micro-education platforms, outlining case studies, and focus on practical strategies. Additional opportunities include the development of an implementation science curriculum outlining core competencies at various levels of medical education – from medical school to fellowship to ongoing accreditation.

References:

1. Douglass Paul L, Itchhaporia D, Bozkurt B, et al. Achieving Equitable Cardiovascular Care for All. JACC: Advances. 2024/07/01 2024; 3(7_Part_2):101050. doi:10.1016/j.jacadv.2024.101050
2. Abdalla M, Bolen SD, Brettler J, et al. Implementation Strategies to Improve Blood Pressure Control in the United States: A Scientific Statement From the American Heart Association and American Medical Association. Hypertension. 2023/10/01 2023;80(10):e143-e157. doi:10.1161/HYP.0000000000000232
3. Granger CB, Bates ER, Jollis JG, et al. Improving Care of STEMI in the United States 2008 to 2012. Journal of the American Heart Association. 2019/01/08 2019;8(1):e008096. doi:10.1161 JAHA.118.008096
4. Kelley TA. International consortium for health outcomes measurement (ICHOM). Trials. 2015;16(Suppl 3):O4.
5. Heidenreich PA, Fonarow GC, Breathett K, et al. 2020 ACC/AHA clinical performance and quality measures for adults with heart failure: a report of the American College of Cardiology/American Heart Association Task Force on Performance Measures. Journal of the American College of Cardiology. 2020;76(21):2527-2564.
6. Tsuyuki RT, Rosenthal M, Pearson GJ. A randomized trial of a community-based approach to dyslipidemia management: Pharmacist prescribing to achieve cholesterol targets (RxACT Study). Can Pharm J (Ott). Sep 2016;149(5):283-292. doi:10.1177/1715163516662291
7. Isetts BJ, Buffington DE, Carter BL, Smith M, Polgreen LA, James PA. Evaluation of pharmacists' work in a physician-pharmacist collaborative model for the management of hypertension. Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy. 2016;36(4):374-384.
8. Fazel MT, Bagalagel A, Lee JK, Martin JR, Slack MK. Impact of diabetes care by pharmacists as part of health care team in ambulatory settings: a systematic review and meta-analysis. Annals of Pharmacotherapy. 2017;51(10):890-907.
9. Brownson RC, Cabassa LJ, Drake BF, Shelton RC. Closing the gap: advancing implementation science through training and capacity building. Implementation Science. 2024/07/03 2024;19(1):46. doi:10.1186/s13012-024-01371-x
10. Chan Wiley V, Pearson Thomas A, Bennett Glen C, et al. ACC/AHA Special Report: Clinical Practice Guideline Implementation Strategies: A Summary of Systematic Reviews by the NHLBI Implementation Science Work Group. JACC. 2017/02/28 2017;69(8):1076-1092. doi:10.1016/ jjacc.2016.11.004
11. Laranjo L, Lanas F, Sun MC, et al. World Heart Federation roadmap for secondary prevention of cardiovascular disease: 2023 update. Global heart. 2024;19(1):8.

For more information, please visit https://dcri.org/think-tanks/.

DCRI **THINK TANKS**
FROM INSIGHT TO ACTION

Duke Clinical Research Institute