



CARDIOVASCULAR WEB DIAGNOSTICS

Importance of Cardiovascular Disease Management in Enhancing Value Based Care

Introduction:

- Cardiovascular diseases (CVD) including acute myocardial infarction, ischemic heart disease, congestive heart failure, and atrial fibrillation are the leading cause of mortality and disability in the United States, which also comprises a significant share of healthcare expenditure in this country.
- Primary care providers (PCP) including internists, family practice specialists, and mid-level providers (NPs, PAs) manage the vast majority of chronic cardiovascular conditions.
- Keeping these costs under control while maintaining the quality of care is a very important goal for healthcare organizations especially those following a Value-Based Care model such as Accountable Care Organizations (ACO).
- In the current practice, a patient with cardiac disease is usually referred to a cardiologist who in turn orders cardiac diagnostic testing done at their office or at a local hospital.
- This can sometimes result in significant delays in care that is often less efficient and more costly, especially in a rural setting.
- Only a smaller proportion of patients (<50% in one study¹⁴) referred to a specialist is actually evaluated by the specialist, the so-called “consult gap”.

Background:

- Progress in innovation and treatment options has greatly improved care of patients with cardiovascular diseases, but this has also resulted in significant cost increases.^{1,2}
- The fee-for-service reimbursement prevalent in cardiovascular care does not favor holistic management of the disease process resulting in more emphasis on invasive management and also less coordination with primary care services leading to fragmentation of care.³
- Recent changes to payment models affected by the implementation of the Medicare shared savings program (MSSP) by the Centers for Medicare and Medicaid Services (CMS) in 2012 have seen an increasing shift to value based care arrangements.
 - These alternative care/payment models has the potential to significantly improve cardiovascular care and possibly less care fragmentation, allowing team-based care involving the cardiologist and primary care providers.⁴
 - Accountable care organizations (ACO) are an example of primary care focused longitudinal value based care models that link payment to population-level cost benchmarks and quality performance metrics with an emphasis on care coordination and risk factor modification that contains CVD-related quality measures.
 - These models have shown promise in improving cardiovascular care and quality.^{5,6}

- The MSSP accountable care organizations have achieved only modest savings since its inception.⁷
 - One possible explanation for this is that ACOs typically not include specialist physicians in their networks.^{5,8}
 - The specialist physicians (eg. Cardiologists) control expensive testing and procedures and their participation in the ACO is limited which may adversely affect the savings.⁹
- In a retrospective cohort study of Medicare beneficiaries between 2008–2015, Sukul et al. showed that ACOs with Cardiologist participation achieved greater spending reduction among beneficiaries with cardiovascular disease (approximately \$200 greater spending reduction per beneficiary) without affecting the quality of care.
 - Providing context to the savings, if the nearly 320,000 beneficiaries aligned with an ACO without Cardiologist participation in 2015 were instead aligned with an ACO with Cardiologist participation, there could have been an additional \$300 million savings.⁵
- Various State Medicaid programs as well as commercial insurance providers have launched ACO contracts that included cardiology specialists and have observed a reduction in hospitalization rates especially for conditions such as heart failure.^{10,11}
- The observed benefits of these programs have not been reproduced across the board due to various reasons that are still under investigation.¹² Some of the potential reasons include:
 - Variable involvement of cardiac specialists in the ACOs.
 - Inadequate quality metrics are measured.
 - Conflicts arising between the hybrid fee for service and capitation payment systems.¹³

Proposed Solution:

- Independent primary care practices and ACOs can optimize the care of their patients with cardiovascular diseases by:
 - Having a mechanism where the PCP has the ability to “curb-side” consult virtual cardiology specialists licensed in their states with quick management questions that can help expedite care, rather than a full cardiology consultation referral.
 - The remote cardiologist can review patient’s chart at the request of PCPs to confirm that the patient is on an appropriate treatment regimen for their cardiac condition and recommend changes to treatment as needed.
 - The CMS-authorized inter-professional e-Consult service billing codes (CPT 99451-99452) can be helpful to establish this kind of arrangement. For ACOs, this can result in overall cost savings.
 - The cardiologist can recommend a tele-visit for a more complete evaluation if deemed necessary after chart review.
 - Improve the “consult gap” by allowing more patients to be evaluated by cardiologists.
- Cardiovascular studies such as echocardiograms, vascular studies, cardiac monitors, and stress tests can be done at the primary care offices rather than referred out.
 - Virtual cardiovascular specialists can interpret these studies resulting in cost savings and potentially additional revenue.

Conclusion:

- Having an established relationship with a remote cardiology provider can help primary care practices and Accountable Care Organizations enrolled in a Value-Based Care model improve cardiac outcomes of patients while keeping healthcare costs in check.
- The ability to perform and obtain remote interpretation of non-invasive cardiovascular diagnostic studies can result in expedited care, cost savings, and potential additional revenue for the independent primary care practice.

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