Journal of General Internal Medicine

Translating Evidence into Practice ACOs' Use of Care Plans for Patients with Complex Health Needs

--Manuscript Draft--

Manuscript Number:	JGIM-D-19-00364R2
Full Title:	Translating Evidence into Practice ACOs' Use of Care Plans for Patients with Complex Health Needs
Article Type:	Original Research: Qualitative Research
Section/Category:	Implementation Science
Funding Information:	Commonwealth Fund (20171072) — Dr. Carrie H Colla Peterson Center on Healthcare (18011) — Dr. Carrie H Colla Robert Wood Johnson Foundation (74883) — Dr. Carrie H Colla SCAN Foundation (17-013) — Dr. Carrie H Colla John A. Hartford Foundation — Dr. Carrie H Colla Agency for Healthcare Research and Quality (U19HS024075) — Not applicable
Abstract:	Background Care plans are an evidence-based strategy, encouraged by the Centers for Medicare and Medicaid Services, used to manage the care of patients with complex health needs that have been shown to lead to lower hospital costs and improved patient outcomes. Providers participating in payment reform, such as accountable care organizations, may be more likely to adopt care plans to manage complex patients. Objective To understand how Medicare ACOs use care plans to manage patients with complex clinical needs. Design A qualitative study using semi-structured interviews with Medicare ACOs. Participants 39 interviews were conducted across 18 Medicare ACOs with executive-level leaders and associated clinical and managerial staff. Approach Development, structure, use and management of care plans for complex patients at Medicare ACOs. Key Results Most (11) of the interviewed ACOs reported using care plans to manage care of complex patients. All care plans include information about patient history, current medical needs, and future care plans. Beyond the core elements, care plans included elements based on the ACO's planned use and level of staff and patient engagement with care planning. Most care plans were developed and maintained by care management (not clinical) staff. Conclusions ACOs are using care plans for patients with complex needs but their use of care plans does not always meet the best practices. In many cases, ACO usage of care plans does not align with prescribed best practices: ACOs are adapting use of care plans to better fit the needs of patients and providers.
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Author Comments:	June 6, 2019 Steven Asch, MD, MPH, Carol Bates, MD, and Jeffrey L. Jackson, MD, MPH Co-Editors in Chief Journal of General Internal Medicine Dear Dr. Asch, Dr. Bates, and Dr. Jackson, We are pleased to submit our manuscript entitled: “Translating Evidence into Practice: ACOs’ Use of Care Plans for Patients with Complex Health Needs,” for consideration as an original article. Personalized care plans are an evidence-based strategy that can help providers effectively manage patients with complex health needs. Ideally, care plans serve as a centralized resource that summarizes the patient’s history, current needs, and goals for the entire care team to access (including primary care, care management, and specialist care). Given the potential impact of care plans, CMS promotes their use through several initiatives including the new Primary Care First model, the CPC+ program, and as part of their Chronic Care Management billing. Given the promise of personalized patient care plans, we wanted to learn how ACOs are using them as part of their efforts to care for patients with complex health needs since ACOs may be uniquely motivated to deploy care transformation activities, such as care plans, that are resource-intense, but that may impact total costs of care. We conducted 39 interviews with 18 ACOs to learn how they use personalized care plans for patients with complex clinical or social health needs. All care plans included elements of patient history, current clinical needs, and goals, but the depth and comprehensiveness of information varied. Some ACOs used care plans as a tool to aid the care team by providing a snapshot of patient needs, while other ACOs used care plans as a patient engagement tool. Care plans were predominately a tool for care management staff – ACOs regularly asked patients for information about specialist visits and ACOs struggled to describe how or if clinicians access plans. Our findings suggest that, at least among these ACOs, the use of patient care plans falls short of the ideal. ACOs described value in their use of patient care plans – it may be that ACOs are pragmatically adapting evidence-based care plans or it may be that ACOs might fall short of the promise of care plans. A better understanding of how providers on the ground implement care plans can help policymakers as they are developing primary care transformation models as well as other providers who considering implementing care transformation. This manuscript has not been previously published and is not under consideration in the same or substantially similar form in any other peer-reviewed media. An earlier version of this paper was presented at the 2019 AcademyHealth Annual Research Meeting in Washington DC. All authors listed have contributed sufficiently to the project to be included as authors, and all those who are qualified to be authors are listed in the author byline. To the best of our knowledge, no conflict of interest, financial or other, exists. Sincerely,

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Response to Reviewers:	April 23, 2020 Christian Helfrich, PhD Guest Editor Journal of General Internal Medicine RE: Manuscript ID: JGIM-D-19-00364 Dear Dr. Helfrich, Thank you so much for your support. We agree with the reviewers that the manuscript is substantively improved, and we are excited to have this manuscript published in JGIM. Based on the Reviewer #1's suggestion, we integrated the McWilliams article into the discussion (page 17). We appreciate your time and consideration, Taressa Fraze, PhD Assistant Professor Department of Family and Community Medicine University of California, San Francisco

Translating Evidence into Practice:

ACOs' Use of Care Plans for Patients with Complex Health Needs

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References: 43

Tables: 0

Figures: 1

Appendices: 1

Article word count (including quotations): 3954

Abstract word count: 247

Key words: primary care, accountable care organizations, complex patients, care plans

Running title: ACO's use of care plans

Abstract

Background

Care plans are an evidence-based strategy, encouraged by the Centers for Medicare and Medicaid Services, used to manage the care of patients with complex health needs that have been shown to lead to lower hospital costs and improved patient outcomes. Providers participating in payment reform, such as accountable care organizations, may be more likely to adopt care plans to manage complex patients.

Objective

To understand how Medicare ACOs use care plans to manage patients with complex clinical needs.

Design

A qualitative study using semi-structured interviews with Medicare ACOs.

Participants

39 interviews were conducted across 18 Medicare ACOs with executive-level leaders and associated clinical and managerial staff.

Approach

Development, structure, use and management of care plans for complex patients at Medicare ACOs.

Key Results

Most (11) of the interviewed ACOs reported using care plans to manage care of complex patients. All care plans include information about patient history, current medical needs, and future care plans. Beyond the core elements, care plans included elements based on the ACO's

planned use and level of staff and patient engagement with care planning. Most care plans were developed and maintained by care management (not clinical) staff.

Conclusions

ACOs are using care plans for patients with complex needs but their use of care plans does not always meet the best practices. In many cases, ACO usage of care plans does not align with prescribed best practices: ACOs are adapting use of care plans to better fit the needs of patients and providers.

Introduction

Traditional physician-patient relationships included many aspects of patient care that can be lost in today's fragmented or team delivery models. Physicians that have long-term relationships with patients understand their histories, life situations, and goals. Yet, on average, Medicare patients see an increasing array of clinicians, both in number and specialty.[1,2] This is especially the case for patients with complex health needs[3] – such as those with multiple chronic conditions, serious illnesses, or behavioral health needs – and these patients drive much of health care spending.[4] Complex patients may need more intensive, frequent, coordinated, and comprehensive health care that is targeted to their clinical and socioeconomic concerns, and a thorough understanding of their history, needs, and goals is vital to successful care.[5-8]

Comprehensive patient care plans are an evidence-based tool used to clinically manage patients with complex health needs. Care plans can modestly improve patients' clinical and psychosocial markers including blood pressure control, depression symptoms, and perceived ability to self-manage health.[9,10] A recent systematic review that examined 19 randomized control trials found that personalized care plans are likely most effective when interventions are more comprehensive, intense, and integrated into routine care.[9] Across studies, the effects of care planning were modest – for example, they found moderate quality evidence for the impact of care planning on glycated hemoglobin (HbA1c) across nine studies (mean difference between intervention and control of -0.24%).[9] In addition to improving clinical markers, care plans are used with the goal of reducing unnecessary hospital-based utilization. There is some evidence which suggests care plans may reduce subsequent inpatient stays - in a pre-post design one study found a significant decrease in hospital stays (56% reduction at 6 months) and 30-day

readmissions (66% reduction at 6 months), but more rigorous research is needed to fully understand the impact of care plans on utilization outcomes.[11]

With the hope of improving quality outcomes while reducing costs, the Centers for Medicare and Medicaid Services (CMS) has embraced the use of care plans as a marker of advanced primary care by requiring providers to use them when billing under Chronic Care Management codes[12] as well as part of the CPC+[13] and the new Primary Care First models.[14] Care plans are ideally developed after consultation with the patient and in collaboration with their broader care team including primary and specialist care.[15] Care plans should serve as the centralized landing space for a given patient to ensure all care team members can easily access and contribute to comprehensive information about the patient including the patient's history, current clinical and non-clinical needs, and goals;[5,15-18] and they should be driven by a patient's personal preferences and aligned with their clinical needs.[5,17,19-21]

Medicare, Medicaid and commercial payers are using alternative payment models, such as accountable care organizations (ACOs) and medical homes, to promote accountability for patient needs across the care spectrum. Providers under value-based contracts have incentives to implement evidence-based interventions, such as patient care plans, that are not directly reimbursable but may impact overall spending and quality of care.[22] While Medicare's ACO models have shown modest reductions in total costs of care, evidence suggests that savings may be more substantial for patients with complex clinical needs.[23] Patients with complex health needs may benefit the most from care delivery transformations associated with payment reform;

therefore, ACOs may use care plans as a way to realize savings via patients with complex needs who typically drive healthcare costs.[24]

Payers are also introducing chronic condition management billing codes,[12] special needs plans, and advanced primary care models[13,14] to promote specialized care for complex patients.[25] Yet, there is little understanding of how providers use care plans in routine clinical settings.[26,27] Previous studies have typically assessed care plans as part of formalized, multifaceted interventions and have shown modest improvements to physical health, but little is known about how care plans are used outside of these formal programs.[9,10] Frontline providers may struggle to implement care plans using best practices – including collaborative development between primary care, specialist care, and patients – identified in previous research. In this study, we use qualitative interviews to describe how Medicare ACO providers, who have been successful at meeting savings and quality benchmarks, develop and implement processes around care plans for patients with complex health needs.

Methods

We conducted 39 semi-structured interviews with 18 ACOs to understand their processes and strategies for caring for patients with complex health needs. In each ACO, we first conducted an interview with ACO leaders such as the Director, Chief Medical Officer, or other executive-level individual. All interviewed ACOs were invited to complete a second round of interviews with care managers, directors of care management programs, practice leaders, or others suggested by ACO executives. Eleven ACOs agreed to participate in follow-up interviews with frontline staff, we conducted an additional 21 interviews. The second round of interviews aimed to identify

individuals with on-the-ground experience of the ACO's approaches for caring for patients with complex health needs. The online appendix provides more detail on the characteristics of interviewed ACOs.

Interviews were conducted via telephone between February and June 2018. All interviews were recorded and transcribed, and then analyzed using QRS NVivo.[28] ACOs were selected from respondents to the National Survey of ACOs and limited to those with a Medicare Shared Savings Program (MSSP) contract that achieved shared savings in at least one year.[29] We used an iterative outreach process to achieve diversity in terms of geography, composition, ownership, and payer. Of the interviewed ACOs, 13 had at least one additional ACO contract with a commercial or Medicaid payer. Semi-structured interviews lasted approximately one hour and included information on the ACO structure, leadership, governance, engagement with primary care practices, and approaches to caring for complex patients.

We identified 11 ACOs that used care plans for patients with complex health needs. We defined a care plan as a written document created by a member of the patient's care team and developed based on interaction with the patient (i.e., not *solely* data driven). To be included in our analyses, care plans must have included information on the patient's medical history, current clinical needs, and future management of the patient.[9,15,17]

Our analytic approach was collaborative and iterative.[30] All transcripts were first coded by a research assistant and then coded unblinded by the first author, any coding discrepancies were discussed. We developed a detailed memo of results based on initial coding that identified

themes and findings across ACOs, with examples to support each theme. The memo was iteratively revised based on team discussion, and further review and coding of the data.

Results

In the 11 ACOs that used care plans, they were typically created as part of a broader care management program. Patients under care management included those: (1) with frequent hospital-based utilization such as inpatient stays or emergency department visits; (2) with multiple chronic conditions; (3) with high costs; or (4) identified by algorithms or providers as high-risk for costs or utilization. Care management staff – including medical assistants, health coaches, care managers, and care coordinators – were generally responsible for developing and maintaining care plans. While primary care and specialist physician providers may utilize or review care plans, they were not responsible for developing care plans at any of the interviewed ACOs.

Core functions and scope of care plans

The scope of care plans and the processes used to develop them varied along a continuum based on how ACOs described the core functions of care plans – ranging from care plans predominantly used as a tool to aid the care team to care plans as a tool for patient engagement (Figure 1). Most ACOs used care plans as either a blend of condition and patient driven or as predominantly patient driven. Few used them as solely a tool to aid the care team in organizing and sharing patient information. These care plans typically functioned to provide a snapshot of the patient. For example, one ACO described their care plan as a "landing space" for providers, with a dashboard of important data points:

> "We've added customizations [to their health record], so you can quickly see the risk of readmission, other risk factors, the Gagne risk score, the care manager risk score, you can see a summary of their medications, you can see a summary of their encounters. It's somewhat of a landing place." – ACO executive

At this end of the continuum, care plans typically relied on condition-based guidelines to develop patient goals and aimed to improve specific and measurable aspects of patient health. As part of their disease management program, one ACO used software developed from evidence-based clinical guidelines to automatically generate care plans and goals from the patient's history and current clinical markers. These care plans only addressed clinical needs and were minimally modified based on the patient's priorities, for example, goals were based on identified patient care gaps such as immunizations or upcoming lab tests.

Along the middle of the continuum, where care plans were designed to help the care team address clinical needs and as a tool to engage patients, care plans tended to be more comprehensive and required greater involvement of both staff and patients. These blended care plans typically involved non-clinical elements such as social needs and patient activation. One ACO included information about patients' medical conditions, preventive care needs, social needs (e.g., transportation or housing), substance use, and whether the patient wears glasses or hearing aids. Another ACO used standard patient assessment tools including patient activation measures. One ACO described:

> "We're able to go in at that time frame and do that comprehensive assessment, which then gives us the ability to see exactly what the problems are, whether it's a medical problem, whether it's a psychosocial problem, whether it's a behavioral health problem,

and we can develop care plans that are really individually specific to the patient's needs, as well as interventions that we can employ to help those patients meet those goals of the care plans." – ACO care management staff

At the other end of continuum, ACOs used care plans primarily as a patient coaching and engagement tool. While these ACOs included clinical aspects in their care plans, the motivation and approach were driven by patient coaching. One ACO created "shared action plans" after patients had a 2-hour visit with care coordinators that focused on developing patient-centric goals such as walking to the mailbox or going on a vacation. Another ACO described their motivation for developing care plans:

"Our care coordinators help patients set their own personal goals that they want to achieve as part of, not only what the doctor has indicated the goals they need to meet, but what are their own personal goals that they wanna reach? And ensuring that we're addressing their psychosocial as well as their clinical needs. We've seen that addressing their social determinants of health. Sitting down with them and figuring out, what are the barriers to care, what's causing them to visit the emergency room or not come in for a visit or reasons why they don't pick up their medications, trying to identify those underlying issues." – ACO management

Care plan elements

Patient history

Patient histories ranged in their comprehensiveness and included elements such as immunization records, lab and test results, utilization, past procedures or social histories. ACOs prioritized and

included patient information that they thought would be most useful in delivering care, as one ACO noted "whatever might be pertinent to that particular patient's health situation." (ACO executive). For example, one ACO initially focused primarily on the patient's social history, such as employment, living situation, and family status, with less of an emphasis on clinical markers.

Current clinical needs

Organizing and documenting current medical needs into a centralized location was often the predominant focus of care plans. Most ACOs included information about current medications – some were focused on listing medications, others regularly reviewed medication lists with patients, and some actively reconciled medications. In addition to general history, care plans highlighted information about recent health care utilization, especially costly hospital-based care to better understand patient needs. As one ACO explained:

> "one of the categories was making sure that the longitudinal plan of care served up ED visits and hospitalizations.... That [utilization] would be really relevant for a care team member who's interested in what's happening to the patient right now." – ACO executive

Many ACOs included specialist care in the patient's care plan. In most cases, ACOs simply asked the patient for information to document their specialist providers as well as any upcoming visits. Other ACOs, such as those integrated with a larger system, had greater coordination with specialist care. For example, one ACO indicated patient care plans were fully accessible and integrated with both primary care and specialist care within their health care system.

Patient goals

Care plans often included patient clinical goals that were aligned with specific conditions or patient needs such as controlling clinical markers. A couple ACOs described robust algorithms that used the patient's current health markers to generate clinical goals such as identifying specific targets to more optimally control blood pressure or blood sugar.

Seven ACOs referenced patient-developed goals as part of the care plan. One ACO explained:

> "Yeah, we let the patient talk freely about maybe a goal they want to set for themselves and we couple this with the understanding of where their engagement level is because if the patient PAM [patient activation] score is a level one, they're very disconnected from their health needs and they're not engaged so it might be learning what they are engaged with, or maybe they're worried about something, or one gentleman all he wanted to do was get to his granddaughter's first birthday and he was estranged from his daughter and there was a lot of dynamics there. But if you begin working on those and breaking down the barriers there you can build up a confidence level and a trust level with the care coordinator and pretty soon your interjecting, oh but if you try this [quit] line you could maybe not need your oxygen as often and not smoke." – ACO executive

ACOs defined what was considered a patient goal differently. For some ACOs, patient developed goals meant that the patient prioritized which clinical goal to address. For other ACOs, goals could be completely patient generated and not necessarily clinical in nature. For example:

"…pieces of their care plan that are specific to what might be important to them. We've had people say, 'It's important to me that I stay in my home,' so we might work with and recommend an in-home safety evaluation..." – ACO management

Access and use of plans by the care team

ACOs offered little information on if and how care team members accessed patient care plans. Physicians often had limited engagement in care management programs at ACOs - which care plans were typically a part of - because care management programs were often centralized at the ACO-level with most activities occurring independent of primary care (e.g., care managers directly calling patients). Interviewees did not see this as a challenge or limitation to care plans, but rather as a way to minimize burden on clinical care teams. Care plans were viewed and used as a valuable tool for care management staff as they operated in parallel with the physicians and other care team members.

Only two ACOs explicitly reported that patient care plans were accessed by physician providers: one of those ACOs actively included physicians in the development and implementation of standardized care plans. In this case, plans were first created by a care manager and then embedded in the electronic health record so that anyone accessing a patient's record first saw the care plan. Care plans were automatically updated when the patient's record was modified. Other ACOs embedded care plans in their care management platform. While physicians and other care team members could access those platforms, interviewees were uncertain if physicians actually looked at the care plans. One ACO specifically reported that they no longer gave access to all

primary care physicians due to a lack of care management software interoperability with practices' electronic health records.

Discussion

Personalized, comprehensive patient care plans are promoted as a key tool to ensuring high-quality, advanced primary care is delivered by helping care teams manage patients with complex clinical or social needs through effectively addressing care needs across different settings and emphasizing patient goals and preferences.[5,9-11,15-18,31-33] Most interviewed ACOs developed care plans as part of broader care management programs, and patient care plans were most commonly maintained and used by care managers. While all ACOs included the same core elements of care plans – the patient's history, current clinical needs, and future management goals – the depth and comprehensiveness of these elements varied. Some ACOs used care plans to predominately help the care team organize patient information while other ACOs also used care plans as a tool to engage patients. We observed three broad approaches to the way care plans were created and used: as a tool for providers, as a tool for patient engagement and coaching, and as tool for both patients and providers.

Our findings suggest providers may struggle to implement care plans that are developed across care settings and are aligned with patient-driven goals. This may be due to separation of care management programming from clinical care coupled with care management focused usage of care plans. Prior studies found that care plans can be modestly effective at improving patient outcomes and controlling costs when both providers and patients are engaged in the development and use of the plan.[11] When care plans integrate the perspectives of both the patient and the care

team, including primary and specialty care, they are more likely to optimally align clinical and patient goals.[6,16,17,19,33,34] Yet, even though many ACOs approached care plans as a collaborative process between patients and the care team, several approached care plans primarily as a tool to organize patient care for the providers. While care plans should certainly serve as a centralized location to record patient care, the most successful plans also catalyze patient engagement.[17] There is wide agreement among research findings and patient advocates that outcomes are improved when patients are actively engaged in the decision-making and planning around their care, but this was not consistently happening among the ACOs we interviewed.[15,17,18,35]

Team-based care is a widely used approach to manage the care of patients with complex clinical needs.[35-38] It is not surprising that most of the ACOs we interviewed relied upon a range of care team members, such as care coordinators, medical assistants, and health coaches, to develop care plans. Non-clinicians extend the reach of primary care to ensure patients can receive more intensive and frequent care as needed.[39,40] The optimal role and engagement between such care team members and clinicians in developing patient care plans is less certain. Only a couple of the ACOs we interviewed explicitly described if and how primary care clinicians regularly accessed patient care plans. At those ACOs, clinicians were centrally involved in patient care planning. In other interviewed ACOs, they noted primary care providers might or could have access to care plans, but did not suggest that the access was utilized, indicating clinicians were not centrally engaged in developing, reviewing, or implementing patient care plans. The work of documenting and developing care plans may not be the most efficient use of a clinician's time, yet clinician access to this information could help them deliver care that better incorporates patient's goals and coordinates across clinical settings. While it is uncertain how clinicians should be optimally

engaged in such patient management activities, many suggest that high functioning care teams should regularly communicate with one another to ensure patient care is effectively coordinated.[16,36,41]

Our study highlights the challenges of coordinating care across several providers – care plans, and ACO goals more generally, aim to centralize and coordinate care across various settings and specialties.[22] Patients with complex health needs may have several specialist providers in addition to their primary care provider– Medicare beneficiaries with two or fewer chronic conditions typically visit three clinicians in a year compared with eleven for those with seven or more chronic conditions[2] - given challenges associated with care silos, lack of interoperability, and communication among providers, it is not surprising ACOs struggled to document specialist care within care plans.[3,33] Most ACOs had to rely on patients to tell them about upcoming or recent specialist appointments. Only two ACOs, both part of highly centralized healthcare delivery systems, which are only half of ACOs in 2018,[42] implemented system-wide initiatives to fully integrate specialist and primary care clinicians into care plans. Even ACOs which include hospitals in their contract may struggle to coordinate care across settings and they report similar care delivery capabilities as ACOs without a hospital.[39] Given these obstacles, providers participating in ACOs and advanced primary care models, such as CPC+ and Primary Care First, may struggle to realize the potential of care plans without greater support from policymakers and others to address integration and communication challenges.[12-14,32]

Care plans can serve as the centralized place for comprehensive clinical and social information on a given patient for the broader care team to access, review, and update as needed.[5,9-11,15-

[18,21,31,43] A group of key stakeholders recently developed a set of guidelines for care plans – they conceptualized care plans as proactively addressing patients' total health needs such that the plan becomes the cornerstone tool for identifying and developing ways to resolve patients' total health needs.[15] Our findings on the role of the patient in developing the care plan, the accessibility of care plans by clinicians, and the challenges of coordinating across care settings, raises questions on the centrality of patient care plans within ACO primary care today, where in theory practices should be most motivated to engage in these activities.[44] Among ACOs we interviewed, care plans, even at their most comprehensive form, were still fragmented such that key pieces were either inaccessible or missing. Care plans which do not actively engage patients in the development of goals cannot proactively address patient needs, and plans that are not used by the entire care team, such as clinicians, cannot serve as the central basis for all patient care. Few, if any, of the ACOs we interviewed used care plans as policymakers, scholars, and others envisioned. To successfully evaluate the impact of care plans and establish best practices, researchers need to consider how health care organizations operationalize care plans in further studies.

Our study has limitations – first, as a qualitative study, our results should not be generalized to all ACOs or providers. These findings can provide insights into the approaches some ACOs use to implement personalized care plans and can be used to develop hypotheses about the value of care planning within ACOs. Some of our data are from the perspective of executives and managers at ACOs with less information from frontline clinicians which could impact our understanding of how much clinicians are involved in patient care plans. Finally, we do not have data on the effectiveness of these care plans because our study focused on identifying and

describing the approaches used to implement care plans. ACOs indicated they believed patient care plans helped them provide better patient care.

Our study offers valuable insights for frontline clinicians and policymakers by identifying approaches ACOs use to implement care plans. Our study suggests that patient care plans may not always align with prescribed best practices: a tool to collaboratively develop centralized documentation and goals that integrate perspectives of primary care, specialist care, and the patient. Rather ACOs may be adapting care plans to create value for both their patients and their organization. Providers and payers should consider the optimal engagement of clinicians, other care team members, and patients in care planning. As clinicians experience increasingly complex patient populations, a changing health care environment, and policies aimed at controlling costs while increasing quality – they need effective strategies to enhance care delivery.

Acknowledgements

Funders

We are grateful for support from the Six Foundation Collaborative: The Commonwealth Fund, Grant ID: 20171072; Peterson Center on Healthcare, Grant ID: 18011; The Robert Wood Johnson Foundation, Grant ID: 74883; The SCAN Foundation, Grant ID: 17-013; The John A. Hartford Foundation; and the Milbank Memorial Fund.

This work was supported by the Agency for Healthcare Research and Quality's (AHRQ's) Comparative Health System Performance Initiative under Grant # U19HS024075, which studies how health care delivery systems promote evidence-based practices and patient-centered outcomes research in delivering care.

Adam Briggs was a Harkness Fellow funded by the Commonwealth Fund.

Prior presentations

A portion of this manuscript was presented at the AcademyHealth Annual Research Meeting in Washington DC on June 2, 2019.

Conflicts of interest

The authors have no conflicts of interest to declare.

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Legends for Figures

Figure 1: Scope and function of care plans used by ACOs

Figure 1

Goals	Condition Driven	Condition + Patient Driven	Patient Driven
Function	Clinical Snapshot	Clinical + Social Needs	Patient Activation

Translating Evidence into Practice:

ACOs' Use of Care Plans for Patients with Complex Health Needs

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References: 43

Tables: 0

Figures: 1

Appendices: 1

Article word count (including quotations): 3954

Abstract word count: 247

Key words: primary care, accountable care organizations, complex patients, care plans

Running title: ACO's use of care plans

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Abstract

Background

Care plans are an evidence-based strategy, encouraged by the Centers for Medicare and Medicaid Services, used to manage the care of patients with complex health needs that have been shown to lead to lower hospital costs and improved patient outcomes. Providers participating in payment reform, such as accountable care organizations, may be more likely to adopt care plans to manage complex patients.

Objective

To understand how Medicare ACOs use care plans to manage patients with complex clinical needs.

Design

A qualitative study using semi-structured interviews with Medicare ACOs.

Participants

39 interviews were conducted across 18 Medicare ACOs with executive-level leaders and associated clinical and managerial staff.

Approach

Development, structure, use and management of care plans for complex patients at Medicare ACOs.

Key Results

Most (11) of the interviewed ACOs reported using care plans to manage care of complex patients. All care plans include information about patient history, current medical needs, and future care plans. Beyond the core elements, care plans included elements based on the ACO's

planned use and level of staff and patient engagement with care planning. Most care plans were developed and maintained by care management (not clinical) staff.

Conclusions

ACOs are using care plans for patients with complex needs but their use of care plans does not always meet the best practices. In many cases, ACO usage of care plans does not align with prescribed best practices: ACOs are adapting use of care plans to better fit the needs of patients and providers.

Introduction

Traditional physician-patient relationships included many aspects of patient care that can be lost in today's fragmented or team delivery models. Physicians that have long-term relationships with patients understand their histories, life situations, and goals. Yet, on average, Medicare patients see an increasing array of clinicians, both in number and specialty.[1,2] This is especially the case for patients with complex health needs[3] – such as those with multiple chronic conditions, serious illnesses, or behavioral health needs – and these patients drive much of health care spending.[4] Complex patients may need more intensive, frequent, coordinated, and comprehensive health care that is targeted to their clinical and socioeconomic concerns, and a thorough understanding of their history, needs, and goals is vital to successful care.[5-8]

Comprehensive patient care plans are an evidence-based tool used to clinically manage patients with complex health needs. Care plans can modestly improve patients' clinical and psychosocial markers including blood pressure control, depression symptoms, and perceived ability to self-manage health.[9,10] A recent systematic review that examined 19 randomized control trials found that personalized care plans are likely most effective when interventions are more comprehensive, intense, and integrated into routine care.[9] Across studies, the effects of care planning were modest – for example, they found moderate quality evidence for the impact of care planning on glycated hemoglobin (HbA1c) across nine studies (mean difference between intervention and control of -0.24%).[9] In addition to improving clinical markers, care plans are used with the goal of reducing unnecessary hospital-based utilization. There is some evidence which suggests care plans may reduce subsequent inpatient stays - in a pre-post design one study found a significant decrease in hospital stays (56% reduction at 6 months) and 30-day

readmissions (66% reduction at 6 months), but more rigorous research is needed to fully understand the impact of care plans on utilization outcomes.[11]

With the hope of improving quality outcomes while reducing costs, the Centers for Medicare and Medicaid Services (CMS) has embraced the use of care plans as a marker of advanced primary care by requiring providers to use them when billing under Chronic Care Management codes[12] as well as part of the CPC+[13] and the new Primary Care First models.[14] Care plans are ideally developed after consultation with the patient and in collaboration with their broader care team including primary and specialist care.[15] Care plans should serve as the centralized landing space for a given patient to ensure all care team members can easily access and contribute to comprehensive information about the patient including the patient's history, current clinical and non-clinical needs, and goals;[5,15-18] and they should be driven by a patient's personal preferences and aligned with their clinical needs.[5,17,19-21]

Medicare, Medicaid and commercial payers are using alternative payment models, such as accountable care organizations (ACOs) and medical homes, to promote accountability for patient needs across the care spectrum. Providers under value-based contracts have incentives to implement evidence-based interventions, such as patient care plans, that are not directly reimbursable but may impact overall spending and quality of care.[22] While Medicare's ACO models have shown modest reductions in total costs of care, evidence suggests that savings may be more substantial for patients with complex clinical needs.[23] Patients with complex health needs may benefit the most from care delivery transformations associated with payment reform;

therefore, ACOs may use care plans as a way to realize savings via patients with complex needs who typically drive healthcare costs.[24]

Payers are also introducing chronic condition management billing codes,[12] special needs plans, and advanced primary care models[13,14] to promote specialized care for complex patients.[25] Yet, there is little understanding of how providers use care plans in routine clinical settings.[26,27] Previous studies have typically assessed care plans as part of formalized, multifaceted interventions and have shown modest improvements to physical health, but little is known about how care plans are used outside of these formal programs.[9,10] Frontline providers may struggle to implement care plans using best practices – including collaborative development between primary care, specialist care, and patients – identified in previous research. In this study, we use qualitative interviews to describe how Medicare ACO providers, who have been successful at meeting savings and quality benchmarks, develop and implement processes around care plans for patients with complex health needs.

Methods

We conducted 39 semi-structured interviews with 18 ACOs to understand their processes and strategies for caring for patients with complex health needs. In each ACO, we first conducted an interview with ACO leaders such as the Director, Chief Medical Officer, or other executive-level individual. All interviewed ACOs were invited to complete a second round of interviews with care managers, directors of care management programs, practice leaders, or others suggested by ACO executives. Eleven ACOs agreed to participate in follow-up interviews with frontline staff, we conducted an additional 21 interviews. The second round of interviews aimed to identify

individuals with on-the-ground experience of the ACO's approaches for caring for patients with complex health needs. The online appendix provides more detail on the characteristics of interviewed ACOs.

Interviews were conducted via telephone between February and June 2018. All interviews were recorded and transcribed, and then analyzed using QRS NVivo.[28] ACOs were selected from respondents to the National Survey of ACOs and limited to those with a Medicare Shared Savings Program (MSSP) contract that achieved shared savings in at least one year.[29] We used an iterative outreach process to achieve diversity in terms of geography, composition, ownership, and payer. Of the interviewed ACOs, 13 had at least one additional ACO contract with a commercial or Medicaid payer. Semi-structured interviews lasted approximately one hour and included information on the ACO structure, leadership, governance, engagement with primary care practices, and approaches to caring for complex patients.

We identified 11 ACOs that used care plans for patients with complex health needs. We defined a care plan as a written document created by a member of the patient's care team and developed based on interaction with the patient (i.e., not *solely* data driven). To be included in our analyses, care plans must have included information on the patient's medical history, current clinical needs, and future management of the patient.[9,15,17]

Our analytic approach was collaborative and iterative.[30] All transcripts were first coded by a research assistant and then coded unblinded by the first author, any coding discrepancies were discussed. We developed a detailed memo of results based on initial coding that identified

themes and findings across ACOs, with examples to support each theme. The memo was iteratively revised based on team discussion, and further review and coding of the data.

Results

In the 11 ACOs that used care plans, they were typically created as part of a broader care management program. Patients under care management included those: (1) with frequent hospital-based utilization such as inpatient stays or emergency department visits; (2) with multiple chronic conditions; (3) with high costs; or (4) identified by algorithms or providers as high-risk for costs or utilization. Care management staff – including medical assistants, health coaches, care managers, and care coordinators – were generally responsible for developing and maintaining care plans. While primary care and specialist physician providers may utilize or review care plans, they were not responsible for developing care plans at any of the interviewed ACOs.

Core functions and scope of care plans

The scope of care plans and the processes used to develop them varied along a continuum based on how ACOs described the core functions of care plans – ranging from care plans predominantly used as a tool to aid the care team to care plans as a tool for patient engagement (Figure 1). Most ACOs used care plans as either a blend of condition and patient driven or as predominantly patient driven. Few used them as solely a tool to aid the care team in organizing and sharing patient information. These care plans typically functioned to provide a snapshot of the patient. For example, one ACO described their care plan as a "landing space" for providers, with a dashboard of important data points:

> "We've added customizations [to their health record], so you can quickly see the risk of readmission, other risk factors, the Gagne risk score, the care manager risk score, you can see a summary of their medications, you can see a summary of their encounters. It's somewhat of a landing place." – ACO executive

At this end of the continuum, care plans typically relied on condition-based guidelines to develop patient goals and aimed to improve specific and measurable aspects of patient health. As part of their disease management program, one ACO used software developed from evidence-based clinical guidelines to automatically generate care plans and goals from the patient's history and current clinical markers. These care plans only addressed clinical needs and were minimally modified based on the patient's priorities, for example, goals were based on identified patient care gaps such as immunizations or upcoming lab tests.

Along the middle of the continuum, where care plans were designed to help the care team address clinical needs and as a tool to engage patients, care plans tended to be more comprehensive and required greater involvement of both staff and patients. These blended care plans typically involved non-clinical elements such as social needs and patient activation. One ACO included information about patients' medical conditions, preventive care needs, social needs (e.g., transportation or housing), substance use, and whether the patient wears glasses or hearing aids. Another ACO used standard patient assessment tools including patient activation measures. One ACO described:

> "We're able to go in at that time frame and do that comprehensive assessment, which then gives us the ability to see exactly what the problems are, whether it's a medical problem, whether it's a psychosocial problem, whether it's a behavioral health problem,

and we can develop care plans that are really individually specific to the patient's needs, as well as interventions that we can employ to help those patients meet those goals of the care plans." – ACO care management staff

At the other end of continuum, ACOs used care plans primarily as a patient coaching and engagement tool. While these ACOs included clinical aspects in their care plans, the motivation and approach were driven by patient coaching. One ACO created "shared action plans" after patients had a 2-hour visit with care coordinators that focused on developing patient-centric goals such as walking to the mailbox or going on a vacation. Another ACO described their motivation for developing care plans:

"Our care coordinators help patients set their own personal goals that they want to achieve as part of, not only what the doctor has indicated the goals they need to meet, but what are their own personal goals that they wanna reach? And ensuring that we're addressing their psychosocial as well as their clinical needs. We've seen that addressing their social determinants of health. Sitting down with them and figuring out, what are the barriers to care, what's causing them to visit the emergency room or not come in for a visit or reasons why they don't pick up their medications, trying to identify those underlying issues." – ACO management

Care plan elements

Patient history

Patient histories ranged in their comprehensiveness and included elements such as immunization records, lab and test results, utilization, past procedures or social histories. ACOs prioritized and

included patient information that they thought would be most useful in delivering care, as one ACO noted "whatever might be pertinent to that particular patient's health situation." (ACO executive). For example, one ACO initially focused primarily on the patient's social history, such as employment, living situation, and family status, with less of an emphasis on clinical markers.

Current clinical needs

Organizing and documenting current medical needs into a centralized location was often the predominant focus of care plans. Most ACOs included information about current medications – some were focused on listing medications, others regularly reviewed medication lists with patients, and some actively reconciled medications. In addition to general history, care plans highlighted information about recent health care utilization, especially costly hospital-based care to better understand patient needs. As one ACO explained:

> "one of the categories was making sure that the longitudinal plan of care served up ED visits and hospitalizations.... That [utilization] would be really relevant for a care team member who's interested in what's happening to the patient right now." – ACO executive

Many ACOs included specialist care in the patient's care plan. In most cases, ACOs simply asked the patient for information to document their specialist providers as well as any upcoming visits. Other ACOs, such as those integrated with a larger system, had greater coordination with specialist care. For example, one ACO indicated patient care plans were fully accessible and integrated with both primary care and specialist care within their health care system.

Patient goals

Care plans often included patient clinical goals that were aligned with specific conditions or patient needs such as controlling clinical markers. A couple ACOs described robust algorithms that used the patient's current health markers to generate clinical goals such as identifying specific targets to more optimally control blood pressure or blood sugar.

Seven ACOs referenced patient-developed goals as part of the care plan. One ACO explained:

> "Yeah, we let the patient talk freely about maybe a goal they want to set for themselves and we couple this with the understanding of where their engagement level is because if the patient PAM [patient activation] score is a level one, they're very disconnected from their health needs and they're not engaged so it might be learning what they are engaged with, or maybe they're worried about something, or one gentleman all he wanted to do was get to his granddaughter's first birthday and he was estranged from his daughter and there was a lot of dynamics there. But if you begin working on those and breaking down the barriers there you can build up a confidence level and a trust level with the care coordinator and pretty soon your interjecting, oh but if you try this [quit] line you could maybe not need your oxygen as often and not smoke." – ACO executive

ACOs defined what was considered a patient goal differently. For some ACOs, patient developed goals meant that the patient prioritized which clinical goal to address. For other ACOs, goals could be completely patient generated and not necessarily clinical in nature. For example:

"…pieces of their care plan that are specific to what might be important to them. We've had people say, 'It's important to me that I stay in my home,' so we might work with and recommend an in-home safety evaluation..." – ACO management

Access and use of plans by the care team

ACOs offered little information on if and how care team members accessed patient care plans. Physicians often had limited engagement in care management programs at ACOs - which care plans were typically a part of - because care management programs were often centralized at the ACO-level with most activities occurring independent of primary care (e.g., care managers directly calling patients). Interviewees did not see this as a challenge or limitation to care plans, but rather as a way to minimize burden on clinical care teams. Care plans were viewed and used as a valuable tool for care management staff as they operated in parallel with the physicians and other care team members.

Only two ACOs explicitly reported that patient care plans were accessed by physician providers: one of those ACOs actively included physicians in the development and implementation of standardized care plans. In this case, plans were first created by a care manager and then embedded in the electronic health record so that anyone accessing a patient's record first saw the care plan. Care plans were automatically updated when the patient's record was modified. Other ACOs embedded care plans in their care management platform. While physicians and other care team members could access those platforms, interviewees were uncertain if physicians actually looked at the care plans. One ACO specifically reported that they no longer gave access to all

primary care physicians due to a lack of care management software interoperability with practices' electronic health records.

Discussion

Personalized, comprehensive patient care plans are promoted as a key tool to ensuring high-quality, advanced primary care is delivered by helping care teams manage patients with complex clinical or social needs through effectively addressing care needs across different settings and emphasizing patient goals and preferences.[5,9-11,15-18,31-33] Most interviewed ACOs developed care plans as part of broader care management programs, and patient care plans were most commonly maintained and used by care managers. While all ACOs included the same core elements of care plans – the patient's history, current clinical needs, and future management goals – the depth and comprehensiveness of these elements varied. Some ACOs used care plans to predominately help the care team organize patient information while other ACOs also used care plans as a tool to engage patients. We observed three broad approaches to the way care plans were created and used: as a tool for providers, as a tool for patient engagement and coaching, and as tool for both patients and providers.

Our findings suggest providers may struggle to implement care plans that are developed across care settings and are aligned with patient-driven goals. This may be due to separation of care management programming from clinical care coupled with care management focused usage of care plans. Prior studies found that care plans can be modestly effective at improving patient outcomes and controlling costs when both providers and patients are engaged in the development and use of the plan.[11] When care plans integrate the perspectives of both the patient and the care

team, including primary and specialty care, they are more likely to optimally align clinical and patient goals.[6,16,17,19,33,34] Yet, even though many ACOs approached care plans as a collaborative process between patients and the care team, several approached care plans primarily as a tool to organize patient care for the providers. While care plans should certainly serve as a centralized location to record patient care, the most successful plans also catalyze patient engagement.[17] There is wide agreement among research findings and patient advocates that outcomes are improved when patients are actively engaged in the decision-making and planning around their care, but this was not consistently happening among the ACOs we interviewed.[15,17,18,35]

Team-based care is a widely used approach to manage the care of patients with complex clinical needs.[35-38] It is not surprising that most of the ACOs we interviewed relied upon a range of care team members, such as care coordinators, medical assistants, and health coaches, to develop care plans. Non-clinicians extend the reach of primary care to ensure patients can receive more intensive and frequent care as needed.[39,40] The optimal role and engagement between such care team members and clinicians in developing patient care plans is less certain. Only a couple of the ACOs we interviewed explicitly described if and how primary care clinicians regularly accessed patient care plans. At those ACOs, clinicians were centrally involved in patient care planning. In other interviewed ACOs, they noted primary care providers might or could have access to care plans, but did not suggest that the access was utilized, indicating clinicians were not centrally engaged in developing, reviewing, or implementing patient care plans. The work of documenting and developing care plans may not be the most efficient use of a clinician's time, yet clinician access to this information could help them deliver care that better incorporates patient's goals and coordinates across clinical settings. While it is uncertain how clinicians should be optimally

engaged in such patient management activities, many suggest that high functioning care teams should regularly communicate with one another to ensure patient care is effectively coordinated.[16,36,41]

Our study highlights the challenges of coordinating care across several providers – care plans, and ACO goals more generally, aim to centralize and coordinate care across various settings and specialties.[22] Patients with complex health needs may have several specialist providers in addition to their primary care provider– Medicare beneficiaries with two or fewer chronic conditions typically visit three clinicians in a year compared with eleven for those with seven or more chronic conditions[2] - given challenges associated with care silos, lack of interoperability, and communication among providers, it is not surprising ACOs struggled to document specialist care within care plans.[3,33] Most ACOs had to rely on patients to tell them about upcoming or recent specialist appointments. Only two ACOs, both part of highly centralized healthcare delivery systems, which are only half of ACOs in 2018,[42] implemented system-wide initiatives to fully integrate specialist and primary care clinicians into care plans. Even ACOs which include hospitals in their contract may struggle to coordinate care across settings and they report similar care delivery capabilities as ACOs without a hospital.[39] Given these obstacles, providers participating in ACOs and advanced primary care models, such as CPC+ and Primary Care First, may struggle to realize the potential of care plans without greater support from policymakers and others to address integration and communication challenges.[12-14,32]

Care plans can serve as the centralized place for comprehensive clinical and social information on a given patient for the broader care team to access, review, and update as needed.[5,9-11,15-

[18,21,31,43] A group of key stakeholders recently developed a set of guidelines for care plans – they conceptualized care plans as proactively addressing patients' total health needs such that the plan becomes the cornerstone tool for identifying and developing ways to resolve patients' total health needs.[15] Our findings on the role of the patient in developing the care plan, the accessibility of care plans by clinicians, and the challenges of coordinating across care settings, raises questions on the centrality of patient care plans within ACO primary care today, where in theory practices should be most motivated to engage in these activities.[44] Among ACOs we interviewed, care plans, even at their most comprehensive form, were still fragmented such that key pieces were either inaccessible or missing. Care plans which do not actively engage patients in the development of goals cannot proactively address patient needs, and plans that are not used by the entire care team, such as clinicians, cannot serve as the central basis for all patient care. Few, if any, of the ACOs we interviewed used care plans as policymakers, scholars, and others envisioned. To successfully evaluate the impact of care plans and establish best practices, researchers need to consider how health care organizations operationalize care plans in further studies.

Our study has limitations – first, as a qualitative study, our results should not be generalized to all ACOs or providers. These findings can provide insights into the approaches some ACOs use to implement personalized care plans and can be used to develop hypotheses about the value of care planning within ACOs. Some of our data are from the perspective of executives and managers at ACOs with less information from frontline clinicians which could impact our understanding of how much clinicians are involved in patient care plans. Finally, we do not have data on the effectiveness of these care plans because our study focused on identifying and

describing the approaches used to implement care plans. ACOs indicated they believed patient care plans helped them provide better patient care.

Our study offers valuable insights for frontline clinicians and policymakers by identifying approaches ACOs use to implement care plans. Our study suggests that patient care plans may not always align with prescribed best practices: a tool to collaboratively develop centralized documentation and goals that integrate perspectives of primary care, specialist care, and the patient. Rather ACOs may be adapting care plans to create value for both their patients and their organization. Providers and payers should consider the optimal engagement of clinicians, other care team members, and patients in care planning. As clinicians experience increasingly complex patient populations, a changing health care environment, and policies aimed at controlling costs while increasing quality – they need effective strategies to enhance care delivery.

Acknowledgements

Funders

We are grateful for support from the Six Foundation Collaborative: The Commonwealth Fund, Grant ID: 20171072; ~~The~~ Peterson Center on Healthcare, Grant ID: 18011; The Robert Wood Johnson Foundation, Grant ID: 74883; The SCAN Foundation, Grant ID: 17-013; The John A. Hartford Foundation; and the Milbank Memorial Fund.

This work was supported by the Agency for Healthcare Research and Quality's (AHRQ's) Comparative Health System Performance Initiative under Grant # U19HS024075, which studies how health care delivery systems promote evidence-based practices and patient-centered outcomes research in delivering care.

Adam Briggs was a Harkness Fellow funded by the Commonwealth Fund.

Prior presentations

A portion of this manuscript was presented at the AcademyHealth Annual Research Meeting in Washington DC on June 2, 2019.

Conflicts of interest

The authors have no conflicts of interest to declare.

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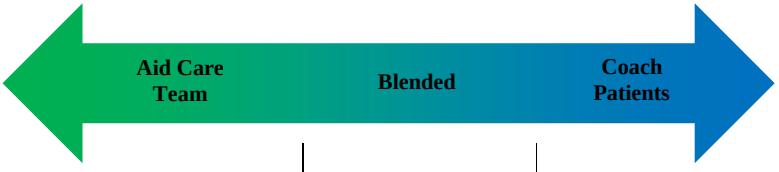
Legends for Figures

Figure 1: Scope and function of care plans used by ACOs

Figure 1



Goals	Condition Driven	Condition + Patient Driven	Patient Driven
Function	Clinical Snapshot	Clinical + Social Needs	Patient Activation