Care Coordination Measures Atlas

Chapter 2. What is Care Coordination?

Care coordination means different things to different people; no consensus definition has fully evolved. A recent systematic review identified over 40 definitions of the term "care coordination."[2] The systematic review authors combined the common elements from many definitions to develop one working definition for use in identifying reviews of interventions in the vicinity of care coordination and, as a result, developed a purposely broad definition: *"Care coordination is the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services. Organizing care involves the marshalling of personnel and other resources needed to carry out all required patient care activities and is often managed by the exchange of information among participants responsible for different aspects of care."* For some purposes, they noted that other definitions may be more appropriate. This lack of consensus is perhaps not surprising given the many different participants involved in coordinating care.

In this section we provide a visual definition (go to Figure 1) and scenarios to help illustrate care coordination in the absence of a consensus definition. This visual definition may be helpful to some *Atlas* users, and less so to others. Several additional illustrations of care coordination are presented in a recent monograph on quality of cancer care.[3]

The *central goal* of care coordination is shown in the middle of the diagram. The *colored circles* represent some of the possible participants, settings, and information important to care pathways and workflow. The *blue ring* that connects the *colored circles* is Care Coordination—namely, anything that bridges gaps (white spaces) along the care pathway (i.e., care coordination activities or broad approaches hypothesized to improve coordination of care). For a given patient at a given point in time, the bridges or *ring* need to form across the applicable *circles*, and through any *gaps* within a given circle, to deliver coordinated care.

Return to Contents

Perspectives on Care Coordination

Successes and failures in care coordination will be perceived (and may be measured) in different ways depending on the perspective: patient/family, health care professional(s), or system representative(s). Consideration of views from these three potentially different perspectives is likely to be important for measuring care coordination comprehensively.

Patient/Family Perspective. Care coordination is any activity that helps ensure that the patient's needs and preferences for health services and information sharing across people, functions, and sites are met over time.[4]

Patients, their families, and other informal caregivers experience failures in coordination particularly at points of transition. Transitions may occur between health care entities (see definition under "additional terms") and over time and are characterized by shifts in responsibility and information flow. Patients perceive failures in terms of unreasonable levels of effort required on the part of themselves or their informal caregivers in order to meet care needs during transitions among health care entities.

Health Care Professional(s) Perspective. Care coordination is a patient- and family-centered, team-based activity designed to assess and meet the needs of patients, while helping them navigate effectively and efficiently through the health

care system. Clinical coordination involves determining where to send the patient next (e.g., sequencing among specialists), what information about the patient is necessary to transfer among health care entities, and how accountability and responsibility is managed among all health care professionals (doctors, nurses, social workers, care managers, supporting staff, etc.). Care coordination addresses potential gaps in meeting patients' interrelated medical, social, developmental, behavioral, educational, informal support system, and financial needs in order to achieve optimal health, wellness, or end-of-life outcomes, according to patient preferences.[5]

Health care professionals notice failures in coordination particularly when the patient is directed to the "wrong" place in the health care system or has a poor health outcome as a result of poor handoffs or inadequate information exchanges. They also perceive failures in terms of unreasonable levels of effort required on their part in order to accomplish necessary levels of coordination during transitions among health care entities.

System Representative(s) Perspective. Care coordination is the responsibility of any system of care (e.g., "accountable care organization [ACO]") to deliberately integrate personnel, information, and other resources needed to carry out all required patient care activities between and among care participants (including the patient and informal caregivers). The goal of care coordination is to facilitate the appropriate and efficient delivery of health care services both within and across systems.

Failures in coordination that affect the financial performance of the system will likely motivate corrective interventions. System representatives will also perceive a failure in coordination when a patient experiences a clinically significant mishap that results from fragmentation of care.[6]

Additional Terms. Definitions for additional terms relating to care coordination are presented below.

Health care entities. Health care entities are discrete units of the health care system that play distinct roles in delivery of care. The context and perspective will determine who precisely those units are. For example:

- From a patient and family perspective, entities are likely to be individual health care providers with whom the patient and family interact, such as nurses, physicians, and support staff.
- From a health care professional perspective, entities may be individual members of a work group, such as nurses, physicians, and support staff in a particular clinic. Or they may be provider groups, such as a primary care practice, specialty practice, or urgent care clinic.
- From a system representative(s) perspective, entities will likely be groups of providers acting together as a unit, such as medical units in a hospital, hospitals as a whole, specialty clinics within an integrated system, or different clinical settings within the health care system overall (i.e., ambulatory care, inpatient care, emergency care).

Points of transition. Transitions occur when information about or accountability/responsibility for some aspect of a patient's care is transferred between two or more health care entities, or is maintained over time by one entity. Often information and responsibility are (or should be) transferred together.

It may be useful to think about two broad categories of transitions:

1. *Transitions between entities of health care system.* Information transfer and/or responsibility shifts:
    - Among members of one care team (receptionist, nurse, physician)
    - Between patient care teams
    - Between patients/informal caregivers and professional caregivers
    - Across settings (primary care, specialty care, inpatient, emergency department)
    - Between health care organizations
2. *Transitions over time*. Information transfer and/or responsibility shifts:
    - Between episodes of care (i.e., initial visit and followup visit)
    - Across lifespan (e.g., pediatric developmental stages, women's changing reproductive cycle, geriatric care needs)
    - Across trajectory of illness and changing levels of coordination need

Figure 1. Care Coordination Ring

[D] Select for Text Description.

The *central goal* of care coordination is shown in the middle of the diagram. The colored circles represent some of the possible participants, settings, and information important to the care pathway and workflow. The blue ring connecting the colored circles is Care Coordination—namely, anything that bridges gaps (white spaces) along the care pathway (i.e., care coordination activities or broad approaches hypothesized to improve coordination of care. Go to Figure 2.). Successes and failures in care coordination will be perceived (and may be measured) in different ways depending on the perspective: *patient/family*, *health care professional(s)*, or *system representative(s)*.

Return to Contents

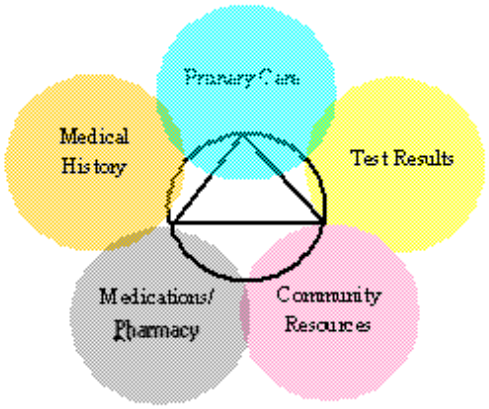
Example Scenarios

The level of care coordination need will increase with greater system fragmentation (e.g., wider gaps between circles), greater clinical complexity (e.g., greater number of circles on ring), and decreased patient capacity for participating effectively in coordinating one's own care, as illustrated by the following scenarios. The level of need is not fixed in time, nor by patient. Assessment of level of care coordination is likely important to tailor interventions appropriately and to evaluate their effectiveness.

Scenario 1. Mrs. Jones is a healthy 55-year-old woman. She visits her primary care provider, Dr. I. Care, once a year for a routine physical. Dr. Care practices in a primary care clinic with an electronic medical record (EMR) system and on-site laboratory and radiology services. At Mrs. Jones' annual physical, Dr. Care ordered several blood tests to evaluate her cholesterol and triglyceride levels. Mrs. Jones also mentioned that she is having lingering pain in her ankle after a previous sprain. Dr. Care ordered an x-ray. After receiving the blood test results via the electronic medical record system, Dr. Care sees that Mrs. Jones' cholesterol is high and prescribes a medication. She submits the prescription directly to the pharmacy via a link from the EMR. She receives electronic notification that the x-ray does not show any fracture. She calls Mrs. Jones to refer her to a nearby physical therapy practice. Mrs. Jones picks up her medication from the pharmacy and calls the physical therapist to schedule an appointment.

Scenario 1. Visual
Complexity: Low
Fragmentation: Low

Patient Capacity: High
Care Coordination Need: Minimal



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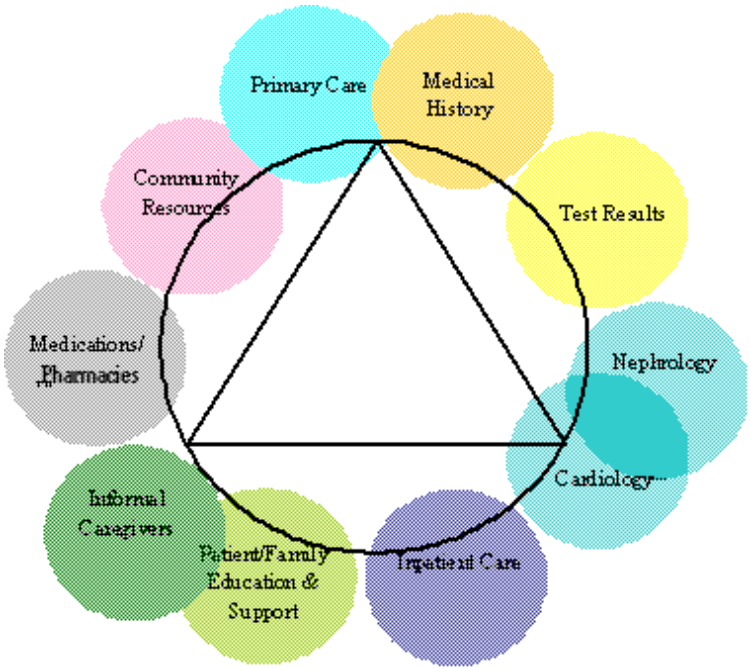
Scenario 2. Mr. Andrews is a 70-year-old man with congestive heart failure and diabetes. He uses a cane when walking and recently has had some mild memory problems. His primary care physician, Dr. Busy, is part of a small group physician practice focused on primary care. The primary care clinic includes a laboratory, but they refer their radiology tests to a nearby radiology center. Mr. Andrews also sees Dr. Kidney, a nephrologist, and Dr. Love, a cardiologist. Both specialists are part of a specialty group practice that is not affiliated with Dr. Busy's clinic. Their specialty practice includes an on-site laboratory, radiology clinic, and pharmacy. Mr. Andrews has prescriptions filled at the specialty clinic pharmacy after his appointments with Drs. Kidney and Love and picks up medications prescribed by Dr. Busy at a pharmacy near his home. Mr. Andrews has a daughter who lives nearby but works full time. Because he has trouble getting to the grocery store to do his shopping, he receives meals at his home 5 days a week through a meals-on-wheels senior support service. His daughter has hired a caregiver to help Mr. Andrews with household tasks for two hours three days a week.

During a recent meal delivery, the program staffer noticed that Mr. Andrews seemed very ill. He called an ambulance, and Mr. Andrews was taken to the emergency department. There he was diagnosed with a congestive heart failure exacerbation and was admitted. During his initial evaluation, the admitting physician asked Mr. Andrews about which medications he was taking, but the patient could not recall what they were or the doses. The physician on the hospital team contacted Dr. Busy, who provided a medical history and general list of medications. Dr. Busy noted that Mr. Andrews may have had dosing changes after a recent appointment with Dr. Love. In addition, Dr. Busy noted that Mr. Andrews may be missing medication doses because of his forgetfulness. He provided the hospital team with contact information for Drs. Love and Kidney. He also asked that a record of Mr. Andrews' hospital stay be sent to his office upon his discharge.

Mr. Andrews was discharged from the hospital one week later. Before going home, the nurse reviewed important information with him and his daughter, who was taking him home. They went over several new prescriptions and details of a low-salt diet. She told him to schedule a followup appointment with his primary care physician within 2 days and to see his cardiologist in the next 2 weeks. Mr. Andrews was very tired so his daughter picked up the prescriptions from a pharmacy near the hospital, rather than the one Mr. Andrews usually uses.

Scenario 2. Visual
Complexity: High
Fragmentation: Moderate
Patient Capacity: Low
Care Coordination Need: Extensive



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[2] McDonald KM, Sundaram V, Bravata DM,et al. Care coordination. In: Shojania KG, McDonald KM, Wachter RM, and Owens DK, eds. Closing the quality gap: A critical analysis of quality improvement strategies. Technical Review 9 (Prepared by Stanford-UCSF Evidence-Based Practice Center under contract No. 290-02-0017). Vol. 7. Rockville, MD: Agency for Healthcare Research and Quality, June 2007. AHRQ Publication No. 04(07)-0051-7.

[3] Taplin SH, Rodgers AB. Toward improving the quality of cancer care: Addressing the interfaces of primary and oncology-related subspecialty care. *J Natl Cancer Inst Monogr* 2010;40:3-10.

[4] Adapted from information published by the National Quality Forum.

[5] Adapted from information published in: Antonelli RC, McAllister JW, Popp J. Making care coordination a critical component of the pediatric healthcare system: A multidisciplinary framework. New York: The Commonwealth Fund; 2009.

[6] Adapted from information published in: McDonald KM, Sundaram V, Bravata DM, et al. Care coordination. In: Shojania KG, McDonald KM, Wachter RM, and Owens DK, eds. Closing the quality gap: A critical analysis of quality improvement strategies. Technical Review 9 (Prepared by Stanford-UCSF Evidence-Based Practice Center under contract No. 290-02-0017). Rockville, MD: Agency for Healthcare Research and Quality, June 2007. AHRQ Publication No. 04(07)-0051-7.

Return to Contents
Return to Jump Start Guide
Proceed to Next Section

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