Care coordination: what is it, what are its effects and can it be sustained?

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Care coordination is probably one of the most popular concepts in medical care today, both in practice redesign efforts and among policy makers. Although a Google search comes up with only 20 million options (far fewer than the terms care management or case management with which it is confused), it is probably one of the most important components of popular innovations like medical homes or accountable care organizations in the USA and similar ideas in other countries. Policy makers around the globe and across sectors are hoping that coordinating care will be the key to improving both technical quality and patient experience while lowering health care costs.

Fully six of the articles in this issue relate to this topic, illustrating its special importance to primary care. Yet, what is care coordination, what are its effects and can it be sustained in real primary care practices? Until we have some consensus around the answers to those questions, the implementation and maintenance of care coordination will continue to be just nice dreams.

Fortunately, we have two recent systematic reviews of care coordination. In 2007, MacDonald et al. completed a technical report on this topic for the U.S. Agency for Healthcare Research and Quality (AHRQ). The project’s objectives were to

1. Develop a working definition of care coordination
2. Conduct a systematic review of systematic reviews of care coordination through 2006
3. Identify theoretical frameworks that might ‘explain how care coordination mechanisms are influenced by factors in the health care setting and how they relate to patient outcomes and health care costs’.

They identified >40 definitions, most of which were quite different and seem to me to be either too specific or too non-specific, so they wisely created a new one. This was ‘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’. ‘Although they included another sentence that did not add much, this single sentence definition works fairly well. My only problem with it is that by inserting the clause about the patient, it seems to include any communication between any caregiver and a patient, which makes it so broad as to be useless practically. Removal of that clause makes the definition much clearer and could serve as a reasonable guide to actions.

The AHRQ report identified 75 good systematic reviews, 43 of which had their entire focus on care coordination but only half explicitly covered multiple settings. Over 80% of the systematic review authors were from the UK, Canada and the USA in nearly equal proportions, with the balance from Australia, New Zealand, Germany and Hong Kong, probably reflecting the sources of the studies they were reviewing.

The authors made the following important conclusions from these reviews:

1. There is a need for consensus definitions and conceptual models, although they identified four frameworks believed to be helpful in developing and studying coordination intervention factors.
2. A wide variety of interventions have been tested under the care coordination rubric, but ‘evidence about key intervention components is lacking’.
3. The strongest evidence shows benefit for patients with congestive heart failure, diabetes, severe mental illness, a recent stroke or depression.
4. ‘The evidence is not as clear for other patient populations that have obvious coordination needs, such as patients with multiple complex medical problems, the frail elderly living independently, patients transferring between care settings or physically disabled persons’.
5. ‘There is insufficient evidence … to draw definitive conclusions about the costs associated with care coordination interventions’.
6. Although there are at least 20 instruments and approaches to measure coordination, it is unclear which will adequately capture the key components producing benefits.
The other review by Ovretveit\textsuperscript{2} from Sweden published in 2011, a summary of the evidence for whether clinical coordination can improve quality and save money. Using a definition similar to that of the AHRQ report, some of his conclusions seem more useful to clinicians and care systems:

1. Some coordination improvements will reduce waste and improve quality, but whether this will save money or allow increased income will depend on how care providers are paid.
2. ‘The most cost-effective approaches are those that use reliable data to identify the patients most at risk of deterioration and then ensure that they get the right type of coordinated care’.
3. ‘Changes in payment systems, regulation, professional education and codes of practice are needed’.
4. Savings depend on how effectively any improvements are implemented and their timescale, not just what improvement is used.

Both these reports have a lot more information and recommendations, but they seem aimed primarily at policy makers and researchers. While both reports focus their recommendations on researchers doing more of what they usually do, I am not convinced that such efforts will produce needed answers unless such studies are evaluations of natural experiments to produce better coordinated care. Controlled trials create too many artificial limitations to be useful in studying such a complex care redesign component and studies initiated by academics too often focus on knowledge questions of interest to them rather than those needed by the people likely to fund and implement such care changes.

The studies in this issue touch on various areas related to care coordination, but none were intended as direct evaluation of it. Three articles highlight the need for primary care coordination. Glynn \textit{et al.}\textsuperscript{3} found that two of three patients >50 years of age had multimorbidity, with office visits, hospital admissions and outpatient visits and total health care costs increasing greatly for those with more than four compared to no chronic conditions. McDermott \textit{et al.}\textsuperscript{4} found that patients with chronic fatigue syndrome highly valued referral to a specialist service but that they needed more information and reassurance about the condition during the waiting period to be seen there. Vashitz \textit{et al.}\textsuperscript{5} found that physicians adhered poorly to guidelines for dyslipidaemia screening and treatment, illustrating the need for more follow-up. The problems identified by each of these studies seem likely to be greatly improved by good coordination in the primary care office, even though the authors do not explicitly come to that conclusion. Finally, Bower \textit{et al.}\textsuperscript{6} interviewed GPs and practice nurses in the UK about the challenges of caring for patients with multimorbidity. The challenges identified included limited consultation time and the need for patients to coordinate their care, both of which seem likely to be solved by a practice care coordinator.

Two other articles study models of care coordination. Genischen \textit{et al.}\textsuperscript{7} interviewed 23 family doctors involved in a larger study of practice-based health care assistants for patients with major depression in Germany. They perceived it to be beneficial for patient care, but they used different approaches to implementing the model, a variation that was not studied but might have been more beneficial for future implementers of this now well-evidenced care model. Hall \textit{et al.}\textsuperscript{8} actually conducted a modelling exercise for the shared (i.e. coordinated) care of cancer survivors between GPs and their cancer consultants. Interestingly, they found that the patients perceived potential value in such arrangements but wanted reassurance that their GPs had received extra training and were appropriately supported by the specialists.

These useful articles highlight the need for ‘the deliberate organization of patient care activities between two or more participants involved in a patient’s care to facilitate the appropriate delivery of health care services’, as noted in the AHRQ report definition.\textsuperscript{1} It seems likely that this would best be handled by someone in the primary care practice, but whether that can be financed in a sustainable way depends on natural experiments that are evaluated by researchers attuned to answering the questions of those who would compensate for the services of such people or hire and work with them.

References