

Redesigning Care for Patients At Increased Hospitalization Risk: The Comprehensive Care Physician Model

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Background

- Hospital cost reduction has been a longstanding problem in US.
- The goal is to reduce cost while improve outcome.
- In the 1990s there was a rapid shift from primary care model to current model:
 - Primary Care Model: Primary care physicians offer both hospital and ambulatory care for patients
 - Current Model: Primary care physicians limit practice to ambulatory care, while hospitalists (Physicians focusing on hospital care) provide inpatient care in hospitals
- The shift from traditional primary care model to current model was based on the idea that hospitalists are more experienced in treating inpatients and more available at hospitals compared to primary care physicians → Improve outcomes and reduce costs for hospital inpatients?
- However, studies have reported that this shift to the current model didn't result in satisfactory improvement in cost reduction and outcome improvement.
- The largest study that compared costs and outcomes between primary care model and hospitalist model did not find any difference between two groups.
 - One explanation for this is likely due to the discontinuity in care when patients are treated by different physicians unlike in traditional primary care system.
- In attempt to reduce discontinuity of care between inpatient and outpatient care, coordination interventions such as Transitional Care Model and the Care Transitions Model, which utilizes care coordinators or advanced-practice nurses to improve continuity of care → Total cost of care generally unchanged.
- Medical specialization significantly increased due to rapid increase in medical knowledge.
- The problem of specialization is the costs involved in continuity of care and coordination between specialists.
- Coordination costs include: time spent communicating, communication failures, agency problems when responsibility for outcome is diffuse.
- Lack of continuity in doctor-patient relationship can limit physician's knowledge about their patients and compromise communication, trust, and interpersonal relationships between doctors and patients.
- Greater continuity in the physician-patient relationship → improved outcomes.
- Evidence showed that hospitalized patients treated by primary care physician spend less time in Intensive Care Unit (ICU).

- Medicare patients treated by primary care physicians for more than 10 years have 15% lower costs.
- If hospital care by primary physician has better outcome, why is there growing use of hospitalists?
 - Not enough hospitalized patients for primary care physicians to spend their daily presence in the hospital (less incentive to travel to the hospital to see hospitalized patients)
 - Decreasing physician work hours, rising time costs of transport between clinics and hospitals, and improving communication technology between hospitals and clinic made it economically attractive to hand over inpatient care to hospitalists
- Dilemma: Patients may benefit from hospital care by primary physicians, however it's not economical for primary physicians.
- To find the right balance, **CCP (Comprehensive Care Physician) Model** was introduced.

Comprehensive Care Physician (CCP) Model

- In CCP model, patients at low risk of hospitalization will be only seeing physicians who only offer ambulatory care. If these patients require hospitalization, they will be cared by hospitalists while staying at the hospital.
- Patients at high risk of hospitalization will be cared by CCPs, who can offer both hospital and clinic care (A key predictor of hospitalization was a past hospital admission).
- CCP can potentially improve care at low cost for patients at increased risk of hospitalization by providing them with a physician who will care for both inpatient and outpatient settings.
- CCP also reduces the need for costly effort to coordinate care, while strengthens the doctor-patient relationship.
- The key difference between CCP model and traditional model is that the CCP model focuses on patients at high risk of hospitalization.
- The model will provide Comprehensive Care Physicians (CCPs) enough hospitalized patients while still allow them to see ambulatory care patients.
- Advantages of CCP model
 - Continuity of care
 - Maintenance of physician-patient relationship
 - Avoiding the costs of care coordination
 - Psychological rewards for a physician to care for a patient he/she already knows

Implementing CCP model

- CCP model was implemented in July 2012 at the University of Chicago Medical Centre
- It was assumed that patients would visit about five times with their CCP, and if a CCP saw about five patients in the hospital each day (~2000 patients/year), it is economical for a CCP to work several hours in the hospital each morning.
- The program was designed to include five CCPs, where each CCP covers the inpatient service during the afternoon and the weekend for one of every five weeks.

- Five CCPs work in a clinic with a clinic coordinator, social worker, registered nurse, and advanced-practice nurse.
- The effectiveness of CCP model needs to be carefully studied.
- Evidence concerning the effectiveness of CCP program is expected by 2016 (***)still not out yet).

Summary

- Cost reduction and improvement of patient outcome is a key for a successful healthcare system.
- Patient outcomes are better when hospitalized patients are treated by primary care physicians, however it is not economically attractive for physicians.
- Multiple care coordination attempts to reduce costs have failed in the past.
- CCP model aims to improve coordination of inpatient and outpatient care while lower the cost by focusing on patients at high risk of hospitalization.
- Further research is required to evaluate the effectiveness of CCP model in improving patient care while reducing costs.

Reference

Meltzer D.O., Ruhnke G.W. Redesigning care for patients at increased hospitalization risk: the Comprehensive Care Physician model. *Health Aff (Millwood)* 2014; 33(5): 770-777.