REFLECTION

The Chief Primary Care Medical Officer: Restoring Continuity

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ABSTRACT

The year 2016 marked the 20th anniversary of the hospitalist profession, with more than 50,000 physicians identifying as hospitalists. The Achilles heel of hospitalist medicine, however, is discontinuity. Despite many current payment and delivery systems rewarding this discontinuity and severing long-term relationships between patient and primary care teams at the hospital door, primary care does not stop being important when a person is admitted to the hospital. The notion of a broken primary care continuum is not an academic construct, it causes real harm to patients. As a step toward fixing the discontinuity in our health care systems, we propose that every hospital needs a Chief Primary Care Medical Officer (CPCMO), an expert in practice across the spectrum of care. The CPCMO can lead hospital efforts to create systems that ensure primary care's continuum is complete, while strengthening physician collaboration across specialties, and moving toward achieving the Quadruple Aim of enhancing patient experience, improving population health, reducing costs, and improving the work life of health care providers. For hospitals operating on value-based payment structures, anticipated improvement in measurable outcomes such as decreased length of stay, decreased readmission rates, improved transitions of care, improved patient satisfaction, improved access to primary care, and improved patient health, will enhance the rate of return on the hospital's investment. The speciality of family medicine should reevaluate our purpose, and reembrace our mission as personal physicians by championing the creation of Chief Primary Care Medical Officers.

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More than 50,000 physicians identified as hospitalists in 2016,[1] the 20th anniversary of the hospitalist profession.[2] Hospital medicine is currently the largest and fastest growing internal medicine subspecialty with an associated decline in general internists.[3] Despite unprecedented growth and keen interest in the hospitalist model among new physicians, it has challenged continuity and led to disrupted primary care.[4-13] As recently described by Wachter and Goldman, the hospitalist model is "based on the premise that the benefits of inpatient specialization and full-time hospital presence outweigh the disadvantages of a purposeful discontinuity of care. Although hospitalists have been leaders in developing systems (eg, handoff protocols, post-discharge phone calls to patients) to mitigate harm from discontinuity, it remains the model's Achilles' heel."[2(p1010)]

The discontinuity confounds efforts to create value-based systems that are accountable for population health.[14] Primary care's core tenets of comprehensiveness and continuity are critical contributors to patient and population health, yet the connection between patient and primary care physician is increasingly severed at the hospital door.[15] Hospitals must actively seek new creative solutions to address this broken primary care continuum, in order to lead health care systems to produce measurable improvements in value (eg, toward the Quadruple Aim of enhancing patient experience, improving population health, reducing costs, and

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improving the work life of health care providers).[16] We propose a solution—the Chief Primary Care Medical Officer (CPCMO).

NEGATIVE IMPACTS ON PATIENTS

For many patients and physicians, the brokenness of the primary care continuum is painfully familiar. Discontinuity impacted the woman whose primary care physician (PCP) recently retired. After a lengthy hospitalization for a hip fracture, her discharge to a skilled nursing facility was overly complicated and prolonged because she had no PCP to accept her discharge. For the uninsured man with hypoxia who presented to the emergency department, the lack of a PCP allowed no endorsable pathway except hospital admission. Learning that his CT scan findings suggested end-stage metastatic lung cancer, he said "If I have incurable cancer, I want to go home to die." But without a PCP to facilitate his discharge home with hospice, he was admitted and died in the hospital.

Current payment and delivery systems make it nearly impossible for PCPs to coordinate care transitions and support the inpatient team.[9,17] For the child hospitalized with a serious traumatic brain injury, a stronger connection between the hospitalists and his PCP could have helped create a smooth discharge plan. His hospitalist team held daily family meetings, but during times the PCP was not able to participate. The discharge plan was unrealistic and led to a readmission within days. The complex social and medical needs of high-need, high-cost patients are exemplified by a homeless, alcoholic woman with schizophrenia and uncontrolled congestive heart failure who had 8 emergency department visits in the last month.[18] After multiple handoffs to different hospitalist teams, critical details about the patient were lost, including information about her recent numerous CT scans at an outside hospital. The trusting and effective relationship with her PCP who would have helped coordinate her care—if he had been contacted—was absent, along with an opportunity to break the cycle of "super utilization."

These fictionalized examples represent missed opportunities for patient-centered care, reduced cost, and better health outcomes. Some might argue they are extreme examples and not typical, but many patients are hospitalized daily without satisfactory communication with the PCP,[19] and many hospitalizations do not actively engage the PCP.[20] Patients are discharged and told to follow-up with their PCP by hospital systems that often have little knowledge of the PCP's practice (eg, what is the PCP's information system? Is the PCP equipped to manage complex discharge plans? What professionals are on the PCP's team?). This discontinuity between hospital and clinic leads to unnecessary hospital readmissions, often without reimbursement for the readmission, and to prolonged stays.[21]

Fee-for-service payment systems reward hospitalist models and discontinuity of care, but primary care does not stop being important when an individual is admitted to the hospital.[4,13,22] Primary care does not consist only of services provided in outpatient clinical settings. Primary care encompasses an enduring, continuous, and lifelong devotion to health that belongs everywhere care is delivered.[23,24] Traditionally, the primary care function was envisioned as a PCP caring for a panel of patients in outpatient and inpatient settings.[25,26] This model has become less common in the 21st century; however, the continuity, coordination, and comprehensiveness primary care provides to patients remains of high value.[27-29] Innovation is needed to make the primary care circle whole again.[30]

A CREATIVE SOLUTION: THE CHIEF PRIMARY CARE MEDICAL OFFICER

As illustrated in the above stories, the notion of a broken primary care continuum is not an academic construct, it causes real harm to patients.[31] We propose a new bridging leadership role—the Chief Primary Care Medical Officer (CPCMO)—as a creative solution built upon revisiting and strengthening the original intent of primary care. Every hospital should elect a CPCMO,[32] an expert in clinical practice across the spectrum of care, a primary care physician who will lead hospital efforts to create systems that ensure primary care's continuum is complete even for the most complex patients.

The principles of primary care championed by Dr Barbara Starfield[29] serve as a useful guide to outline specific duties of the CPCMO (Table 1). Specific examples of how a CPCMO (and CPCMO-led teams) would benefit patients are readily described in Table 2. In broad terms, the CPCMO will be tasked with building systems that facilitate needed bidirectional flow of information and care between inpatient and outpatient settings, and creating maps of community resources and PCPs.[6] These systems should be tailored to the individual needs and resources of the community. For example, based on existing resources, some communities will need hospitalists to be included on the team in the patient-centered medical home; others will need primary care physicians who lead teams in both outpatient and inpatient settings. Through this important bridging role, the CPCMO can also help address the social determinants of health and address barriers to primary care. Analogous to how a PCP develops continuous relationships with patients, the CPCMO will build longitudinal continuity with

Table 1. Chief Primary Care Medical Officer Functions and Roles

Starfield Primary Care Function	CPCMO Role	Measurable Outcomes	Specific Examples
Accessible PCP contact	Ensure strong primary care bridge between acute and chronic care settings	Increased involvement of primary care function in acute care setting Improved communication including better understanding of primary care resources	Develop computerized networking systems to help match PCPs with patients needing care. Be a "match maker" based on expert knowledge of PCPs in the community; Promote hospitable environment for PCPs on hospitalist teams to increase PCP input
Care coordination	Build systems that support improved bidirectional flow of information and effective clinical follow-up	Timely and safe hospital discharges; patient-centered transitions to optimal location after hospital discharge; Confirmation of timely connection between inpatient and outpatient care teams for every patient	Facilitate collaboration between hospitalists, specialists, and PCP in care planning; Improve support for PCPs that enables them to successfully implement discharge plans
Ensure comprehensiveness	Facilitate complete care for multiple comorbidities across the spectrum	Decreased readmission rates; decreased length of stay in hospital	Coordinate with PCP and hospitalists to identify accessible services and referrals that hospitalized patient needs in order to facilitate comprehensive discharge planning
Maintain continuity	Ensure inpatient and outpatient teams stay connected	Safer handoffs; improved patient satisfaction	Reinforce central role of PCP and consistency of PCP relationship with patient across shift changes and discharge transitions; Monitor Neighborhood Stress Scores (NSS7)[33] in order to optimize systems of primary care

CPCMO = chief primary care medical officer; PCP = primary care physician.

Table 2. Chief Primary Care Medical Officer Patient-Specific Scenarios

Starfield Primary Care Function	Patient	CPCMO (and CPCMO-Led Team) Response to Specific Patient Scenario
Accessible PCP contact Care coordination Ensure comprehensiveness Maintain continuity	Woman aged 92 years with hip fracture unable to be discharged to skilled nursing facility because PCP recently retired	Leverage relationships with community PCPs and computerized PCP networking resources to identify and refer to a new PCP Provide PCP functions including admission to SNF until patient established with new PCP and first appointment can take place Ensure patient has comprehensive pain management plan and that Advanced Directive planning has been done with hospitalists, patient, and family before discharge Coordinate communication with prior PCP; ensure relevant information from prior PCP is transferred to new PCP and to SNF and that follow-up with orthopedics occurs in timely fashion
Accessible PCP contact Care coordination Ensure comprehensiveness Maintain continuity	Man aged 54 with metastatic cancer unable to be discharged home with hospice because has no PCP	Leverage relationships with community PCPs and computerized PCP networking resources to identify and refer to a new PCP Provide PCP functions including admission to hospice until first appointment with new PCP can take place Support hospice function as needed so that patient can be discharged home. If there is not time to identify new PCP, facilitate communication and care with hospice as PCP would normally do Stay connected to patient through the end-of-life process until and unless new PCP can be identified
Accessible PCP contact Care coordination Ensure comprehensiveness Maintain continuity	Child with traumatic brain injury whose PCP is not included in care during hospitalization with resultant avoidable readmission	Work with hospitalist team so that PCP can be included in family meetings Ensure that plan for specialist referrals after discharge is realistic for the family and that PCP team has the resources to support complex discharge plan Assist social workers with accurately and adequately addressing social determinants of health for the family so that social as well as medical needs are being addressed at discharge Facilitate effective discharge plan to adequately supported PCP
Accessible PCP contact Care coordination Ensure comprehensiveness Maintain continuity	Homeless geriatric woman with complex social and health needs whose PCP is not contacted	Work with hospitalist team so that PCP is identified and contacted Engage complex care team in hospital who will follow up with intensive case management after discharge Provide assistance to hospitalists and PCP in order to facilitate systems of care for complex patients Create hospital systems for complex patients so that inpatient and outpatient care can be connected alongside frequent readmissions to acute care settings

CPCMO = chief primary care medical officer; PCP = primary care physician; SNF = skilled nursing facility.

community PCPs, traveling to meet with community partners in order to better understand and advocate for their practices. Metrics such as the neighborhood stress score (NSS7) can be monitored by the CPCMO to determine if additional resources are needed to support partnering PCPs and as a means to better identify patients with high levels of neighborhood stress and other social determinants of health.[33]

The ideal CPCMO would be a primary care clinician with 0.25 FTE time spent in continuity clinic; 0.25 FTE doing clinical work in the hospital (for example on hospitalist services or family medicine inpatient services) with participation on daily hospital case management rounds; and 0.50 FTE administrative in hospital leadership with membership and voting rights on key hospital committees such as the Medical Executive Committee and with the hospital medical staff leadership. Ongoing maintenance of skills in hospital and continuity clinical medicine is needed by the CPCMO in order to stay current in these changing practice environments.

The CPCMO role described here addresses one aspect of the complex large-scale solutions needed to fix our current fractured model of health care,[34-37] and it is only an outline; the details for how the CPCMO function can be most effective will require scientific investigation—well designed and adequately resourced studies—to discover how best to implement this innovation. Important questions to be answered in these studies and through thoughtful planning with stakeholders will include what qualifications the role would require, how the CPCMO would integrate community PCPs into the inpatient system and hospitalists into the patient-centered medical home,[38] how budgetary authority and resources would be allocated, how the CPCMO would fit into the traditional hospital administrative hierarchy, and how the CPCMO would accountably connect to the outpatient community. We predict these improvements will lead to substantial cost savings, which can sustainably fund creative solutions, such as the CPCMO. The CPCMO will be a wise investment for hospitals operating on value-based payment structures with an anticipated significant rate of return in important measurable outcomes, such as decreased length of stay and readmission rates; improved transitions of care, patient satisfaction, access to primary care, and patient health; and optimization of the primary care function.

AN ESSENTIAL ROLE IN THE SHIFT TO VALUE-BASED CARE

The volume-based, fee-for-service paradigm that has characterized the US health care system for decades is unsustainable. Costs have continued to skyrocket without proportional improvements in population health. The Medicare Access and CHIP Reauthorization Act (MACRA), which received strong bipartisan support, will drive significant change through a greater emphasis on value-based care.[39] As MACRA is implemented, it will require a transformed health care environment (eg, reimbursement shifts from volume to value, movement toward team-based care, increased accountability for population health). Hospitals have already begun to see changes in reimbursement, including reduced payment for hospital-acquired conditions and preventable readmissions. The historic changes to the US health care system represented by MACRA provide an urgent imperative for the implementation of creative solutions such as the CPCMO role.

Savings that arise from improved value can fund the CPCMO role. Additionally, a portion of the hospital-subsidized hospitalist funds could be shifted toward the CPCMO role and to support the needs that the CPCMO identifies for sustaining robust primary care systems. For health systems that want to institute a stepwise implementation of the CPCMO role, a focus on high-need, high-cost populations could initially be considered using established best practices regarding these complex populations.[40] Regarding the cost of high-need, high-cost patients, 20% of all health care spending is accounted for by the top 1% of this population, and nearly 50% of spending is accounted for by the top 5%.[41,42] Addressing the primary care root causes of this imbalance could drive initial funding for implementation of the CPCMO. The ample money in the US health care system can be redirected to improve value for these high utilizers of acute care services and for everyone else.

LET'S MAKE PRIMARY CARE WHOLE AGAIN

As new solutions are being created and tested during this era of health care transformation, it is important to refocus our lens on the traditional. Primary care, as originally envisioned (and practiced), is a great solution. One way to elevate primary care and unite the "new" and "old" worlds of medicine is through the CPCMO. The CPCMO will help make primary care whole again and rekindle the flame of traditional, personal doctoring.[43-47] This requires a health care system that values and supports a trusting primary care relationship at critical junctures in life (ie, an admission to the hospital) and throughout "times of transition and instability; circumstances involving ambiguity and variability; situations where relationships and individualization matter; systems with a high degree of interconnectedness or complexity; settings in which both strongly and loosely related events unfold with time;

and situations where the whole is more than the sum of the parts."[48(p200)]

Family physicians' hospitalist knowledge, coupled with continued expertise and leadership in the outpatient setting, uniquely positions our profession to bridge the divide between the inpatient and outpatient worlds. Family physicians can fill the expert-generalist role that is increasingly needed in our evolving health care system.[49] The comprehensiveness of family medicine contains health care costs and leads to fewer hospitalizations.[50]

CONCLUSION

This is a call for family medicine as a discipline to reevaluate our purpose, and reembrace our mission, by championing innovations such as the CPCMO which are inspired by the traditional primary care values of personal doctoring. As family physicians, we can (and must) reclaim our personal physician role in our patients' lives and communities and advocate for system changes that support better health.[45] This does not require doing all things for all people 24 hours a day and 7 days a week, but it does mean building a system of care that enables us to be the connection, the enduring presence, for our patients and communities in sickness and in health.

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