Title

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Journal

Journal of General Internal Medicine, 29(10)

ISSN

0884-8734

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Publication Date

2014-10-01

DOI

10.1007/s11606-014-2920-z

Peer reviewed

When to Repatriate? Clinicians' Perspectives on the Transfer of Patient Management from Specialty to Primary Care

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BACKGROUND: Subspecialty ambulatory care visits have doubled in the past 10 years and nearly half of all visits are for follow-up care. Could some of this care be provided by primary care providers (PCPs)?

OBJECTIVE: To determine how often PCPs and specialists agree that a mutual patient's condition could be managed exclusively by the PCP, and to understand PCPs' perspectives on factors that influence decisions about 'repatriation,' or the transfer of patient management to primary care.

DESIGN: A mixed method approach including paired surveys of PCPs and specialists about the necessity for ongoing specialty care of mutual patients, and interviews with PCPs about care coordination practices and reasons for differing opinions with specialists.

PARTICIPANTS: One hundred and eighty-nine PCPs and 59 physicians representing five medicine subspecialties completed paired surveys for 343 patients. Semi-structured interviews were conducted with 16 PCPs.

MEASUREMENTS: For each patient, PCPs and specialists were asked, "Could this diagnosis be managed exclusively by the PCP?"

RESULTS: Specialists and PCPs agreed that transfer to primary care was appropriate for 16 % of patients, whereas 36 % had specialists and PCPs who agreed that ongoing specialty care was appropriate. Specialists were half as likely as PCPs to identify patients as appropriate for transfer to primary care. PCPs identified several factors that influence the likelihood that patients will be transferred to primary care, including perceived patient preferences, limited access to physician appointments, excessive workload, inter-clinician communication norms, and differences in clinical judgment. We group these factors into two domains: 'push-back' and 'pull-back' to primary care.

CONCLUSIONS: At a large academic medical center, approximately one in six patients receiving ongoing specialty care could potentially be managed exclusively by a PCP. PCPs identified several non-clinical factors to explain continuation of specialty care when patient transfer to PCP is clinically appropriate.

KEY WORDS: access to care; care coordination; primary care; medical culture.
J Gen Intern Med 29(10):1355–61
DOI: 10.1007/s11606-014-2920-z

Electronic supplementary material *The online version of this article (doi:10.1007/s11606-014-2920-z) contains supplementary material, which is available to authorized users.*

Received July 2, 2013
Revised December 3, 2013
Accepted May 13, 2014
Published online June 17, 2014

INTRODUCTION

The use of subspecialty medical services has been rising rapidly in the U.S., with referrals to specialists more than doubling between 1999 and 2009.[1] Nearly half of all specialty visits are for follow-up care with a patient already known to the specialist,[2] and access has become a problem in many areas as wait times for new patient appointments increase.[3] Prolonged wait times impede specialty input for primary care patient populations that are increasing in age and clinical complexity.[4] Higher use of specialty services also increases the care coordination burden shouldered by both specialists and primary care providers (PCPs),[5,6] and is associated with less effective referral tracking among PCPs and inconsistent information transfer between PCPs and specialists.[7–9]

When clinically appropriate, the transfer of patient care management from specialist to PCP could optimize the use of specialty care resources and increase specialty care capacity. Prior studies show that specialists and PCPs sometimes disagree about the expected duration of specialty care and appropriate division of care.[10–13] However, little is known about how clinicians decide whether ongoing specialty care is needed, or what factors facilitate or impede the transfer of management responsibility from specialist to PCP—a process we refer to as 'repatriation'. To explore this gap, the present study used mixed methods to answer the following questions: 1) How often do PCPs and specialists agree that an individual patient under their mutual care

could be managed exclusively by the PCP? 2) When PCPs and specialists disagree, how do PCPs explain the discordance? 3) Are there specific factors that PCPs believe influence care coordination practices?

METHODS

Design

We conducted a mixed methods study to examine PCP and specialist repatriation preferences for a wide range of patients.[14] This study is part of an academic medical center initiative, under California's Delivery System Reform Incentive program (DSRIP),[15] to improve timely and appropriate patient access to specialty clinics.

Setting and Participants

Surveyed participants included 1) physicians in five medicine subspecialty practices (cardiology, endocrinology, gastroenterology, pulmonology, and rheumatology) at an urban, multi-site academic medical center; and 2) PCPs (general internists, family and community medicine physicians, and nurse practitioners) in primary care practices associated with the medical center and in community-based practices.

Procedures

The study took part in two phases. In Phase 1, December 2011–February 2012, physicians at all participating subspecialty practices were invited to complete a four-item, self-administered survey for each patient after the patient's visit (see Appendix 1 available online). Surveys were distributed to all physicians seeing patients during a consecutive sample of clinic sessions. The survey listed the patient's name and diagnosis and included the question: "Could this diagnosis be managed exclusively by the PCP?" Survey completion was voluntary and no financial incentives were offered.

In Phase 2, May–June 2012, PCPs of the patients represented among subspecialist surveys were identified and sent a similar survey—by email for PCPs internal to the institution and by postal mail for external PCPs (see Appendix 2 available online). To account for the possibility that changes in a patient's medical condition between Phases 1 and 2 could explain differences between specialist and PCP survey responses, PCPs were also asked whether the patient's condition had remained stable during the previous six months. PCPs received a $5 gift card for each completed survey, with the assumption that some review of patient charts would be required.

PCPs with≥4 patients captured by subspecialist surveys (n=30, all internal) were invited to participate in a semi-structured interview (see Appendix 3 available online). During the interview, PCP perspectives on co-management were elicited and the PCP was asked to fill out the Phase 2 survey for each patient. After completing the surveys, participants had the option to view the specialist response for each patient, and were asked about possible reasons for discordance or concordance. Interviews lasted 30–45 min and were audio recorded and transcribed by SA and JM. Participants were offered lunch and a $5 gift card for each completed survey.

We also conducted a medical record review of patients whom the specialist reported as not appropriate, but the PCP reported as appropriate, for transfer, in order to explore whether previous visits with the specialist, or clinical stability at the time of the specialist survey, could explain some of the response discordance. Patients were deemed clinically unstable if they had unstable or abnormal vital signs, or had documented symptoms that were being actively managed by the specialist. The interviews and surveys were conducted as part of a clinical operations improvement program. Data analysis and manuscript preparation procedures were approved by the institution's committee on human research.

Data Analysis

The primary objective of the quantitative analysis was to estimate the proportion of patients for whom specialist and PCP agreed that return to primary care would be appropriate. Descriptive statistics for the survey include proportions with 95 % confidence intervals. Statistical significance of the differences between specialist and PCP survey responses was assessed with McNemar's chi-square test.

To analyze how PCPs talked about patient management and PCP-specialist differences in survey responses, we used the constant comparative method, an inductive, grounded theory-based approach that stays close to participants' words and perspectives and reduces the risk of preconceived results.[16,17] SA and JM thoroughly read each transcript, extracted themes within each participant's account, and developed an approach to dividing the data into conceptual "units" or codes.[18] SA (the sole author trained in qualitative data analysis) conducted all coding by hand, and codes were revised iteratively through repeated discussions with JM, RG, and NG. The entire team then participated in a series of meetings in which codes were grouped into conceptual categories related to a) PCPs' explanations of the reasons for discordance in survey responses and b) PCPs' perceptions of co-management practices and barriers to repatriation. The team discussed all ambiguities and inconsistencies until consensus was reached about interpretation. To explore the possibility that participating in an

interview influenced PCPs' survey responses, we compared surveys among PCPs who were interviewed with those who were not (all with≥4 patient surveys).

RESULTS

Survey

Surveys were completed by 59 of 62 eligible specialists for 720 (67 %) of the 1,082 patient visits that occurred during the sampled clinic sessions. PCPs were identified for 705 (94 %) of these patients. Surveys were completed by 74 internal (n=223 patient visits) and 115 external PCPs (n=120 patient visits), with a response rate of 81 % for internal and 40 % for external PCPs. PCPs who also participated in interviews completed 18 % (n=61) of the surveys. Subgroup analysis revealed that patients with and without a PCP survey did not differ by age, sex, or race. Similarly, PCP and specialist survey responses and concordance rates did not differ significantly by patients' age, sex, race or insurance status. Patient characteristics are shown in Table 1.

Sixteen percent of patients in our sample had specialists and PCPs who agreed that transfer to primary care for exclusive management was appropriate, and for another 36 % there was agreement for ongoing co-management (see Table 2). Overall, specialists were half as likely as PCPs to identify patients as appropriate for transfer to primary care (24 % vs. 46 %, respectively; P<0.001). There were 59 patients whom the specialist reported "no" (not appropriate for transfer) and the PCP reported "yes" (appropriate for transfer) at the time of the PCP survey. The large majority (76 %) of this subgroup of patients was established in the specialty care clinic (at least two previous visits before the specialist survey), and none were deemed clinically unstable at the time of the specialist visit, based on medical record review of the specialist consultation note.

Among patients deemed appropriate for transfer to primary care, only 38 % (95 % CI: 27 %, 49 %) of specialists and 44 % (95 % CI: 36 %, 52 %) of PCPs answered "yes" when asked, "do you think the patient would be amenable to transfer of care?" Comparing responses by specialty, cardiologists were the most likely to agree that transfer was appropriate, whereas endocrinologists were the least likely to agree (data not shown).

Interviews

A total of 16 primary care clinicians (14 faculty physicians, one resident, and one nurse practitioner) participated in semi-structured interviews. Participants included 12 women and four men. Themes related to the transfer of care are grouped in two domains: 1) PCP agreement/specialist disagreement with exclusive patient management by the PCP, which we refer to as 'pull back' to primary care; and 2) specialist agreement/PCP disagreement with exclusive management by the PCP, which we refer to as 'push back' from specialty care. Factors that enable or prevent the transfer of patients are explored in both domains and summarized in Table 3. No significant differences in survey responses to the question about appropriateness of transfer to primary care were found between PCPs who participated in an interview and those who did not.

Pull Back to Primary Care

Scope of Expertise. PCPs pointed to several differences between primary and specialty care to explain 'pull back' discordance. First, specialists' lack of knowledge about the scope of PCPs' abilities, or perception that PCPs' expertise is limited, may promote reluctance to recommend patient transfer to primary care. A PCP explained, "I think it's a question of what they feel like the primary care physician can and cannot do. I do not know how much they know about the range of things that we feel confident doing." Regarding a patient with Type 2 diabetes, another PCP said: "They tend to feel that diabetics should be managed in endocrine. But this is a case where he's not on insulin—he's very well controlled. I'm certainly able to monitor a patient like him."

Table 1. Characteristics of Study Population

	Total	CARD	ENDO	GI	PULM	RHEUM
Patient characteristics						
Number of patients represented	343	86	62	43	71	81
Sex (% female)	64 %	52 %	60 %	70 %	65 %	75 %
Mean age, years	62	70	56	54	66	57
Insurance (%)						
- Commercial	37 %	30 %	45 %	47 %	25 %	43 %
- Medi-Cal	8 %	6 %	6 %	5 %	10 %	12 %
- Medicare	48 %	62 %	37 %	26 %	62 %	40 %
- Uninsured/Other	7 %	2 %	11 %	23 %	3 %	5 %
Specialist characteristics						
Number of specialists represented	48	13	10	4	7	14
Median surveys per specialist	6	4	3	7	8	6

Table 2. Survey Responses to Question: "Could This Condition be Managed Exclusively by the PCP?" Total Sample=343

		PCP responses					
		Yes		Unlikely		Row totals	
		n	%	*n*	%	*n*	%
Specialist responses	Yes	55	16 %	28	8 %	83	24 %
	Perhaps	43	13 %	35	10 %	78	23 %
	No	59	17 %	123	36 %	182	53 %
	Column Totals	157	46 %	186	54 %	343	100 %

Individual variation in PCPs' ability to manage certain conditions was also reported, along with acknowledgment that specialists cannot be expected to anticipate these differences. For example, a PCP reflected on a patient with Graves' disease whom she felt was appropriate for transfer to her care, but the endocrinologist did not: "I might not be as strong at certain specialties like rheumatology, whereas I feel more comfortable with my endocrinology. Somebody else might just be the opposite."

Clinical Judgment. Explanations for pull back also revealed differences in clinical judgment between PCPs and specialists. PCPs described an ethos of "watchful waiting", whereas specialists were characterized as more aggressive with certain conditions because they care for "the sickest" patients and "their perception of what comes through the door is different." One PCP used diabetes and blood pressure as examples of conditions for which "our general medicine faculty have different standards of opinions…so some of us don't necessarily agree with what the specialists recommend" (in this case, tighter control).

PCPs hypothesized that specialists' reasoning about care transitions may also be influenced by ethical and legal considerations. As one PCP put it, "I can understand that cardiologists may feel that there is…some risk or liability for discharging a patient with aortic stenosis to primary care." Under these circumstances, PCPs reported that specialists are more likely to advocate closer monitoring of a patient and are less likely to "let go" or recommend that patient care be transferred to a PCP.

Perennial Follow-up. Automatic scheduling of follow-up visits after an initial referral to a specialist—"perennial follow-up" in the words of one PCP—was often mentioned as a barrier to repatriation. This practice was reported as beneficial to patients, who frequently develop "supportive and motivating" relationships with specialists. However, indefinite follow-up may lead to the specialist acting as de facto primary care provider for a patient and to a reduced likelihood of repatriation. "The specialty provider doesn't have a reason, or a culture, or incentive, or training, to position any expectation, per se, of how long they [the patient] will be seen", said a PCP.

A culture of perennial follow-up was reported to be more predominant in some specialties than others. A PCP who specializes in geriatrics reported that "people tend to go to cardiology twice a year and it doesn't add a lot more than what I would have been doing if I had been seeing the patient." Another PCP suggested that gastroenterology was "the opposite of cardiology," because follow-up appointments are typically not scheduled with patients after the initial referral visit, but may be clinically appropriate for some patients.

Rules of Interaction. Tacit social norms governing patient–clinician and PCP–specialist interactions, and discomfort initiating conversations about care transitions, also emerged as possible reasons for pull back discordance. For example, a PCP described a pervasive reluctance to end a relationship with a patient: "none of us in medicine are comfortable saying, 'I'm done with you." Additionally, a specialist may not want to "push someone else's problems back to the PCP", so they may continue to see patients even if it isn't medically necessary. To illustrate, a PCP surmised that a cardiologist responded "perhaps" on the survey, for a patient whom the PCP felt was an obvious "yes", in order to give the PCP "an out" in case she preferred that the patient stay with the specialist.

Specialists' typically higher socioeconomic and professional status also appear to undermine PCPs' ability to initiate a conversation about patient management preferences. Openly disagreeing with a specialist's recommendation was described by our participants as "treading on someone else's territory" and posed the risk of "offend[ing]" the specialist. "It's not really my role to tell the specialist to stop seeing the patient," said a PCP. PCPs generally agreed that conversations about care transitions should be initiated by specialists, particularly for patients who self-refer to a specialist or whose relationship with a specialist predated that with the PCP.

Patient Preferences. Our participants emphasized that care transitions are nearly always dependent on a patient's approval. Indeed, patients were described as powerful actors in decisions about clinical care. "That's why she needs those visits [with a specialist]," said a PCP about a patient whom she felt could be managed in primary care, "because she's going to insist on them." PCPs reported a common assumption among patients that good medical care means having "a doctor for each part of the body." One PCP explained that this is not a belief originating with patients themselves, but is a product of a broader "system" that "fosters the idea of specialty care being essential." However, he said, patients do not always realize that "more might not be better…it's impossible for most patients to

Table 3. Themes Emerging from PCP Interviews on Barriers to Patient 'Repatriation' to Primary Care

'Pull back' to primary care*	'Push back' from specialty care†
Scope of PCP expertise: Specialists' lack of knowledge, or doubt, about PCP's ability to manage patient's condition. *Clinical judgment:* Specialists and PCPs have different approaches to managing some conditions. *Perennial follow-up:* Tendency for stable patients to be followed indefinitely by specialists. *Rules of interaction:* Social norms and status differences result in PCPs' discomfort in discussing care transitions with specialists and patients. *Patient preferences:* Common assumption among patients that more care is better. *Financial inducements:* Financial pressures or incentives may induce some specialists to follow patients when not medically necessary.	*Limits of PCP expertise:* PCPs appreciate ongoing specialty co-management, particularly in cases of diagnostic uncertainty *Resource and workload constraints:* Specialty co-management mitigates PCPs' resource constraints and heavy workload, particularly for patients with multiple, complex conditions. *Access:* Barriers to patient access to primary care, and PCP access to specialist consultations, increase the appeal of ongoing specialty co-management. *Patient preferences:* Specialty opinion sought by PCP in order to assuage patients' doubt about diagnosis or treatment recommendation.

*PCP agreement/specialist disagreement with exclusive patient management by PCP
†Specialist agreement/PCP disagreement with exclusive patient management by PCP

envision the realities of care coordination…like how little we are able to communicate."

Financial Inducements. Finally, several PCPs suggested that financial concerns may play a role in specialists', and specialty practices', tendency to continue following patients even when not medically necessary. One PCP could think of no other reason why a pulmonologist would recommend continued care for a patient who "has been doing fine…her asthma has been stable forever."

Push Back from Specialty Care

Limits of PCP Expertise. As noted above, we found that PCP-specialist discordance moved in both directions, and a significant number of PCPs did not recommend that patient management be transferred to primary care, even when the specialist considered it appropriate. Explanations for 'push back' from specialty care include varying degrees of expertise among PCPs, particularly in cases of diagnostic uncertainty. For example, a PCP expressed discomfort with a pulmonologist's judgment that a patient was appropriate for transfer, since a definitive diagnosis and treatment plan had not been established and the PCP was uncertain whether she could or should manage the patient's condition. Another PCP noted that she appreciates specialist management when it compensates for limitations in her clinical knowledge: "That person probably knows much more about their field than I do, so in some ways it makes me feel comfortable that my patient is being taken care of by a specialist."

Resource and Workload Constraints. Nearly all PCPs reported workload and resource constraints as reasons for push back discordance. One PCP was frustrated that an endocrinologist recommended transfer of a patient with uncontrolled diabetes since his clinic could not provide adequate nutritional counseling: "If I had all the resources in the world, then yeah, I could manage that." Other PCPs were puzzled by specialists' survey responses when the patient in question required tests and procedures more commonly performed at specialty practices.

PCPs also described the challenges of attending to patients with multiple, complex health problems in a typical 20-min encounter. Referring a patient to a specialist for a condition within the scope of their ability was acknowledged as a pragmatic strategy, albeit one that is underreported. "I can't say I feel proud of it," said one PCP. Another, however, was less apologetic: "I have plenty to do—it's not like they [the patient] come in and this is their only issue. So let the cardiologist keep seeing them…" The downside to this strategy, however, is that it can increase care coordination responsibilities and the likelihood of duplication of effort. "The worst is when we're working at odds," reflected a PCP.

Access. Our participants reported access—to both PCPs and specialists—as a key barrier to patient transfer to primary care. Some PCPs have large patient panels, which can lead to long wait times for appointments. In the words of a senior PCP regarding a patient whose pulmonologist recommended transfer to primary care, "For this one, it's just an access issue. For him, I could easily take care of this if he could get in to see me." In addition, clinics staffed by medical residents offer limited continuity of care, contributing to the appeal of ongoing specialty care among both clinicians and patients. In terms of access to specialists, long wait times for new patient appointments prompted a PCP to explain that she wanted a patient to "maintain that relationship [with a nephrologist], so that if I

catch that their kidneys are getting worse, they can get right back in." In addition, ongoing specialty care enables the PCP to confer directly with the specialist about the patient in question, whereas taking over exclusive management may leave the PCP without a formal channel for co-management consultation.

Patient Preferences. Finally, PCPs emphasized the importance of maintaining rapport with their patients as another factor contributing to push back. "If patients want to see the specialist, it's not going to do me any good to be the one to say, 'you've got to only see me,'" said a PCP. Primary care clinicians also rely on specialists' opinions to reinforce their diagnosis or treatment recommendations—a strategy that is particularly effective with patients who lack confidence in their PCP. In the words of one PCP: "I have some patients who absolutely need to hear it from somebody else…and for them nothing short of a specialty visit will be satisfying…"

DISCUSSION

Overall, PCPs and specialists differed in their opinion about the suitability of transfer of care to the PCP for 48 % of patients, with PCPs nearly twice as likely as specialists to recommend transfer to primary care. Our results also reveal significant differences between specialties, with cardiologists identifying the highest proportion, and endocrinologists the lowest proportion, of patients as appropriate for exclusive PCP management. It should be stressed that PCPs and specialists agreed about the specialty care needs for a significant proportion of patients—both recommending care transition and cautioning against it (52 % concordance rate). The 16 % of patients for whom both specialist and PCP agreed that transfer of care was appropriate represent an important and untapped opportunity to reduce care coordination burdens, lower costs, and increase new patient access to specialty services. Currently, there are no standards to help guide the repatriation decision and process. The Patient-Centered Medical Home (PCMH) Neighborhood model provides a promising foundation for this activity,[19] although it has not yet been implemented widely.[20,21]

PCPs' explanations for both 'pull back' and 'push back' discordance highlight complex social, structural, and clinical forces shaping patient management practices. These clinicians navigate a terrain of varying expertise, differing perceptions of how to best manage a medical condition or individual patient, heavy workloads, few opportunities to consult with their specialist colleagues, tacit rules governing when and by whom discussions about management preferences are initiated, and a lack of formal care coordination mechanisms.

New models of care coordination should provide structure and guidelines to enable clinicians to reach consensus about the need for ongoing specialty co-management of individual patients. When the PCP, specialist, and patient all agree, mechanisms are needed to facilitate repatriation. These could include electronic health record-based consultation and referral systems that elicit PCP and specialist preferences for co-management and a time line for repatriation, when appropriate.[22] In terms of patient preference, it was surprising to find that most specialists and PCPs in our study believed patients would *not* find repatriation to be acceptable. This finding warrants greater exploration.

The results of this study should be interpreted within the context of its limitations. Although we engaged a large number of physicians from a number of different primary care specialties both within and outside the home institution, this remains a single-site study, and there may be unique characteristics of the practice setting that limit the generalizability of our findings. Specifically, the study took place at an urban academic medical center where most specialists and PCPs are engaged in research and medical education activities in addition to clinical care—which typically involves only 1–4 half-day clinic sessions per week. As a result, our findings may not reflect co-management practices and attitudes in private practice and/or rural settings. Conversely, high representation of a smaller number of more clinically active specialists could have introduced sample bias. Moreover, patients represented in the study may be distinct from the general population in terms of medical complexity and health insurance access. It is also possible that non-responder clinicians have different opinions about repatriation than those who participated in our study. Additionally, because there was a lower survey response rate from PCPs practicing outside the home institution, our results primarily apply to PCP–specialist interactions within the same medical center.

With regard to discordance between specialists and PCPs, the time lag between the specialist and PCP surveys introduces the possibility that some patients' clinical conditions could have improved enough during the interim such that specialists—were they to have been surveyed at the same time as PCPs—would have concurred with PCPs regarding suitability for repatriation. Relatedly, even with no change in clinical stability, the additional six months could have provided the specialist reassurance enough to support repatriation. In subgroup analysis of the 59 patients reported by specialists as not appropriate for exclusive PCP management, yet reported by PCPs as appropriate, we found that over three-quarters had ongoing relationships with the specialist (at least two visits in the two years prior to the survey), and medical record review reveals that none were clinically unstable at the index specialist visit. These findings suggest that, for most of these patients, it is unlikely that their clinical condition and specialist familiarity with the patient would have changed enough to alter responses had the specialist been surveyed 4–6 months later. Finally, we did not obtain specialist or patient perspectives on the PCP–specialist relationship or care transitions. Future explorations of patient and specialist experiences will help to fill this gap.

Our study results suggest that some long-term specialty care could be reduced by transferring exclusive management to the PCP. Appropriate repatriation could have significant effects on health care costs, care coordination burden, and access, but appears to require changes on several fronts, including: 1) better communication and information sharing between PCPs and specialists, and between clinicians and patients, both of which have been previously shown to be associated with improved health outcomes and care quality[23–25]; 2) strategies that address "perennial follow-up" without undermining the benefits of specialty care to patients; and 3) improving access to PCPs, particularly clinicians with the time and resources to provide comprehensive services for patients with multiple medical conditions. Our results suggest that efforts to support repatriation, where both specialist and PCP agree, will be more likely to succeed if the complex, multi-level factors that influence decisions about the location and duration of patient follow-up care are addressed.

Acknowledgements: Contributors: *We would like to express gratitude to the many clinicians who shared their perspectives with us. We also thank Chartis, Inc. for their assistance with survey administration and Gina Intinarelli for her ongoing support and encouragement.*

Funding: *Support for this study came through existing clinical operations and evaluation initiatives sponsored by the UCSF Medical Center, the UCSF Department of Medicine Ambulatory Care Operations and Innovations Program, and the Delivery System Reform Incentive Payment (DSRIP) Program. None of these groups were involved in the design, conduct, collection, management, analysis or interpretation of the data. We did not require their approval of the manuscript or decision to submit.*

Presentations: *Preliminary results of the study reported here were presented at the annual meeting of the Society of General Internal Medicine in Denver, CO in April 2013.*

Conflict of Interest: *Dr. Gonzales serves as Medical Advisor to Phreesia, Inc. To the best of our knowledge, the authors do not have any additional conflicts of interest, financial or otherwise.*

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REFERENCES

1. **Barnett ML, Song Z, Landon BE.** Trends in physician referrals in the United States, 1999–2009. Arch Intern Med. 2012;172:163–70.
2. **Valderas JM, Starfield B, Forrest CB, Sibbald B, Roland M.** Ambulatory care provided by office-based specialists in the United States. Ann Fam Med. 2009;7:104–11.
3. **Merritt HA.** Survey of Physician Appointment Wait Times. Irving, TX: Merritt, Hawkins & Associates; 2004.
4. **Murray MF.** Improving access to specialty care. Jt Comm J Qual Patient Saf. 2007;33:125–135.
5. **Mehrotra A, Forrest CB, Lin CY.** Dropping the baton: specialty referrals in the United States. Milbank Q. 2011;89:39–68.
6. **Pham HH, O'Malley AS, Bach PB, Saiontz-Martinez C, Schrag D.** Primary care physicians' links to other physicians through Medicare patients: the scope of care coordination. Ann Intern Med. 2009;150:236–42.
7. **Liss DT, Chubak J, Anderson ML, Saunders KW, Tuzzio L, Reid RJ.** Patient-reported care coordination: associations with primary care continuity and specialty care use. Ann Fam Med. 2011;9:323–9.
8. **O'Malley AS, Cunningham PJ.** Patient experiences with coordination of care: the benefit of continuity and primary care physician as referral source. J Gen Intern Med. 2009;24:170–7.
9. **O'Malley AS, Reschovsky JD.** Referral and consultation communication between primary care and specialist physicians: finding common ground. Arch Intern Med. 2011;171:56–65.
10. **Aubin M, Vezina L, Verreault R, et al.** Patient, primary care physician and specialist expectations of primary care physician involvement in cancer care. J Gen Intern Med. 2011;27:8–15.
11. **Bowman BT, Kleiner A, Bolton WK.** Comanagement of diabetic kidney disease by the primary care provider and nephrologist. Med Clin N Am. 2013;97:157–73.
12. **Wegner SE, Lathren CR, Humble CG, Mayer ML, Feaganes J, Stiles AD.** A medical home for children with insulin-dependent diabetes: comanagement by primary and subspecialty physicians—convergence and divergence of opinions. Pediatrics. 2008;122:383–7.
13. **Starfield B, Forrest CB, Nutting PA, von Schrader S.** Variability in physician referral decisions. J Am Board Fam Pract. 2002;15:473–80.
14. **Creswell JW, Clark VLP.** Designing and Conducting Mixed Methods Research. Thousand Oaks: SAGE Publications; 2010.
15. Henry J. Kaiser Family Foundation. California's 'Bridge to Reform' Medicaid Demonstration Waiver - Policy Brief - 8197-R. Oct. 2011. Available at: http://kff.org/health-reform/fact-sheet/californias-bridge-to-reform-medicaid-demonstration-waiver/. Accessed 23 May 2014.
16. **Corbin J, Strauss A.** Basics of Qualitative Research. Thousand Oaks: SAGE Publications; 2007.
17. **Bradley EH, Curry LA, Devers KJ.** Qualitative data analysis for health services research: developing taxonomy, themes, and theory. Health Serv Res. 2007;42:1758–72.
18. **Lincoln YS.** Naturalistic Inquiry. Thousand Oaks: SAGE Publications; 1985.
19. **Kirschner N, Greenlee MC.** The Patient-Centered Medical Home Neighbor: The Interface of the Patient-Centered Medical Home with Specialty/Subspecialty Practices. Philadelphia: American College of Physicians; 2010: Policy Paper. (Available from American College of Physicians, 190 N. Independence Mall West, Philadelphia, PA 19106.)
20. **Jaén CR, Ferrer RL, Miller WL, et al.** Patient outcomes at 26 months in the patient-centered medical home National Demonstration Project. Ann Fam Med. 2010;8(Suppl 1):S57–S67.
21. **Kirschner N, Barr MS.** Specialists/subspecialists and the patient-centered medical home. Chest. 2009;137:200–4.
22. **Chen AH, Kushel MB, Grumbach K, Yee HF.** A safety-net system gains efficiencies through "eReferrals" to specialists. Health Aff (Millwood). 2010;29:969–71.
23. **Foy R, Hempel S, Rubenstein L, et al.** Meta-analysis: effect of interactive communication between collaborating primary care physicians and specialists. Ann Intern Med. 2010;152:247–58.
24. **Diller PM, Smucker DR, David B.** Comanagement of patients with congestive heart failure by family physicians and cardiologists: frequency, timing, and patient characteristics. J Fam Pract. 1999;48:188–95.
25. **Stewart MA.** Effective physician–patient communication and health outcomes: a review. CMAJ. 1995;152:1423–33.