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Translating "See-and-Treat" to Primary Care: Opening the gates does not cause a flood

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Translating "See-and-Treat" to Primary Care: Opening the gates does not cause a flood

Running title: See-and-Treat in Primary Care

Abstract

Objective

To explore how the See-and-Treat concept can be applied in primary care and its effect on volume and productivity.

Design

An explanatory single-case study design with a mixed methods approach and presented according to the SQUIRE 2.0 guidelines.

Setting

A publicly-funded, private primary care provider within the Stockholm County, which caters to a diverse patient population in terms of ethnicity, religion, socioeconomic status, and care needs.

Participants

CEO, center manager, four physicians, two licensed practical nurses, one medical secretary, and one lab assistant.

Intervention

A See-and-Treat unit was established to offer same-day service for acute unplanned visits. Standardized patient symptom forms were created that allowed patients to self-triage and then enter into a streamlined care process consisting of a quick diagnostic lab and a physician visit.

Main Outcome Measures

Volume, productivity, staff perceptions, and patient satisfaction were measured through data on number and type of contacts per 1000 listed patients, visits per physician, observations, interviews, and a questionnaire.

Results

A significant decrease in the acute and total number of visits, a continued trend of diminishing telephone contacts, and a non-significant increase in physician productivity. Patients were very satisfied, and staff perceived an improved quality of care.

Conclusions

See-and-Treat appears to be a viable approach for a specific primary care patient segment interested in acute same-day-service. Opening up access and standardizing care made it possible to efficiently address these needs and engage patients.

Keywords

See-and-treat, Primary Care, Quality Improvement, Standardization, Patient engagement

Introduction

Primary health care centers (PHCC) are designed to be patients' first point of access for non-urgent, chronic, and preventive care services. This role encompasses responsibility for the provision of accessible, continued, comprehensive, and coordinated care (1). Despite this well-defined role, long waiting times hinder access to care (2). This can lead to the inefficient use of other health system entry points (3) such as emergency departments (EDs), which can lead to overcrowding and risk patient safety.

Walk-In Centers (WIC) and Retail Clinics (RC) were developed to improve access to primary care and serve as alternatives to EDs in the UK and US, respectively. Neither requires an appointment, are usually led by nurse practitioners, operate at convenient locations with extended hours which is why patients choose them, and provide immediate and episodic care for treatment of minor illnesses and injuries (4–7). Patients are highly satisfied (8), care quality is comparable to PHCCs (9), but they can increase demand or lead to duplication of services (4,10) and negatively impact care continuity (11–13). It has been suggested that the inclusion of physicians could increase the benefits (14).

EDs are also challenged by waiting times and overcrowding (15,16), and solutions developed there may be applicable to primary care. See-and-Treat is an approach to flow improvement by assigning staff to a separate stream for patients with low acuity conditions. It has reduced waiting time for these patients as well as for the ED in general (17).

The development of processes tailored to meet the needs of patients with less severe conditions, but which require physician-level competence, may expand the scope and effectiveness of WIC and RCs. As with EDs, a See-and-Treat could potentially benefit the entire PHCC. Thus, the aim

of this study was to explore how the See-and-Treat concept can be applied in primary care and its effect on volume and productivity.

Methods

Study of the intervention

This explanatory single-case study using mixed methods (18) follows the SQUIRE 2.0 guidelines "for quality improvement reporting excellence" (19). The case represents a unique translation of See-and-Treat to primary care.

Context of the intervention

A publicly-funded, private care provider founded a PHCC in a suburb of Stockholm, Sweden in September, 2010. Inhabitants represented a diverse population in terms of ethnicity, religion, socioeconomic status, and care needs. Within three years, 10,000 patients had listed themselves. The increase had negative effects on care access, patient and staff satisfaction, productivity, and profit margins.

Patients called to book visits or consult with a nurse (RN). Failure to answer within one minute incurred a financial penalty, so three RNs were assigned to telephones. Fifteen-minute time-slots were reserved for acute same-day physician consultations. With too many patients, the practice was to double-book patients or refer them to other caregivers. This incurred penalties and lowered patient satisfaction. The typical care process involved two to four professionals: receptionist, physician, laboratory assistant, and nurse. Tests were conducted in an on-premises lab. The waiting room was crowded, and delays frustrated physicians. Temp agencies were used frequently. Because space and economic limitations prevented the hiring of more physicians, management wanted to increase productivity with existing staff.

The See-and-Treat intervention

One physician recognized that the time-slot approach impaired physicians' ability to see more patients if a visit took less than 15 minutes. The idea emerged to streamline unplanned visits through dedicated lab resources and patient self-triage. In consultation with the physician group, the sixteen most frequent presenting complaints were identified. After reviewing their own procedures for these complaints, standardized strategies for clinical examination were developed, discussed, and internally validated by the physicians.

Each standardized strategy was summarized in a paper "symptom form" consisting of two fields: an upper, with questions to be answered by the patient, and a lower checklist with common tests, diagnoses, and treatments for the lab and physician, with space for comments. With management support, a dedicated "acute" lab with tests that could be performed within 2 minutes was created in a rebuilt storage closet and staffed with a licensed practical nurse (LPN). Two examination rooms, a sitting area, and a separate entrance were eventually appropriated. Pilot-testing with patients began in October, 2013. Opening hours and days were stepwise increased until full implementation began in February, 2014. Key principles were:

- All patients that come are welcome.
- Every patient should meet a physician the same day he/she needs help.
- A standardized form specific to a patient's symptoms is used to collect patient and diagnostic information and forms the basis for documentation.
- Staff and facilities are dedicated to the See-and-Treat
- Patients with complex needs are referred to the other part of the PHCC after their visit.

Measures

Multiple data sources were used. Ten semi-structured interviews were conducted using a pilot-tested interview guide that explored the content and context of the intervention, its evolution over time, and staff perceptions. Participants (50% women) included the CEO of the parent company, the manager of the health care center, four physicians, two LPNs, one medical secretary, and one lab assistant. Interviews were conducted at participants' workplaces, lasted approximately one hour, were digitally recorded, and transcribed *verbatim*. Based on the interviews, we designed an observation protocol to map and observe care processes over four days (n=86 patients). Fourteen additional patients were observed in critical segments of the process to validate the analysis. Capacity data on physicians and listed patients were collected through administrative systems. Symptom forms provided information on presenting complaints. Data on volume and productivity were collected from the electronic health records (EHR) (weekdays from January 2013 to March 2015). Changes in volume were measured by calculating the total number of visits per 1000 listed patients, number of acute visits per 1000 listed patients, and number of telephone calls per 1000 listed patients. Since See-and-Treat patients could not be isolated in the EHR, we measured volume for all acute visits (See-and-Treat and unplanned visits scheduled as same-day acute visits). Total physician productivity was calculated as the total number of visits per physician per 1000 listed patients.

Patient satisfaction was measured with a paper-based questionnaire consisting of seven questions about the experience with a five-point Likert scale. It was distributed to all patients upon the completion of their visit during a three-week period one month after the intervention began.

Analysis

Interviews were analyzed with conventional content analysis (20). Meaning units related to content (i.e., the process steps and facility redesign), influential contextual factors, and how the process evolved were identified and coded (21). Observational data, which was analyzed to identify key activities, decision points, and resources utilized, helped refine and validate process maps.

Patient characteristics and satisfaction data were analyzed descriptively. Volume and productivity were analyzed quarterly (four time points before and after intervention). The time of intervention was set at February 2014 (first quarter of 2014 in the analysis). Data about the proportion of acute visits were not available for all months of observation; imputation using the same month's data was used when necessary. We controlled for changes in volume and productivity not related to the intervention by applying interrupted time-series (ITS) analysis using autoregressive integrated moving average (ARIMA) and time-series regression techniques for data obtained only from the period 13 months before and after implementation (22). ITS controls for secular trend and autocorrelation. Statistical analysis was performed using SPSS version 20 (IBM Corp., Armonk, New York, USA) with Data Forecasting functions. Due to the limited number of observations available, seasonal decomposition was not possible in SPSS and was performed in Microsoft Excel 2010 (Microsoft Corp., Redmond, Washington, USA).

Ethical considerations

Interviewees were informed that participation was voluntary and that they could withdraw at any time. Informed consent was obtained prior to the interviews. Data were treated to ensure confidentiality and anonymity. No personal data on patients was collected. Ethical vetting was obtained from the Stockholm Regional Ethics Committee (2014/1304-31).

Results

The intervention and its evolution

Patients calling to book same-day appointments were informed through an answering machine of the See-and-Treat option. At the PHCC, signs direct patients to a separate See-and-Treat entrance. In the waiting area, a sign instructs patients to take a queue number and select and fill out the most appropriate of sixteen symptom forms from a wall display. An LPN registers the patient, accepts payment, and chooses the relevant lab after a doctor had been consulted (if needed). The form with the lab results follows the patient into the examination room. The physician verifies the symptoms and performs a semi-standardized clinical examination with all the instruments set-up within arm's reach. A nurse follow-up is booked if needed. In total, the patients meet two to three professionals: the LPN, the physician, and sometimes a nurse. A medical secretary scanned the forms into the EHR. Based on observational data, average time with the physician was approximately 6 minutes, 12 seconds (s = 4 min 11 s) and total door-to-door time was approximately 28 minutes.

In 3.5% of patients, additional laboratory tests were needed. If the lab became a bottleneck, some patients (5%) were sent to the main lab. The LPN was eventually replaced by an RN to raise the competency level. To improve reporting quality, physicians began to dictate their notes, but after complaints from the medical secretary about the increased workload, physicians began to type directly into the EHR.

Signage proved inadequate as the LPN instructed 38% of patients about how to correctly choose and fill out the symptom form. Signage was therefore increased and redesigned. The most common complaints were adults or parents with children presenting with upper airway infections

(39%), followed by sore throats (13%), dermatological problems (11%), back pain (10%), lower urinary tract infections (9%), ear pain (9%), abdominal symptoms (4%), eye conditions (3%), headaches (2%), or needing a prescription renewal (1%).

Opening hours were increased from two mornings/week to weekday mornings and afternoons. On average, 5.4 physicians were on duty at the PHCC with one working at the See-and-Treat. During the morning rush (08.30-10.00), an additional physician could be called in.

Effects of the intervention

Effects on volume and productivity

Between January 2013-March 2015, physician visits numbered 49,260, of which 33.5% (n=16,496) were unplanned acute visits. See-and-Treat patients increased continuously and eventually stabilized at an average of 33 per day (s = 9.0). In total, 73,945 telephone calls were answered. Listed patients increased by 26% (9,072 to 11,404).

The intervention influenced the number of total and acute visits (Figure 1 and 2). Before implementation, there was a significant increase in total and acute visits: total visits/1000 listed patients increased by 7.0 per quarter (p=0.037); acute visits/1000 listed patients increased by 3.0 per quarter (p=0.019) during the year prior to implementation. One year after, the increase in total visits reversed to a trend towards reduction by 29.4 per quarter (p=0.119), and the increase in acute visits reversed to a statistically significant reduction (reduced by 26.7 per quarter (p=0.006)). Reduction in acute visits started the second quarter after implementation (-14.0 visits/1000 patients (p=0.019)).

<<<Insert Figure 1 here>>>

<<<Insert Figure 2 here>>>

The year prior to implementation saw a significant reduction in calls (by 52.0 calls/1000 patients per quarter (p=0.000)) (Figure 3). The year after implementation, the trend towards reduction in calls continued, but did not reach statistical significance (reduction by 21.4 calls/1000 patients per quarter (p=0.265)).

<<<Insert Figure 3 here>>>

Productivity did not increase (Figure 4). Before implementation, there was a small and non-significant increase in productivity (total number of visits/physician per 1000 listed patients by 2.5 per quarter (p=0.352)). The year after implementation, productivity increased, but did not reach statistical significance (an increase of a total number of visits/physician per 1000 listed patients by 9.6 per quarter (p=0.570)). Observational data showed a reduction in time-per-patient of up to 88%.

<<<Insert Figure 4 here>>>

Patient satisfaction

The 289 questionnaires that were collected revealed that most of the patients were very satisfied or satisfied with the care experience (Figure 5).

<<<Insert Figure 5 here>>>

Staff experience

Staff perceived that process standardization and the symptom forms increased efficiency and improved quality. Standardizing the physical layout and the symptom forms sped up consultations. Symptom forms contributed to information accuracy, a patient focus, adherence of patients to the care plan, and made it easier to quickly identify patients outside the See-and-Treat patient segment. Physicians described that an unexpected benefit of working in a standardized fashion was the increased ability to identify other pathological conditions. The merger of the payment and lab activities was also described as a time-saver.

Staff enjoyed working efficiently and at a high pace. All physicians had several years of ED or trauma care experience and highlighted the "rush" of helping many people quickly. LPNs felt satisfaction seeing patients express happiness about a smooth and efficient care experience.

The manager described that the increased productivity eventually led to a lowered reimbursement rate as the Fee-for-service had a predetermined ceiling negotiated annually. The manager did not see this as a reason to discontinue the project because the increased productivity meant that the concerns of more patients could be addressed and reliance on temporary physicians could be reduced. It also created an opportunity to renegotiate terms.

Observed associations between outcomes, interventions, and relevant contextual elements

Observations revealed inconsistencies, which could explain the non-significant increase in productivity. While all physicians discussed the importance of establishing optimal and standardized protocols, they often deviated from these, adding additional examinations based on their personal preference and experience. We found several examples of "mission creep" where

the limitations imposed by the symptom forms were ignored or overruled if the physician thought the question could be resolved quickly, e.g., writing sick-leave certificates. Patients presenting with symptoms not covered by the symptom forms, e.g., chronic conditions, were seldom redirected. One doctor worried that the See-and-Treat could thereby lose the very qualities that made it unique and instead become "a small PHCC within the PHCC".

Discussion

The translation of the See-and-Treat approach to primary care led to a significant decrease in acute visits and a decrease in a total number of visits. The pre-existing trend of diminishing telephone contacts continued. A non-significant increase in physician productivity was observed. Overall, patients were very satisfied and staff perceived improved efficiency and quality.

The reduction in visits and telephone contacts could indicate that, somewhat paradoxically, increasing access to primary care physicians does not "open the floodgates" and increase demand, as was reported for Walk-in and retail clinics (4,10). Indeed, the introduction of access barriers, such as telephone triage, can increase care utilization (23). An explanation could be that the knowledge that care is readily available could decrease the inclination to book appointments as precautionary measures against eventualities. It remains to be seen how reducing mission creep or task-shifting to nurses could impact outcomes.

Despite treating substantially more patients per unit time (up to ten patients/hour instead of four), the increase did not reach statistical significance. A partial explanation is the drop in the use of temporarily employed physicians. Spending more time on patients with complex conditions or administrative tasks are both plausible explanations.

Nurse-driven triage systems can increase accessibility in primary care (24), but the use of patient-driven triage is novel. The symptom form directly involved patients in their care process and can be seen as a step towards more patient-driven co-care. Similar patient self-triage tools can be as accurate as traditional triage systems in EDs (25), and improve efficiency, quality, and reduce waiting times in other areas (26,27).

Our findings also highlight the importance of patient and staff education to support awareness of new services and to engender patient involvement and move beyond patients as passive recipients of care. It remains to be seen if personal interest in emergency care predisposes particular physicians for See-and-Treat. If so, interventions that help others see the value of investing resources and infrastructure for "simple cases" may be important to support further dissemination.

Limitations

Several measures were employed to strengthen reliability and internal validity. Interview and observation protocols guided data collection. Multiple data sources were triangulated and particular attention was paid to the interaction between the intervention as recommended by SQUIRE 2.0.

External validity was limited by the single-case study design. However, the uniqueness of the See-and-Treat with patient self-triage made any other design difficult. Future studies could focus on translation of See-and-Treat to multiple PHCCs and include performance measures beyond volume and productivity, such as quality of care, costs, and utilization of ED services.

We were limited to analyzing intervention effects on the PHCC's acute visits as See-and-Treat patients were not identifiable in the administrative system. This could have diluted the effect of the intervention. The continued reduction in telephone contacts could have also been influenced

by the nationwide implementation of a web-based information and communication services platform. Information about non-responders would have strengthened the patient experience analysis. However, this was difficult to collect within the resource and logistical constraints of the study – symptomatic of the challenges of quality improvement research in clinical settings with high patient throughput.

Conclusion

This study describes how a See-and-Treat process tailored to meet the needs of patients with less severe conditions in an efficient manner may be a new model for primary care to consider. As a first exploration of a See-and-Treat application in primary care, three essential differences from WIC and RC were identified:

1. It is part of a primary care setting (not adjacent to a hospital, ED, nor in a pharmacy)
2. It is staffed with physicians, not nurses
3. A patient self-triage tool is utilized that contributes to patient involvement and standardization of the care process.

These aspects most likely contribute to improved access by improving the efficiency and quality of the service. Seen within the context of a primary care center, more consistent use of the patient-triage system to limit which patients are seen and prevent mission creep, could increase physician productivity further. The use of digitalized process tools could also improve efficiency and quality, especially for documentation. Efficiency gains could be shifted to other patient segments, such as patients with chronic conditions. The structured engagement of patients in self-triage could be translated to other contexts, such as EDs or for scheduled visits to outpatient specialist centers.

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Authors' contributions

[redacted], and [redacted] designed the study. [redacted] recruited participants and together with [redacted] and [redacted] collected the process and interview data as part of a bachelor's thesis project. [redacted] and [redacted] conducted the observations. [redacted] conducted the qualitative analyses. [redacted] [redacted] discussed the design and results of the quantitative analyses conducted by [redacted] [redacted]drafted the manuscript, drawing upon the thesis written by [redacted]supervised by [redacted]. [redacted]revised the manuscript. All authors read, contributed to, and approved the final manuscript. [redacted]were the PIs.

References

1. Atun R. What are the advantages and disadvantages of restructuring a health care system to be more focused on primary care services ? World Heal Organ Heal Evid Netw WHO Reg Off Eur Copenhagen. 2004;(January).
2. McCarthy K, McGee HM, O'Boyle C a. Outpatient clinic waiting times and non-attendance as indicators of quality. Psychol Health Med. 2000;5(3):287–93.
3. Grumbach K, Keane D, Bindman A. Primary care and public emergency department overcrowding. Am J Public Health. 1993;83(3):372–8.
4. Salisbury C, Chalder M, Scott TM, Pope C, Moore L. What is the role of walk-in centres in the NHS? BMJ. 2002 Feb;324(7334):399–402.
5. Salisbury C, Munro J. Walk-in centres in primary care: a review of the international literature. Br J Gen Pract. 2003;53(486):53–9.
6. Tan S, Mays N. Impact of initiatives to improve access to, and choice of, primary and urgent care in the England: A systematic review. Health Policy (New York) [Internet]. 2014;118(3):304–15. Available from: http://dx.doi.org/10.1016/j.healthpol.2014.07.011
7. Rudavsky R, Pollack CE, Mehrotra A. The Geographic Distribution, Ownership, Prices, and Scope of Practice at Retail Clinics. Ann Intern Med. 2009 Sep;151(5):315.
8. Arain M, Nicholl J, Campbell M. Patients' experience and satisfaction with GP led walk-in centres in the UK; a cross sectional study. BMC Health Serv Res [Internet]. 2013;13:142. Available from: http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3637583&tool=pmcentrez&rendertype=abstract

9. Grant C, Nicholas R, Moore L, Salisbury C. An observational study comparing quality of care in walk-in centres with general practice and NHS Direct using standardised patients. [Internet]. Vol. 324, BMJ (Clinical research ed.). 2002. p. 1556. Available from: http://www.ncbi.nlm.nih.gov/pubmed/12089094%5Cnhttp://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC116613

10. Chapman JL, Zechel A, Carter YH, Abbott S. Systematic review of recent innovations in service provision to improve access to primary care. Br J Gen Pract [Internet]. 2004;54(502):374–81. Available from: http://bjgp.org/content/54/502/374.abstract

11. Rohrer JE, Angstman KB, Garrison GM, Maxson JA, Furst JW. Family Medicine Patients Who Use Retail Clinics Have Lower Continuity of Care. J Prim Care Community Health [Internet]. 2013;4(2):150–3. Available from: http://jpc.sagepub.com/cgi/doi/10.1177/2150131912471683

12. Jones M, Wilkie P, Logan A, Shah C, Feldman W, Cullum C, et al. Walk-in primary medical care centres: lessons from Canada. BMJ. 2000 Oct;321(7266):928–31.

13. Salisbury C. Do NHS walk-in centres in England provide a model of integrated care? Int J Integr Care [Internet]. 2003;3(August):e18. Available from: http://www.ncbi.nlm.nih.gov/pubmed/16896375%5Cnhttp://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC1483943

14. Parker RM, Desborough JL, Forrest LE. Stakeholder perceptions of a nurse led walk-in centre. BMC Health Serv Res. 2012;12:382.

15. Mazzocato P, Thor J, Bäckman U, Brommels M, Carlsson J, Jonsson F, et al. Complexity complicates lean: lessons from seven emergency services. J Health Organ Manag.

2014;28(2).

16. Mazzocato P, Unbeck M, Elg M, Sköldenberg OG, Thor J. Unpacking the key components of a programme to improve the timeliness of hip-fracture care: a mixed-methods case study. Scand J Trauma Resusc Emerg Med [Internet]. 2015;23(1):93. Available from: http://www.sjtrem.com/content/23/1/93

17. Rogers T, Ross N, Spooner D. Evaluation of a “see and treat” pilot study introduced to an emergency department. Accid Emerg Nurs. 2004 Jan;12(1):24–7.

18. Yin RK. Case study research: design and methods [Internet]. 3rd ed. Applied social research methods series ; Thousand Oaks, Calif.: Sage Publications; 2003. xvi, 181 . Available from: http://www.loc.gov/catdir/enhancements/fy0658/2002152696-d.html

19. Ogrinc G, Davies L, Goodman D, Batalden P, Davidoff F, Stevens D. Standards for QUality Improvement Reporting Excellence 2.0: revised publication guidelines from a detailed consensus process. J Surg Res. 2016;200(2):676–82.

20. Hsieh H-F, Shannon SE. Three approaches to qualitative content analysis. Qual Health Res [Internet]. 2005 Nov [cited 2014 Jul 9];15(9):1277–88. Available from: http://www.ncbi.nlm.nih.gov/pubmed/16204405

21. Pettigrew AM, Whipp R. Managing Change for Competitive Success. Oxford: Marston Book Services, Ltd.; 1993. 323 p.

22. Ramsay CR, Matowe L, Grilli R, Grimshaw JM, Thomas RE. INTERRUPTED TIME SERIES DESIGNS IN HEALTH TECHNOLOGY ASSESSMENT: LESSONS FROM TWO SYSTEMATIC REVIEWS OF BEHAVIOR CHANGE STRATEGIES. Int J Technol Assess Health Care [Internet]. 2003 Dec 21 [cited 2017 Dec 22];19(4):613–23. Available from:

http://www.journals.cambridge.org/abstract_S0266462303000576

23. Campbell JL, Fletcher E, Britten N, Green C, Holt TA, Lattimer V, et al. Telephone triage for management of same-day consultation requests in general practice (the ESTEEM trial): A cluster randomised controlled trial and cost-consequence analysis. Lancet. 2014;384(9957):1859–68.

24. Thorn J, Maun A, Bornhöft L, Kornbakk M, Wedham S, Zaffar M, et al. Increased access rate to a primary health-care centre by introducing a structured patient sorting system developed to make the most efficient use of the personnel: a pilot study. Heal Serv Manag Res [Internet]. 2010;23(4):166–71. Available from: http://www.ncbi.nlm.nih.gov/pubmed/21097727

25. Eijk ES V, Busschbach JJ V, Monteban H, Timman R, Wefers Bettink-Remeijer M. Towards patient self-triage in the ophthalmic emergency department: sensitivity and specificity of a self-triage instrument. Acta Ophthalmol. 2014;92(7):697–700.

26. Harindra V, Tobin JM, Tucker LJ. Triage clinics: a way forward in genitourinary medicine. Int J STD AIDS [Internet]. 2001;12(5):295–8. Available from: http://www.ncbi.nlm.nih.gov/pubmed/11368801

27. Hitchings S, Barter J. Effect of self-triage on waiting times at a walk-in sexual health clinic. J Fam Plan Reprod Heal Care [Internet]. 2009;35(4):227–31. Available from: http://www.ncbi.nlm.nih.gov/pubmed/19849916

Figure Legends

Figure 1. Total number of visits per 1000 listed patients from the first quarter of 2013 to the first quarter of 2015 (after adjustment for seasonality). Dotted vertical line indicates time of implementation of the See-and-Treat.

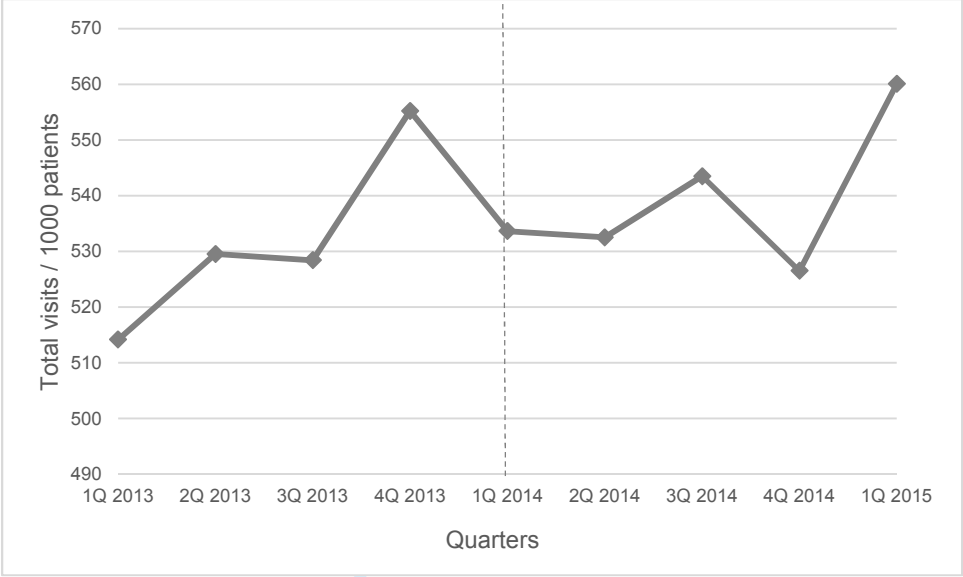
Figure 2. Number of acute visits per 1000 listed patients from the first quarter of 2013 to the first quarter of 2015 (after adjustment for seasonality). Dotted vertical line indicates time of implementation of the See-and-Treat.

Figure 3. Number of telephone calls per 1000 listed patients from the first quarter of 2013 till the first quarter of 2015 (after adjustment for seasonality). Dotted vertical line indicates time of implementation of the See-and-Treat.

Figure 4. Total number of visits/physician per 1000 listed patients from the first quarter of 2013 to the first quarter of 2015 (after adjustment for seasonality). Dotted vertical line indicates time of implementation of the See-and-Treat.

Figure 5. Results of the patient questionnaire.

Figure



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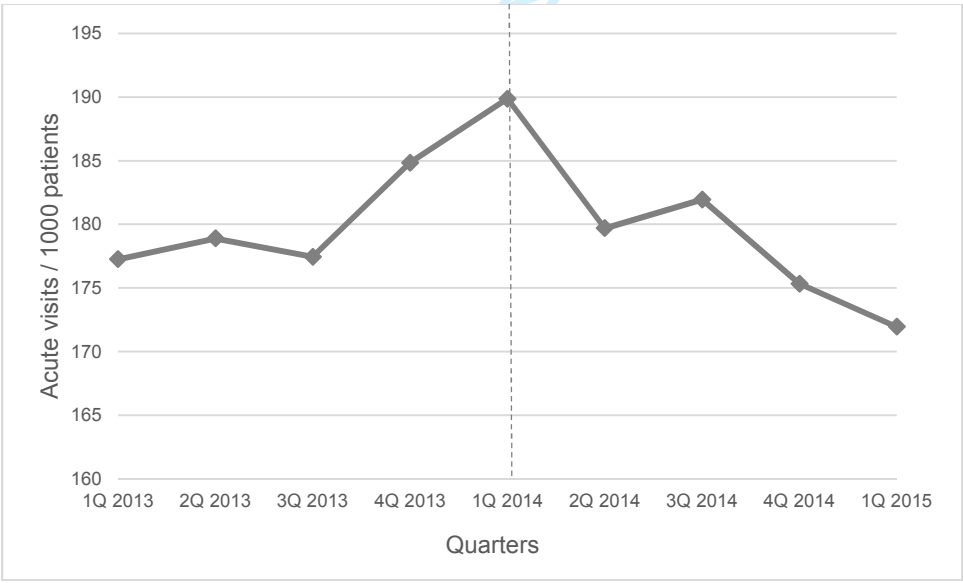

Figure 2. Number of acute visits per 1000 listed patients from the first quarter of 2013 to the first quarter of 2015 (after adjustment for seasonality). Dotted vertical line indicates time of implementation of the See-and-Treat.

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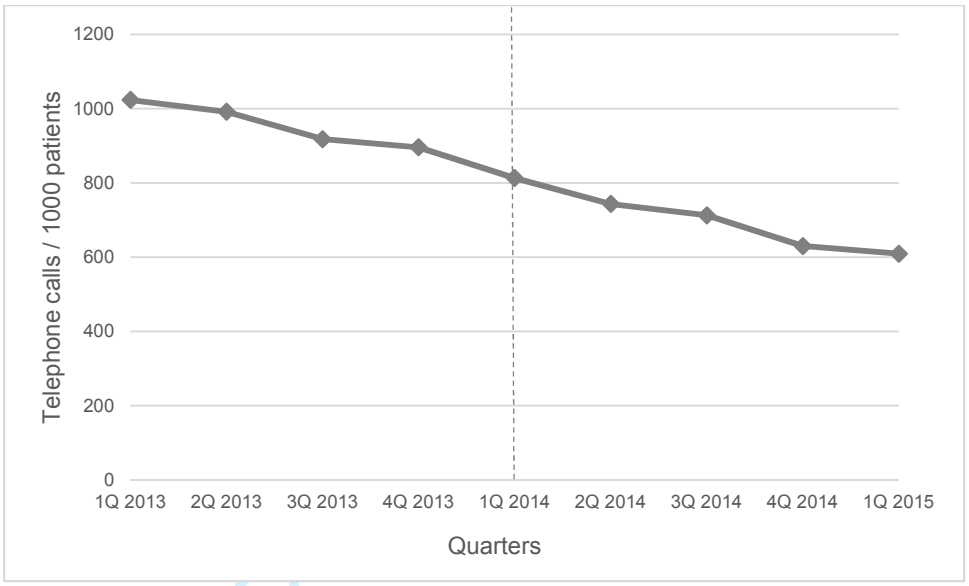

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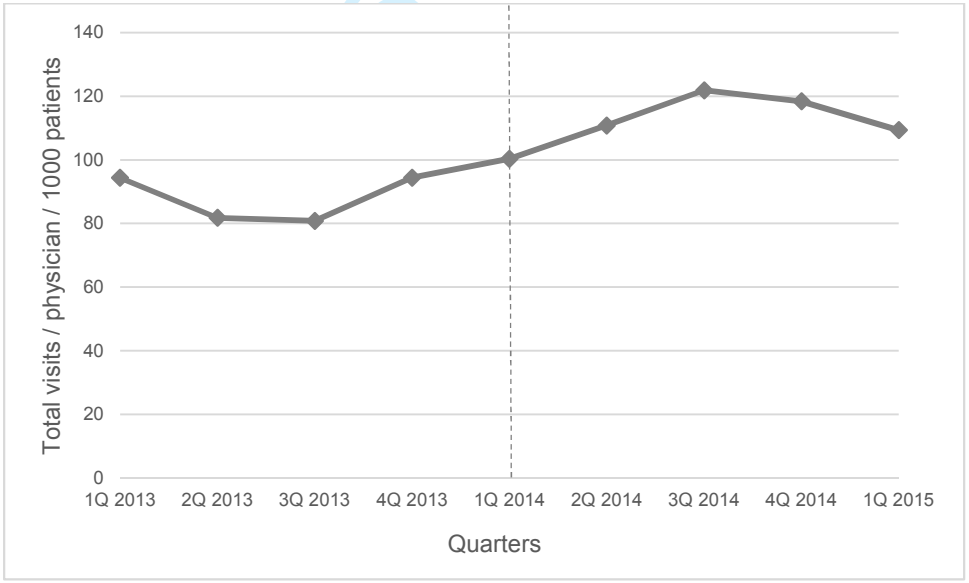

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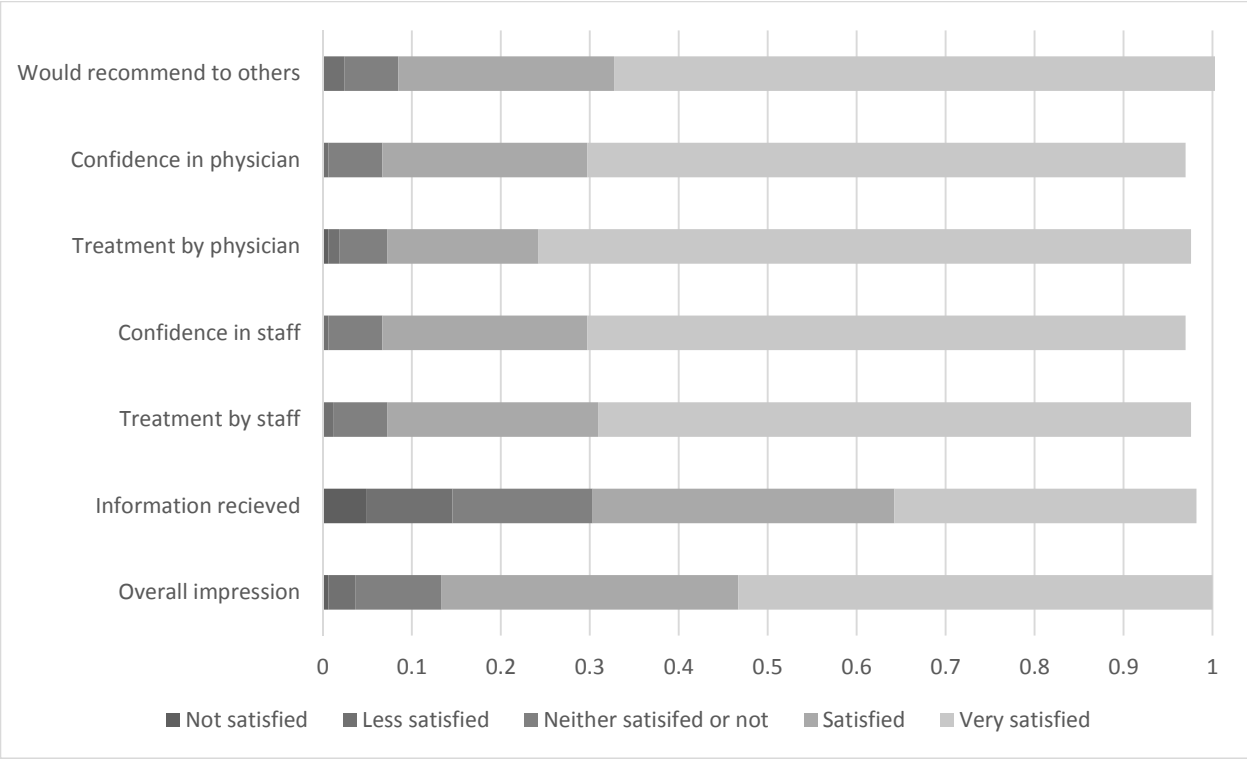

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