Promoting Continuity of Care Should be Integral to Any Healthcare System

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This paper reviews continuity of care from a people, process and technology international perspective and makes recommendations on how healthcare systems should support continuity of care.

Key Findings

- Definitions of continuity of care are often presumed rather than stated, and it is not possible to measure what is not clearly defined.

- Developing an integrated continuity of care strategic plan across a healthcare system requires a redesign of clinical processes, redefined roles for clinicians and the use of integrated healthcare information systems (that adhere to predefined standards) across primary and acute care.

- There is a standardised model for the continuity of care record for the USA and UK. Integrated EMR systems offer better bi-directional information flow once the data sets are agreed and standardised (e.g., the UK Choose and Book electronic referral system).

- Continuity of care is associated with improved patient satisfaction, increased use of appropriate preventive health services, greater medication adherence, lower hospitalisation rates, more appropriate end of life care, and lower cost.

- Lower continuity of care is associated with increased hospital admissions and emergency visits, even in a health care system that lacks a referral arrangement framework.

- When care is delivered by multiple providers across a healthcare system, then processes/systems to ensure informational and management continuity become critical to patient safety.

- Changes in health care systems (e.g., Canada, UK) have reduced the possibility for continuity of care due to increasing fragmentation of healthcare delivery owing to the rising number of agencies and organisations delivering healthcare, use of specialty clinics for specific problems with visits to walk-in clinics not connected to general practices.
Clinician incentives and use of multi-disciplinary teams has promoted improvement in care for both patients with chronic diseases and elderly patients with co-morbid conditions.

Recommendations

- Develop a continuity of care policy for the healthcare system.
- Clinical transformation and redesign must be key priorities with technology used to underpin and support these initiatives.
- Ensure a communications plan with patients that outlines that doctors can look after them better if they are seeing a patient they know. Focus should be placed on patients from socio-economically deprived populations who have the greatest burden of illness, the greatest need for continuity of care and yet the lowest ability to navigate the administrative barriers within a healthcare system.
- Expanded and better use of "intelligent" technology to include on-line booking systems, integration of information systems, EMR (using standardised data sets e.g., electronic referrals, electronic discharge summaries) between providers across primary and acute care; email/social networking contact with doctors so that continuity can be maintained. Many doctors like this idea but are terrified of the workload implications. This is an issue for professional negotiators to resolve: with adequate remuneration, there is no reason why this form of consultation should not become part of routine care. Indeed, this may increasingly be expected by a younger generation.
- Primary care practices need to arrange better continuity of care for patients through doctor pooling who see each others’ patients when one is away.
- Identify patients with particularly complex problems who should only be seen by a restricted number of doctors. Use technology to ensure this is flagged and monitored.
- Develop better questions on continuity of care in patient surveys and make sure they are included in patient assessments of care.
- Where countries have arrangements for regular appraisal of doctors or periodic revalidation or recertification, include questions on how a doctor’s practice is organised to provide relational continuity.
- Provide practical guidance for doctors on building and sustaining good relationships with patients. Support patients and professionals to maintain these relationships, and adjust them in order to reflect changes in the patient’s preferences, needs or social circumstances.
- Monitor and incentivise relationship continuity and management continuity.
- Monitor levels of continuity, either from healthcare information systems or patient-reported experiences.
- Develop staff training programmes that promote continuity and change in culture.
- Provide additional help for patients who may experience access difficulties – for example, because of language or learning difficulties, cultural differences, physical disability, mental health problems or social isolation.
• Enable better management continuity by the use of healthcare information systems and electronic communication; timely availability of relevant clinical information – particularly from hospitals (preferably electronically in a standardised format); personal contact between providers, including regular meetings and informal discussion; establish routines for handovers and exchange of information; proactive follow-up of patients after significant life events or health events.

• Monitor continuity of care: through audit of aspects of access, coordination, communication and patient experience, including identifying and analysing significant events that may indicate specific problems, and seek to make improvements.

• Measure continuity of care: the ability to monitor the interplay between access and continuity is seriously limited by the inability of current information systems to provide available and complete information or to provide robust routine data on patients’ patterns of contact with professionals. Continuity and coordination across organisational and professional boundaries is of prime importance in achieving good outcomes for patients with long-term conditions, and one way forward may be to develop specific assessments linked to patient experiences of care. Multiple measures are needed to capture all aspects of continuity; no single measure is able to reflect the whole concept.

• Involve patients in developing policy on continuity and producing patient information. Patients remain poorly engaged in making decisions about their own health and more could be done to support patients to make choices, to be engaged in decision-making, and to care for themselves. There is considerable scope to improve the quality of care coordination for patients with long-term chronic and mental illnesses, for those at the end of life, and in maternity care. Links between general practice and other services need to be strengthened in areas where patients with complex problems receive care from multiple providers.

• The skill-mix in healthcare systems will need to evolve, to include a wider range of professionals working within and alongside it. Delivering high-quality care also requires new models of shared care to be developed with other care providers, including those working in the community, in hospitals, and in care and well-being services. Multi-specialty local clinical partnerships need to develop integrated services across boundaries (technology will play a key part in information sharing).

• Review the informational needs to support continuity of care in terms of standardised data sets between primary and acute care.

• Develop analytic tools to help monitor, measure and evaluate the continuity of care provision. Measures based on patterns of health service use should be used with caution as indicators of continuity until there is certainty that they reflect informational, relational, and/or management continuity.

• Develop integrated EMR systems (see Gartner paper on EMR approaches) across the continuum of care (primary to acute/secondary) to streamline data sharing and clinical workflows with the ability to measure outcomes.
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Strategic Planning Assumption(s)

All around the world, healthcare services are undergoing significant reforms. Healthcare providers, policy-makers and patients are increasingly expressing concern about fragmentation of care. Rapid advances, new treatments and shifts in care from institutional to outpatient and home settings mean that patients may see an ever expanding array of different types of providers in a variety of organisations and places; connecting the components into a smooth care trajectory is increasingly difficult. Continuity of care is conventionally described in terms of three concepts: relational continuity, informational continuity and management continuity. The last two have become more important as care has become more complex and more fragmented. When patients had a single doctor who knew all their problems, informational and management continuity were provided by the doctor’s knowledge of the patient. When care is delivered by multiple providers, then systems to ensure informational and management continuity become critical to patient safety. Continuity of care is how one patient experiences care over time as coherent and linked; this is the result of good information flow (using the right healthcare information systems), good interpersonal skills, and good coordination of care using adequately trained and qualified healthcare professionals. Continuity of care occurs when separate and discrete elements of care are connected and when those elements of care that endure over time are maintained and supported. Definitions of continuity are often presumed rather than stated, and it is not possible to measure what is not clearly defined. Continuity of care means different things to different types of caregivers, but all recognise three types: continuity of information, of personal relationships and of clinical management. Informational continuity means that information on prior events is used to give care that is appropriate to the patient's current circumstance. Relational continuity recognises the importance of knowledge of the patient as a person; an ongoing relationship between patients and providers is the undergirding that connects care over time and bridges discontinuous events. Relationship continuity is especially important for older patients, because of the greater likelihood of multiple chronic conditions that benefit from informed management and shared decision making. Management continuity ensures that care received from different providers is connected in a coherent way; it is usually focused on specific, often chronic, health problems. Generally, relationship continuity is highly valued by patients and clinicians, and the balance of evidence suggests that it leads to more satisfied patients and staff, reduced costs and better health outcomes.

The way in which primary care services were traditionally organised generated good levels of relationship continuity, and general practitioners (GPs) did not need to promote this aspect of care. However, recent developments – in particular, the increasing specialisation and fragmentation of healthcare services, changing professional work patterns and the emphasis on rapid access, have raised concerns that relationship continuity is becoming more difficult to achieve. In this context, professional leaders must recognise that relationship continuity can no longer be taken for granted, and that clinicians must play a more active role to make it possible. The GPs clinical responsibility is as coordinator of care for patients which includes helping patients to understand and plan their treatment, navigate unfamiliar services successfully, remain engaged with their care, and receive comprehensive, personalised, holistic and coordinated care.
Coordinated care includes offering interpersonal continuity, so that patients know which professional is responsible for coordinating their care and how to contact them, and doctors know which patients they are responsible for. The multidisciplinary team also help patients to reconnect with services or systems when they experience discontinuities or fragmentation of care. As multidisciplinary teams expand, clinicians other than GPs (such as practice nurses or community matrons) are increasingly taking similar roles in coordinating care, and this input is highly valued by their patients. Management continuity also has an organisational dimension, in ensuring that the multidisciplinary team and the processes and technology supporting it work effectively and efficiently. Better informational flow from primary to acute care (bi-directionally) enabled by technology (in a standardised format) is key to underpin continuity of care services.

Continuity of care becomes increasingly important for patients as they age, develop multiple morbidities and complex problems, or become socially or psychologically vulnerable. However, generalisations can be misleading, since relationship continuity has been shown to be valued by patients in many different circumstances. It is now recognised that patients play a substantial part in securing continuity, which requires good social and negotiating skills, especially when access is difficult. For example, patients are often faced with making a choice between rapid access to care and seeing their clinician of choice. Under these circumstances, people with less confidence, less education and poor language skills may need support and encouragement from clinicians and healthcare staff to achieve continuity. Good relationships cannot be prescribed, but they can be encouraged by sufficient opportunity to see the same clinician. Management continuity is also important in healthcare systems by sharing information, good communication within the team and establishing information systems that supported effective patient management. Attempts to coordinate care between primary and acute care is often a source of frustration. When patients receive care from a variety of sources, connecting that care into a smooth trajectory becomes increasingly difficult with the biggest problems being related to information flows and disjoined technology. Policy reports worldwide urge a concerted effort to avoid fragmentation and enhance continuity of care. But efforts to describe the problem or formulate solutions are hampered because continuity has been defined and measured in a myriad of ways.
Analysis

In the USA, the Continuity of Care Record (CCR) is a standard specification developed jointly by five organisations:

1. ASTM International - one of the largest voluntary standards development organizations in the world—a trusted source for technical standards for materials, products, systems, and services.

2. Massachusetts Medical Society (MMS) - the oldest continuously operating medical society in the United States.

3. Health Information Management and Systems Society (HIMSS) - the healthcare industry's membership organisation exclusively focused on providing leadership for the optimal use of healthcare information technology (IT) and management systems for the betterment of healthcare.

4. American Academy of Family Physicians (AAFP) - one of the largest medical organizations in the United States with a mission to improve the health of patients, families, and communities by serving the needs of its members with professionalism and creativity.

5. American Academy of Pediatrics (AAP) – a non-profit organization reflected the physician’s commitment to children and the specialty of pediatrics.

The CCR was created to foster and improve continuity of patient care, reduce medical errors, and assure a standard of health information transportability when a patient is referred or transferred to another provider. The CCR is being developed and enhanced in response to the need to organise and make transportable a set of basic patient information consisting of the most relevant and timely facts about a patient's condition. The CCR is a proposed standard for exchanging basic patient data between one care provider and another to enable this next provider to have ready access to relevant patient information. The CCR is technology-neutral and vendor-neutral. However, it is offered as an XML platform that can stand alone or can be transformed into the Health Level Seven (HL7) Clinical Document Architecture (CDA). Although the CCR can be used without interfacing to an electronic medical record (EMR) on either the sender or receiver side, a compliant EMR or other clinical information system should be able to both import and export CCR data. The CCR contains the following major data categories:

- Document identifying information;
- Patient identifying information;
- Patient insurance/financial information;
- Advance directives;
- Patient health status;
- Diagnosis, problems and conditions;
- Family history;
- Social history and health risk factors;
- Adverse reactions/alerts;
• Current medications and relevant history;
• Immunisations;
• Vital signs and physiological measurements;
• Laboratory results;
• Procedures/imaging;
• Health status assessments;
• Care documentation;
• Care plan recommendation.

In the UK, the Summary Care Record (SCR) is the standard interoperable transportable record. The SCR contains the following major data categories:

• Document identifying information;
• Patient identifying information;
• Diagnosis, problems and conditions;
• Adverse reactions/alerts;
• Current medications and relevant history;

The SCR is designed to give access to healthcare staff to help prevent mistakes being made when receiving treatment in an emergency or when the GP practice is closed. SCR data is held on the National data Spine. Clinicians have reported benefits with:

• Increased clinical confidence;
• Easier mental healthcare, assessments and treatment;
• Better prescribing safety;
• Reduced referrals to hospital from out of hours services;
• Medication reconciliation;
• Reduced admin entering patient information.

SCR facts: 41 million patients informed about the scheme, 1.34% opted out. 21 million records created across 3,031 primary care practices.

Most doctors can provide examples of how their understanding and management of their patients’ complex problems has resulted in reduced use of emergency departments and hospital beds. Many physicians are also likely to mention the high levels of satisfaction they have gained from their relationships with these patients. Evidence suggests that continuity of care improves the uptake of preventive care, enhances adherence to therapy, and increases patient and doctor satisfaction. There is increasing evidence that patients’ health status and chronic disease outcomes are improved with continuity of care. The cost-effectiveness of medical care has garnered much attention lately, which raises the question of whether continuity of care improves cost-effectiveness and decreases the number of visits to the emergency department and
admissions to hospital. Studies support that high provider continuity is associated with lower emergency department use among patients supported by Medicaid in the US; similar results were found in a pediatric population in the US, where increased continuity of care was associated with a decreased number of visits to the emergency department and admissions to hospital. Other studies support that higher continuity of care reduces emergency department and hospital admission rates too, especially in the elderly population with chronic diseases. Elderly patients are the heaviest users of the health care system and are rapidly growing in numbers. Reducing costs and improving efficiency in healthcare delivery for this age group has the potential of more cost-effective care.

In many countries family practitioners are self-employed and able to organise their practices as they wish. In the UK, they increasingly do so in ways that make it difficult for patients to get continuity of care. This is despite most patients being clear that they want to see a regular doctor, and professional bodies in primary care consistently promoting continuity as a core value. To overcome this in the UK, for example, GPs were given financial incentives to promote continuity of care. However, the UK has done extensive work on the technology side of things with information exchange electronically for referrals (the Choose and Book system) and electronic discharge summaries from acute to primary care, as well integration of laboratory information systems for electronic results reporting. One emerging risk to continuity of care, however, is a generation of young doctors is emerging from hospital training without any experience of having personal responsibility for a defined group of patients. The idea that a problem is one that can always be passed on to someone else is incompatible with an ethos of personal responsibility that is fundamental to relational continuity. Patients are getting older, more with complex co morbidities that require a personal physician to help coordinate and integrate their care. At the same time, doctors are less able to provide that care. In response to this, healthcare systems are employing a new generation of healthcare workers whose job appears to be to do what the GP used to do. In the UK, these new workers have titles such as ‘case managers’ or ‘community matrons’. It is in fact impossible for a single person to provide high quality care for people with multiple complex problems, but that does not mean that the doctor should not be at the core of coordinating and integrating a patient’s care.

Continuity is the result of a combination of adequate access to care for patients, good interpersonal skills, good information flow and uptake between providers and organisations, and good care coordination between providers to maintain consistency. For patients, it is the experience of care as connected and coherent over time. For providers, it is the experience of having sufficient information and knowledge about a patient to best apply their professional competence and the confidence that their care is recognised and pursued by other providers. There are substantial gaps in the range of instruments to measure continuity. This is particularly true of instruments that measure the transfer and use of information (whether medical or contextual) by providers in most care contexts as well as those that measure consistency of care among providers and across organisational boundaries. Lower continuity of care is associated with increased hospital admissions and emergency visits, even in a healthcare system that lacks a referral arrangement framework. This suggests that improving the continuity of care is beneficial both for patients and for the healthcare system. Continuity of care was related to better preventive health care and reduced emergency use. Having a long-term relationship with a single doctor makes a difference even in a universal healthcare system. Moreover, socioeconomic disparities remain, suggesting the need to target specifically individuals from lower socioeconomic strata for preventive health care. Clinical outcomes are the ultimate measure of quality, but good outcomes can be achieved only if there is agreement on what they are, and if appropriate structures and processes for achieving them are in place. More diverse and creative approaches for assessment and improvement of quality are needed, including the use of audit, peer review and qualitative research methods. Standards are required to ensure the quality and completeness of data.
recorded and shared. Standardised methods for defining and applying indicators are also needed, to ensure comparability between indicators in different areas or reported by different agencies. Greater transparency of information on quality is both welcome and proper, but the presentation of information needs to be tailored so that it can be used by clinicians for peer review, by patients for choice, and by those concerned with accountability. There are many different sources of information about quality. There is an urgent need for these to be rationalised in order to avoid duplication. Higher continuity is associated with a higher level of trust between a patient and doctor. Efforts to improve the relationship between patients and doctors may improve the quality and outcomes of care. Therefore, it is recommended to take into account and further examine the influence of contextual elements of healthcare provision and individual factors (socio-demographic characteristics and different pathologies) on continuity across boundaries.

**Recommended Reading**

*Some documents may not be available as part of your current Gartner subscription.*

- Magic Quadrant for Global Enterprise Electronic Health Record Systems
- Top Actions for the Healthcare CIO: Ignore EHR usability at Your Own Peril
- A Clear Definition of the Electronic Health Record
- Electronic Health Records Key Initiative Overview

**Acronym Key and Glossary Terms**

- **EMR** Electronic medical record
- **GP** General practitioner
- **SCR** Summary care record
Evidence


