

GP continuity- the keystone of general practice

Kate Sidaway-Lee¹, Denis Pereira Gray¹, Nada Khan², Lispeth Abraham², Philip Evans^{1,2}

1. St Leonard's Practice Exeter
2. University of Exeter Medical School

Continuity of care has long been recognised as a core feature of general practice. Relational continuity is associated with multiple, overlapping benefits for patients, doctors and society. Continuity increases trust, patient satisfaction and adherence to advice while reducing hospital use and deaths. Repeated consultations are needed with a patient for a GP to acquire enough 'accumulated knowledge' to develop a sense of continuing responsibility. This fosters GP sensitivity and mutual understanding, which enable GPs to provide 'higher-level' quality of care. However, the level of continuity is reducing in general practice in the UK. This article provides the context of international research on continuity of care and describes ways to begin to improve continuity.

Key points

- Relational continuity of care is key feature of general practice and it has been shown to be associated with a range of benefits for doctors, patients and health systems.
- Continuity levels have been falling in the UK for years but not in comparable countries and within the UK there are some practices maintaining or improving continuity levels.
- To have good levels of continuity, particularly in larger practices, a system is needed.
- Personal lists are the most researched system for providing continuity, however microteams or buddy systems may also be useful.
- A project for improving continuity needs whole-practice involvement and measuring is essential to demonstrate whether improvement has occurred.
- Although GPs may find the transition to providing continuity difficult at first, research shows that in the long run it is likely to reduce their workload.

Case scenario

Background - without continuity

Mrs Angela Smith is a healthy 45-year-old woman. No previous medical history, non-smoker, light drinker.

Background - with continuity

Angela is a 45-year-old woman, registered with you since she moved locally to live near her Mum at 25. She is a medical secretary at a local hospital, has sons 15 and 17, both with important school exams this year. Her husband is a long-distance driver and is away Monday to Friday. Angela's Mum, aged 65 (also your patient), has been unwell since breaking her hip and needing a hip replacement. You saw Angela more when the children were young, you see her every couple of years now.

What is continuity of care in general practice?

Continuity definitions

This article focuses on relational continuity which is the professional relationship between a clinician and patient. This is also sometimes called interpersonal or therapeutic continuity. The long-term relationship which is built up through having the same clinician over many years, is sometimes called longitudinal continuity. Patients can have relational continuity with more than one clinician. But here we discuss continuity which arises from repeated consultation by patients with the same GP, regardless of contacts they may have with other members of the primary care team.

The focus is on GPs because the vast majority of the published research is on doctor continuity particularly with GPs. We cannot be sure the outcomes will also apply to other team members. Hundreds of thousands of GP consultations now occur annually in the UK between GPs and patients who do not know each other whilst research shows that if GPs can see patients they do know, great efficiency gains are likely.

Other concepts include continuity of patient care between clinicians and healthcare settings to avoid gaps in care and to ensure steps in patient care pathways occur smoothly with continuity of information and cross-provider communication. Relational continuity may also help to prevent gaps in care but is a human effect, based on knowledge, familiarity, trust and responsibility.

The RCGP highlights the importance of continuity and its impact on care in their recent definition of a GP: "GPs have distinct expertise and experience in providing whole person medical care whilst managing the complexity, uncertainty and risk associated with the continuous care they provide... ..Through confidential trusted partnerships with their patients (characterised by empathy and mutual trust, without bias or judgement), GPs provide evidence informed personalised care".

A human effect

When two people meet, information is exchanged, predominantly non-verbally. This includes observations about the other and is influenced by anything previously known, the setting and the duration of the meeting. Research in psychology found that repeated contact between two human beings made them feel better disposed towards each other (Zajonc, 1968). A patient–doctor consultation is a special case of human interaction, as the patient may be anxious and anxiety enhances memory recall, so patients often remember what a doctor said for years. Unfamiliar situations and doctors are anxiety-provoking. Typically only about 5% of what the patient says is recorded, as doctors' notes focus on medical findings and actions.

At subsequent meetings, the patient and doctor both absorb more information, so mutual understanding develops. Seeing a patient twice doubles the time spent with them and three consultations triples it, providing 30 to 45 minutes with a patient- a useful unit of time. It becomes progressively easier for the doctor to link new understandings of the patient to previous knowledge. This process is fundamental in general practice, as the GP acquires 'accumulated knowledge' about the patient (Hjortdahl, 1992). Doctors use such knowledge both for diagnosis and to tailor advice. Accumulated knowledge is valuable; GPs miss it when they do not have it and use it for their patients when they do (Hjortdahl and Borchgrevink, 1991). Both GPs and specialists are good at noticing changes in a patient they know well.

Repeated consultations change both doctors and patients. Doctors become more sensitive to patients, according to patients (Reis *et al.*, 2008), and feel more responsible for them. With continuity, patients increasingly trust their GP (Mainous *et al.*, 2001). Ridd *et al.*, 2011 quantified the number of consultations patients have with a GP in order to feel a deep connection with their GP. Every consultation up to 15 consultations increased the chance of a patient feeling they had a "deep professional relationship" with their doctor. At 8 consultations there was a 50% chance that patients felt this way.(Ridd *et al* 2011)

Continuity is an example of how for GPs aspects of human behaviour are as important as pathology. Hospital medicine largely seeks and treats pathology: GPs have a wider, behavioural perspective. Continuity of care is the factor which gives general practice a special humanising advantage unequalled by any other branch of medicine. Research reveals that the patient's context and the social determinants are influential on the development of illnesses and consulting patterns. General practice becomes progressively more interesting and relationships with patients progressively deeper, as patients become understood as people. Continuity is the keystone for care in general practice.

Benefits of continuity of care

There are hundreds of studies on continuity published in the international scientific literature. Most are observational studies, although recent studies include analyses of large national datasets with sophisticated statistical methods to reduce impacts of confounding. Whilst proof of causality by controlled trials is limited as few trials in medicine exist, there are RCTs in midwifery (Sandall *et al.*, 2015) with outcomes matching the observational studies in medicine, including lower death rates. Bradford Hill, an important statistician, stated in 1965 that results reproduced in different countries, cultures, and methods are more likely to be true findings. Positive continuity research exists from four continents.

The benefits known to be associated with higher levels of continuity of care are summarised in **Table 1**. These include some of the most important outcomes in medicine.

Table 1. Twelve benefits shown to be associated with higher levels of continuity of care-

Benefit	Description	References
1. Better patient satisfaction	Several studies and a systematic review.	(Adler et al., 2010)
2. Developing trust between patients and their GPs	Continuity of care GP care is associated with patients developing trust in a doctor they get to know. This reduces anxiety.	(Mainous et al., 2001; von Bültzingslöwen et al., 2006)
3. Adherence to medical advice and prescribed medication	Patients follow medical advice significantly more when they have continuity with their GP, ensuring more effective treatment and less waste.	(Dossa et al., 2017; Youens et al., 2021)
4. Uptake of personal preventive medicine	Continuity of GP care is associated with significantly better uptake of personal preventive medicine including immunisations and cancer screening.	(Christakis et al., 2000; O'Malley et al., 1997)
5. Higher quality and safer GP care	A Health Service Investigation Body (2023) Report concluded that lost GP continuity was unsafe for patients. Patients with dementia who had GP continuity had better prescribing and reductions of delirium and incontinence.	(Delgado et al., 2022)
6. Patients forgiving GPs after moderate mistakes	All human beings make mistakes. Lings et al (2003) found that patients who have received good continuity of care previously will forgive GPs who make moderate mistakes, with implications for time spent on complaints and litigation.	(Lings et al., 2003)
7. Reduced collusion of anonymity	Clarity of responsibility and continuity reduces the risk of patients becoming lost between clinicians.	(Freeman and Hughes, 2010)

8. Reduction in workload in practices	Patients consulting their regular GP reconsult after a significantly longer interval than if they consult another GP. It was estimated that for patients with ≥ 4 consultations in 2 years, GP continuity could save 5.2% of GP appointments.	(Kajaria-Montag et al., 2023)
9. Lower rate of attendances at emergency departments	Patients receiving GP continuity of care are significantly less likely to attend accident and emergency departments.	(Kohnke and Zielinski, 2017; Ride et al., 2019)
10. Fewer admissions to hospital	Many studies have shown that patients with good continuity of GP care are significantly less likely to be admitted to hospital, particularly for older patients with ambulatory care sensitive conditions.	(Barker et al., 2017; Menec et al., 2006)
11. Lower costs in whole health systems	Good continuity of GP care was associated with lower costs across the whole health system.	(Bazemore et al., 2023)
12. Lower death rate in patients	Two systematic reviews show that better continuity of GP care is associated with a lower death rate in patients. A dose-response relationship, adding scientific weight, has been shown between continuity and mortality.	(Baker et al., 2020; Sandvik et al., 2022)

Many of the benefits of continuity are advantageous for both patients and doctors as they are likely to have a better working relationship with more personalised patient care. Patients then trust that medical advice is right for them and so follow it more. This, together with the accumulated knowledge of the patient and the sense of responsibility the doctor develops, improves care and reduces more serious outcomes such as hospitalisations and death. There is also a reduction in overall healthcare costs. These mechanisms are summarised in **Figure 1** with a more detailed explanation available in the original article (Sidaway-Lee *et al.*, 2021). Trust in doctors, which is significantly associated with continuity (Mainous *et al.*, 2001) reduces a patient's perception of pain through the pain centres of the brain, visible by magnetic resonance studies (Anderson *et al.*, 2023).

Even in the shorter term, continuity can be useful to GPs as it may allow them to see the trajectory of illnesses and also to follow up on whether the advice or treatment that they have given has been effective. This is good for GP learning. This is particularly important when a patient is deteriorating and continuity allows the GP to see that they are worse which can be critical and life-saving.

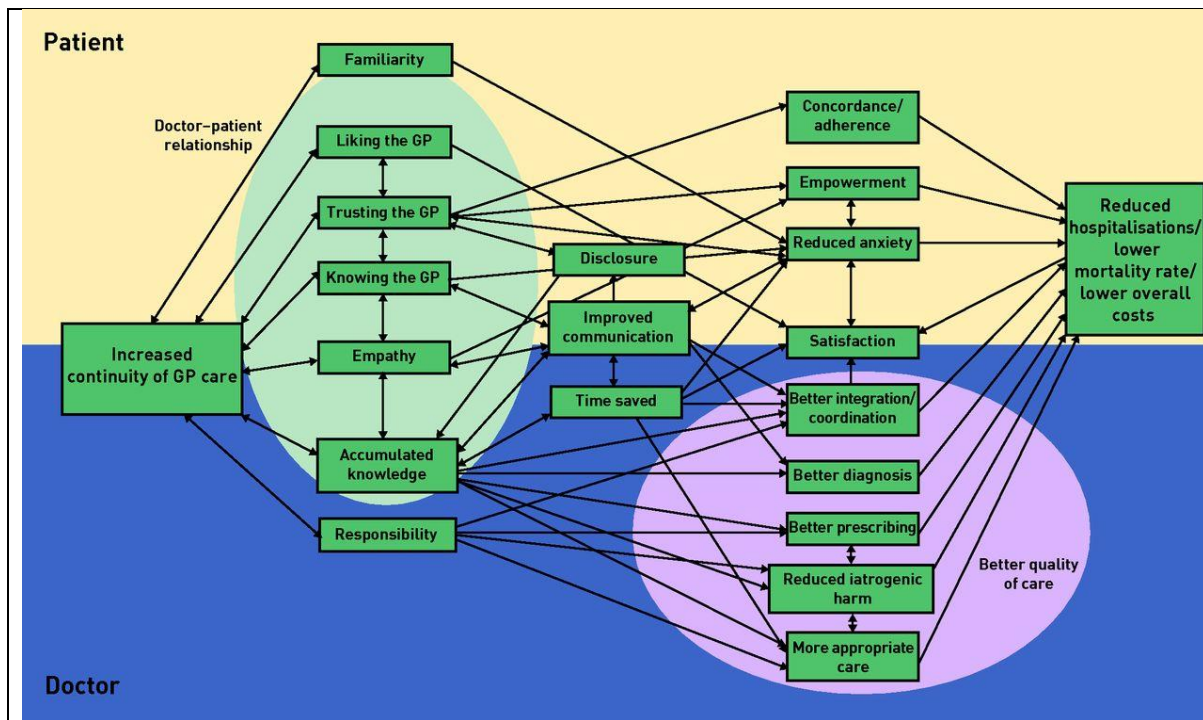


Figure 1. A flow diagram showing the potential positive mechanisms and beneficial intermediate outcomes linking increased continuity of care to overarching positive outcomes such as reduced mortality rates. Reproduced from (Sidaway-Lee et al., 2021).

An important benefit for GPs, recently quantified, is that when patients see their regular GP, the interval to the next consultation is, on average, 18% longer. It was estimated that if continuity of care were optimised, practices could save 5% of consultations, among more frequent attenders (Kajaria-Montag, Freeman and Scholtes, 2023).

Case scenario continued- with continuity

First consultation

Angela books a routine appointment to speak to you. She has been concerned about a few new symptoms she has noticed in the past few months. She's noticed a fluttering in her chest and is increasingly getting urinary tract infections alongside a change in her regular period cycle. She's more tired than usual but isn't sleeping well. She opens up to you about her worries about work, which can be stressful, with increased pressures at the hospital that can make her feel anxious. You discuss her home life and ask after her sons, who are doing well. She is getting along well with her husband, though he is travelling a lot for work, and she is carrying an increased burden at home during the week. A physical examination is normal.

You reflect back her ideas and concerns and discuss together that her symptoms could be due to perimenopause and her busy lifestyle, though you would like to rule out other physical causes. She's heard of hormone replacement therapy (HRT) and would like some more information about this which you agree to send, along with information about cognitive behavioural and group therapy for menopausal symptoms. You're aware that her mum has had a hip fracture and consider her risk of osteoporosis, and discuss having some baseline blood tests, urinalysis along with a FRAX score. Angela agrees to think about what you've discussed and read the information, and you agree to meet again in a month's time to rediscuss her symptoms and a plan going forward.

Case scenario continued- without continuity

First consultation Mrs Smith contacts the practice due to occasional fluttering sensations in her chest. You, as duty doctor, ring her. No chest pain, shortness of breath or exertional symptoms. You bring her in and do an electrocardiogram (ECG) and blood tests, all normal. You refer her for Holter monitoring at the hospital.

Second consultation

Mrs Smith contacts the practice. She has a burning sensation when she pees. No other symptoms. She speaks to the Duty Pharmacist, who arranges urine dip. Trace blood, trace leukocytes. He prescribes three days of antibiotics and advises a repeat urine dip. Repeat urine is dipped, trace blood, sent for microbiology, normal. Another GP picks up the result and decides in view of two abnormal urines and negative microbiology results, does a 2-week-wait referral to urology. Mrs Smith is investigated, and all is normal.

Third consultation

Mrs Smith contacts the practice. She is having difficulty sleeping and feels anxious at work. You are duty doctor and triage her to see the Mental Health Practitioner (MHP). The MHP gives sleep hygiene advice and tasks you about considering SSRI. You pick up the task and message Mrs Smith, to offer an SSRI and she accepts.

Adverse effects

All medical interventions have some adverse effects. For continuity these include patients potentially waiting too long to see their preferred GP or becoming dependent on their GP. GPs may collude with patients to avoid important questions (Kessler *et al.*, 1999). GPs may stereotype a well-known patient, miss the significance of new symptoms and delay important diagnoses e.g. Ridd *et al.*, (2015) reported a 7-day diagnostic delay for some cancers. However, the vast majority of published research and all five systematic reviews have positive findings for continuity.

Continuity in the UK and elsewhere

Paradoxically, whilst the evidence on the benefits of continuity has strengthened, levels of GP continuity have been falling in England (General Practice Patient Survey). Low levels of continuity, however, are not observed in a number of comparable countries. Menec *et al.*, 2006 in Canada reported that 75% GP continuity for older people was common and in Belgium it was reported that 68% of the included population see their usual GP at three out of four attendances. In 2001, Norway switched to a country-wide system of registration with one GP (personal lists) in a policy specifically designed to improve continuity. Reports from Norway show that 78% of appointments for patients with two or more appointments per year are with the named GP (Sandvik *et al.*, 2022) While in 2021 England had 52% using a similar measure but allowing continuity to be with any GP<REF Parry *et al* 2023>. Continuity is possible in modern health systems, despite the low levels in England.

In the UK, a long-term policy focus on rapid access to any GP has been to the detriment of continuity provision. The named GP policy of the Department of Health, from 2017, was designed to improve GP continuity but was widely interpreted as only an administrative exercise and therefore did not increase continuity at all. However, it remains a requirement in the NHS GMS contract that all patients, including children, have a named, accountable GP who has overall responsibility for their care.

There are practices in England which are maintaining high levels of GP continuity or even increasing the levels they provide. Some of these are smaller practices with fewer GPs making it easier for patients to see the same doctor repeatedly. However, there are also examples of larger practices, including some of over 17,000 patients, which have internal systems to ensure GP continuity of care. Some practices included their continuity measurements in their evidence to the Select Committee on Health and Social Care in 2022.

How to provide continuity in modern general practices.

Increasingly, the question is not whether continuity should be provided but whether it can be and if so, how. In a small practice with only two or three GPs, GPs can get to know patients without any formal system for encouraging continuity. In the UK, practices are progressively becoming larger meaning that the chance of seeing the same GP decreases. In a large group practice, without a system, patients can end up seeing many different doctors, with no doctor getting to know them or feeling responsible for them.

The Health Foundation project, 2019-2021, with five sites across the country, aimed at finding ways to improve GP continuity of care. To provide continuity systematically, practices need to designate clearly which patients should be seeing which doctors. This could be the entire practice list or a group of patients. Patients could be assigned to one GP (a personal list) or a team including one or more GPs (microteam).

Personal lists are the system that has been most extensively shown through research to improve continuity. Each patient in a practice is assigned a personal GP, although not all appointments will be with that one GP. With part-time working, same-day appointments and GP annual leave, this is not possible or expected. The list defines with which GP the patient should be having continuity so that practice staff can support this. Personal lists implement the contractual requirement by clarifying who is the named responsible GP. GPs are then not so responsible for patients who are not theirs, as other list-holders will manage their own patients, potentially reducing burnout and enabling equitable sharing of responsibility across the practice. Practices around the country use this system to provide good levels of continuity to their patients.

The personal list system can be adapted so that there is also a “buddy” who regularly covers for another named GP and deals with letters and investigation results when the named GP is not in the practice. This arrangement can be reciprocal between two GPs and reduces the number of GPs a patient may face.

Some practices use a micro-team system in which each patient has a designated team rather than a single GP. The team usually includes one or more GPs, with sometimes other health care professionals. Creating a micro-team within a larger practice may provide some of the continuity advantages of smaller practices, but the evidence on these kinds of systems is still emerging (Coombs *et al.*, 2023).

Some practices, particularly those starting with little or no continuity, may choose to focus on providing continuity to particular groups of patients only. This focus might be on frequent attenders, older patients or those with particular, often chronic conditions. This can be more difficult administratively as practice staff, particularly reception staff, need to first check

whether the patient is in a targeted group before determining who the patient should see for continuity. Identifying which patients to target can also be complex. Frequent attenders this year may not be the same as last year's. It is also impossible to predict which patients will need continuity going forward. A young, previously healthy person could receive a serious diagnosis and at that point, it would have been useful to already have GP continuity. However, some practices have started with targeted groups and then progressed to a more comprehensive continuity system.

Changing to a continuity system

Practices in the Health Foundation project found there were some difficulties in transitioning to providing continuity. Under the personal list or microteam system, GPs do need to work with their own more difficult patients who often have multiple physical and psychological problems or continuing symptoms with no obvious pathological basis. Their behaviour may be challenging. The key to understanding many of these patients often lies in their previous experiences, especially in childhood- an example of the importance of social determinants of disease. These cannot be learned by a GP during only one or two consultations; it usually needs several consultations for the GP to achieve understanding and for the patient to recognise that. Continuity enables GPs to reach a way of working with such patients which can often greatly reduce their consultation rate. Without continuity, such patients are no one GP's responsibility and can rotate round the practice seeing multiple GPs, being repeatedly investigated, often referred, and getting nowhere.

Initially, building continuity with frequent attenders and patients who GPs find to be challenging may appear to be a disadvantage, particularly if some GPs are more committed than others. The GPs working hard on continuity may find they are dealing with all their own difficult patients as well as those of other GPs, so all GPs need to agree the system. Complex patients and those who attend frequently need to be spread fairly across lists to prevent GPs from being overburdened. Patients should be able to change GPs but not repeatedly.

Increasing continuity is helped by statements on practice notice boards and websites valuing continuity and describing personal lists, if used. Materials are available to help patients understand the benefits of continuity. Staff, especially those in patient-facing roles need training about these benefits for both patients and the practice. Sample scripts for common queries can help. Visiting another general practice which has good, measured continuity and can demonstrate its figures may be useful. Some RCGP Faculties organise such visits.

Continuity measurement

Practices usually find it useful to know the levels of continuity delivered by the practice and by individual GPs and whether these are improving or deteriorating. Measuring and comparing continuity rates for individual doctors can lead to overall improvements.

Several different measures have been used in continuity research but some are complex to calculate and understand for busy GPs and patients (Pereira Gray *et al.*, 2023). A measure becoming more widely used in practices is the St Leonard's Index of Continuity of Care (SLICC), which is easy to calculate and understand. Once a named GP is identified and recorded, this measure allows monthly measurement of continuity (Sidaway-Lee, Pereira Gray and Evans, 2019). This measure is simply the percentage of appointments that are with the named, personal GP. It is the most inclusive measure of continuity as it uses every

consultation, by every patient, with every GP in the practice. Practices from around the country have results showing both good (>50% SLICC) and excellent GP continuity (>75% SLICC).

What can I do in practice?

GP trainees have time to reflect on GP continuity and both its research base and how it is being measured within general practices. Those placed in training practices geared to providing continuity should take their opportunity to discuss the importance of continuity. Trainees in training practices with low GP continuity are advised to visit general practices which provide over 50% GP continuity (on the SLICC, or equivalent) and discuss GP continuity there.

There are several tools for evaluating and improving continuity of care in practice. Measuring continuity is a key step to understanding how well patients experience continuity in practice. Quality improvement audits and projects are an essential part of practice during training and beyond, and following this toolkit to improve continuity measurement and care is an option to facilitate quality improvement in practice.

Continuity resources

- St Leonard's Research Practice has a website with various resources: www.continuitycounts.com
- The RCGP has developed a Continuity of Care toolkit which describes a six-step approach to improving continuity, and includes resources and tools to support these steps: <https://elearning.rcgp.org.uk/mod/book/view.php?id=12895&chapterid=536>

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