Making the Link: Continuity of Care

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Quality of care is providing the right service (process), at the right time (accessibility), for the right effect (outcome), at the right price (cost-effectiveness) for patient satisfaction (acceptability). Continuity of care is essential for quality of care but can be a challenge for rural patients.

About one quarter of Canadians live in rural areas where more than one-third of the population can be over age 65, and many lack primary care providers.[1] Constrained resources have led to closure of rural hospitals and regionalization of services. Patients may see itinerant physicians for priamy care, be transferred to regional hospitals for inpatient care, and travel long distances for specialist consultation and testing.[2]

What is continuity of care?

Until recently, continuity of care meant being cared for by one family doctor over time. Given that healthcare is increasingly regionalized, specialized, and multidisciplinary, continuity of care now means coherent care with seamless transitions over time between providers and settings.

There are three types of continuity of care:

- relational continuity (ongoing patient-provider relationships),
- management continuity (consistent and coherent approach to management that is responsive to changing needs), and
- informational continuity (availability of information, including past events and personal circumstances to assist in current management).[3]

Bill's Troubles

Bill, 68, farmed all his life. In recent years, he'd been having difficulty managing his books. His wife found him withdrawn and irritable. Bill had a history of binge drinking, which he blamed on stress.

Because Bill's local family physician had retired, his wife made an appointment with the local clinic (which had a month-long waiting list). When eventually seen, the physician ordered blood work and prescribed an antidepressant, mentioning that if there was no improvement, he would refer Bill to a specialist three hours away.

One month later, Bill's wife reported he had forgotten where he'd parked his tractor on several occasions. Bill was booked into the clinic, but failed to keep the appointment.

Two months later, Bill was admitted to the regional hospital with cough and confusion and treated for pneumonia. His wife was too frail to travel to visit, but called the attending physician, concerned about Bill's memory. Blood work was ordered. An outpatient computed tomography scan was recommended in a discharge summary forwarded to the previous (now retired) family doctor.

For more on Bill, go to page 106.

Table 1

Breaks in continuity of care

Type	Problem	Case
Patient	Non-emergent unresolved problem	Followup needed for investigation/management
	Rural residence	Travel for healthcare
	Non-adherence	Failure to keep appointment
	Cognitive problems	Memory complaints; alcoholism
	Lack of able caregiver	Wife unable to travel to hospital
Provider	Lack of providers	Itinerant physicians
	Poor documentation	Illegible/incomplete medical records
System	Limited access	Waiting lists
	Fragmentation	Regionalization of health services
	Communication failure	Failure to transfer lab results/recommendations; repeated blood testing

Followup on Bill

Bill's wife and family brought him to the local clinic against his will. He had been wandering at night and become abusive. The physician in the clinic that day had difficulty deciphering the previous physician's clinic notes and had no record of the discharge summary from the recent admission. The physician ordered blood work and faxed a referral letter to a neurologist.

For Bill's outcome, go to page 107.

What happens when there is a lack of continuity of care?

A variety of breaks in continuity of care can occur (Table 1). In particular, lack of continuity of care can cause medical errors. Hospital discharge is particularly prone to continuity of care errors.

In an Australian study of 203 patients discharged from hospital, 52% were admitted without notifying the family physician, 33% lacked understanding of their medications, and 9% had insufficient medication to last until the first followup visit.[4]

In an American study of 89 randomly selected patients, 50% had a least one "continuity of care error" in their clinic and hospital records. Medication errors occurred in 42% of cases. Diagnostic workup errors occurred in 12% of cases and 8% of cases had test followup errors. An error was detected in 41% of cases where patients had tests pending on discharge.[5] Table 1 outlines more breaks in continuity of care.

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Table 2

Characteristics of continuity of care—The C's:

Characteristic	Definition	Potential Solutions
Contact	Regular access to consistent providers	Recruitment & retention of local providers
Collaboration	Patient & caregiver participation in planning	Patient & caregiver education on followup and management
Communication	Accurate collection and timely transfer of patient data, care plan	Legible, concise records; local physician notification at admission/discharge; automated discharge summaries; electronic medical records
Co-ordination	Delineation of roles & responsibilities among providers	Discharge co-ordinators; disease management programs; integrated care pathways
Convenience	Minimizing travel; avoiding repeats of basic patient data	Telehealth™; electronic health records
Consistency	Patient data & care plan agreed upon shared various providers	Internet access to guidelines; electronic health records; case conferences
Contingency	Readiness to respond to questions and acute	Providers who can access medical records; 24-hour toll-free advice line problems

How can we improve continuity of care?

For relational continuity, convenient facilities staffed by regular healthcare providers would be ideal. Telehealth™ may improve access to specialist consultation and allow regular followup. For management continuity, education enlists the patients and/or caregiver as a collaborator in carrying out the plan.[6] Integrated pathways are time-task care plans that co-ordinate the required tasks and track the expected outcomes, and disease management programs have dedicated personnel to co-ordinate care for specific conditions.[7-8]

For informational continuity, complete, concise, and legible medical records are essential. So, too, is timely transmission of patient data and care plan between providers and settings.[9]

Bill's Care

One month later, Bill was seen by a neurologist. Blood work was ordered. A computed tomography scan of the head was done showing a small chronic subdural hematoma. A few months later, Bill was placed in a supervised care home since his wife was no longer able to look after him.

Guidelines and policies may improve informational continuity (e.*g.*, routine telephone calls to family physicians at admission and discharge, etc.). Some physicians have electronic records systems and would like discharge summaries sent electronically. Widely accessible electronic health records hold promise. Continuity of care may be challenging, but it is essential for quality of care (Table 2). CME

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