CCR--Not an EHR

by Carol Ann Quinsey, RHIA, CHPS

In 2003 the American Society for Testing and Materials (ASTM) kicked off the development of the Continuity of Care Record (CCR) standard, which was finalized in that year and passed by ASTM in April 2004. Sponsorship of the CCR brought together ASTM International, the Massachusetts Medical Society, the Healthcare Information and Management Systems Society, the American Academy of Family Physicians, the American Academy of Pediatrics, the American Medical Association, the Patient Safety Institute, the American Health Care Association, and the National Association for the Support of Long Term Care.

In the July/August 2004 issue, this column discussed the need to harmonize the CCR and the EHR so that they could become complementary standards. As you will see here, each standard seeks to serve a different need.

CCR's Purpose

The CCR is a subset or snapshot of a patient's health information. Its purpose is to improve the continuity of patient care, reduce medical errors, and ensure a minimum set of data is available when patients are referred or transferred among care providers. The CCR is based on Massachusetts' Department of Public Health paper-based Patient Care Referral Form.[1] Basic useful information identified for the continuity of patient care includes patient and provider information, insurance information, the patient's health information, recent care provided, recommendations for future care, and the reason for transfer or referral.[2]

The CCR delivers a defined set of core data in paper, XML, or Health Level Seven (HL7) format. The CCR can be sent as a PDF file or viewed directly in an XML-enabled browser.[3,4] Concerns that the initial CCR did not address medical and surgical specialties were acknowledged and will be addressed in extensions of the basic data set over time.

The CCR Core Data Set

The following major data categories are included in the CCR. Some of the elements are required and others are optional.

1. CCR identifying information
    a. Referring ("from") practitioner
    b. Referral ("to") practitioner
    c. Date
    d. Purpose or reason for CCR
2. Patient identifying information—required information to uniquely identify the subject patient; not a centralized system or national patient identifier but a federated or distributed system identifier
3. Patient insurance or financial information—basic information from which eligibility for insurance benefits may be determined for the patient
4. Advance directives—indicators that resuscitation efforts are to be either unrestricted or limited in some way; includes what is commonly known as the Do Not Resuscitate status of the patient as addressed in such documents as living wills, healthcare proxies, and powers of attorney
5. Patient health status
    a. Conditions, diagnoses, problems
    b. Family history
    c. Adverse reactions, allergies, clinical warnings, and alerts

d. Social history and health risk factors
e. Medications
f. Immunizations
g. Vital signs and physiologic measurements
h. Laboratory results and observations
i. Procedures and imaging (This section may be expanded in extensions for clinical specialty-specific information regarding the patient.)

6. Care documentation—detail of the patient-practitioner encounter history, such as:

a. Dates and purposes of recent pertinent visits
b. Names of practitioners seen (This section may be significantly expanded in future extensions.)

7. Care plan recommendation—includes planned or scheduled tests, procedures, or regimens of care for the patient
8. Practitioners—information about those healthcare practitioners who are participants in the patient's care; links as appropriate to 5a (conditions, diagnoses, problems) and 6 (care documentation) encounters[5]

Relationship to the EHR

It is important to note that the CCR is not an electronic health record (EHR). It is simply a snapshot of a patient's health information that is transferred from one provider to another. There are many differences between the CCR, a medical record, an EHR, and an EHR system.

The CCR is not a legal record. When a patient's health information is stored in a provider's paper or electronic health record, it serves as that provider's legal record. When health information is extracted to send to another provider, it is not a legal record and does not become so unless the receiving provider incorporates it into his legal record.

Although many current paper or electronic health records are not completely longitudinal (since they do not contain health information for all visits from all providers), they usually do contain all the health information for visits with a single provider. The CCR is solely a subset of health information that will help the receiving clinician provide care.

There is no system functionality in the CCR. For example, the CCR is not software that triggers alerts during order communication. The host EHR system performs that task. However, the CCR may identify alert information to be extracted from the EHR and transferred to the receiving clinician.

The CCR does not define standards for essential functionality for EHR systems. For example, there is no evidence-based medicine, clinical trial, or public health surveillance support for practitioners, as seen in the HL7 EHR draft standard for trial use (DSTU).

Development of the CCR and EHR standards took entirely different approaches. The HL7 EHR DSTU was approached from the top down, as a set of conceptual functions. Data content for the EHR DSTU has not been defined. The CCR took a bottom up approach to development, focusing on the exchange of specific data content.[6]

In 2004 the AHIMA Work Group on Core Data Sets as Standards for the EHR conducted a preliminary mapping of the CCR data content to the HL7 EHR DSTU. The result showed that all CCR data content could be mapped to one or more areas of the EHR DSTU functions, demonstrating that the CCR could be very useful as initial data content for an EHR system.[7, 8]

Planning to Implement a CCR

Healthcare providers can begin today to determine if they want to implement the CCR. The data elements of the CCR are discrete and clearly defined. ANSI messaging standards exist for XML transportation of the data between providers. It could be implemented as a forerunner to the EHR or derived from the EHR if the organization has the required data elements available.

Conduct a survey of healthcare providers in the community to determine whether there is interest among practitioners in implementing the CCR. Since the CCR can be printed as a paper document or shared electronically, there is flexibility in the approach that different communities or groups of providers can take.

Analyze facility information systems for CCR data elements. The data elements are common, and it seems unlikely that there will be gaps identified. However, if gaps in content are found, they should be remedied.

Policies and procedures should be reviewed to address privacy and security, patient and provider access, and rights to the CCR. A determination should be made as to whether the CCR will be available to patients since it could be part of their personal health record.

Implementation of a CCR could represent a positive step in improving information for practitioners at the point of care. In turn, it would improve patient safety and potentially reduce the cost of care.

Notes

1. Dodge, John. "Standard for Continuity of Care Record Gathers Steam." *Health-IT World*. Available online at www.imakenews.com/health-itworld/e_article000173025.cfm.
2. Ibid.
3. Ibid.
4. ASTM E31.28 Workgroup on CCR. "Continuity of Care Record." Available online at www.astm.org/COMMIT/E31_CCRJuly04.ppt.
5. Ibid.
6. Mon, Donald T. "The EHR and the CCR: Compatible or Competitive?" *Journal of AHIMA* 75, no. 7 (2004): 44–45.
7. Ibid.
8. AHIMA Workgroup on Core Data Sets as Standards for the EHR. "E-HIM Strategic Initiative: Core Data Sets. Appendix A: Core Data Sets as Standards for the EHR, Part 2: Healthcare Standards Organizations." *Journal of AHIMA* 75, no. 8 (2004): Web extra.

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Mon, Donald T. "Standards Harmony: Establishing Common Standards Is Key to the Success of the NHII." *Journal of AHIMA* 75, no. 6 (2004): 50–51.

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