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Introduction

Complex and fragmented healthcare systems hamper provision of effective care where it is needed most.¹ In most instances, continuity of care is rarely considered during referral, transfer, or discharge of patients from one caregiver to another.^{2,3} The dearth of pertinent current and historical health information at the point of care may lead to medical errors, adverse events, and poor outcomes.⁴

The Problem

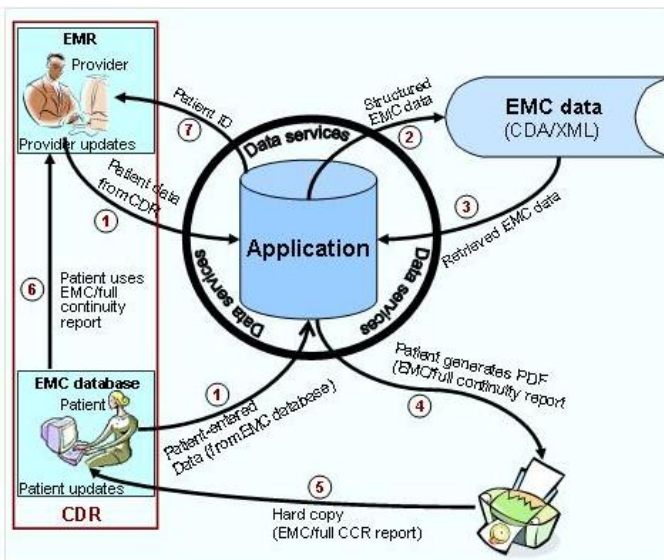
Discontinuity of care due to poor communication and exchange of health information among providers is a major efficiency and patient safety concern. Patients often see multiple providers, and, during each visit, the patient's core health information is required by providers for appropriate decision making. Patients with access to their EMR may wish to share their healthcare information, but not all providers may have EMR systems, and browser access may not be available in all circumstances. Providers may therefore provide care without knowing a patient's full health status or what procedures had been performed previously, resulting in wasteful duplication of effort and in clinical decisions that do not take into account the critical data related to the patient's health.

In addition, errors of commission and omission may exist within the patient's EMR. The patient is potentially an excellent source of quality control for the record, but direct access to information is rarely available.

Objectives

- Develop an automated system compliant with continuity of care record standard (E2369-5) to enable patients to modify/add information in a personal database, and create and print a pocket EMC and a full continuity of care report.
- Establish through simulations the impact that the use of the EMC and a full continuity of care report have on continuity of care.
- Evaluate the impact of the EMC and full continuity of care reports on the quality of data entered by providers and by patients.
- Evaluate the impact of the EMC and full continuity of care reports on patient and provider satisfaction.

EMC Data Storage and Manipulation Architecture



- 1 Extract datasets from EMR & EMC databases.
- 2 Transform extracted datasets into CCR standard's XML format.
- 3 Extract CCR dataset.
- 4 Generate printable pdf emergency medical card and full continuity of care documents.
- 5 Patient prints out pdf emergency medical card and full continuity of care report.
- 6 Patient keeps/takes printed EMC (for emergencies) and full continuity of care report (for the update of patient's PHR in the EMR) to the next provider he/she visits.
- 7 Provider uses patient-submitted data on full continuity of care report to extract the patient's provider-maintained EMR, verifies & updates.

The CCR standard⁵

Document Identifying Information	Optional Extension
• Info re "From/To" Providers/Clinicians	
• Documentation Date	
• Purpose	
Patient Identifying Information	Optional Extension
Patient Insurance/Financial Information	Optional Extension
Patient's Health Status	
• Condition/Diagnosis/Problems	
• Family History	
• Adverse Reactions/Allergies/Etc.	
• Social History & Health Risk Factors	
• Medications	
• Immunizations	
• Vital Signs/Physiological Measurements	
• Laboratory Results/Observations	
• Procedures/Imaging	
Advance Directives	
Care Documentation	
Care Plan	
Providers	

Mandated Core Elements of the CCR

Main Data Management Menu

Emergency Medical Card (EMC) for Genifer Harwood

The information you change in this document is for personal use only. Intermountain Healthcare records will not reflect these changes until verified.

PATIENT INFO	MEDICAL RECORDS	MEDICAL HISTORY	PERSONAL NOTES
<ul style="list-style-type: none"> View all Patient Demographics Patient Insurance and Financial 	<ul style="list-style-type: none"> Additional Information Emergency Contacts 	<p>Intermountain Records</p> <p>Address : 123 Main # 4 City/state : Salt Lake City, UT Zip : 84011 Country : USA Home Phone : (801) 442-2954 Work Phone : (801) 250-0877 Date of Birth : 04/18/1966 Sex : Female Marital Status : Single</p>	<p>Patient-modified Records</p> <p>Address : 1330 McClelland St City/state : Zip : 84066 Country : Home Phone : (801) 968-1854 Work Phone : Date of Birth : Sex : Marital Status : Married Date of last modification : 02/26/2007</p>

References

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Acknowledgements

Intermountain PHC & e-Business team members

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