EMR Direct
SIMPLIFYING INTEROPERABILITY

Stephan's User Story

CONNECTED CARE THROUGH HL7 FHIR®

- *Health information exchange between disparate healthcare organizations*
- *Consumer mediated exchange*

PRIMARY & EMERGENCY ROOM CARE

Stephan is seen by his Primary Care Provider, then taken to the Emergency Department. On transfer to Tertiary Care at a different facility, a CCDA referral note is generated for Stephan.

With **EMR Direct Interoperability Engine** integration API, health data can be enabled as a FHIR resource or sent as a Direct Message. Using this core functionality plus some automation, Stephan's referral note is sent as a Direct message to a special mailbox where upon receipt the CCDA payload is automatically converted to a FHIR resource accessible by Tertiary Care staff. Making Stephan's visit details immediately available to these providers improves Stephan's quality of care, since that organization doesn't have access to the EMR where the PCP or ER visits occurred and isn't itself Direct-enabled.

TERTIARY CARE

The specialist at the Tertiary Care facility, who now has access to Stephan's ER visit data via FHIR, reviews the notes on Stephan. He examines Stephan, and makes prompt, well-informed care decisions using the patient's most recent health data.

BACK AT HOME

After returning home, Stephan is able to sign in and view his FHIR-enabled visit notes from the ER using patient credentials the hospital gave him. ONC 2015 Edition Certification requirements have prioritized this type of patient engagement via FHIR or other public APIs.

One way **EMR Direct HealthToGo** makes this easy for consumers is through our participation in the Move Health Data Forward Challenge. As part of this work, **HealthToGo** enables optional use of the HEART profiles for UMA, OpenID and OAuth.[1] This allows providers, patient representatives, and caregivers to be granted access by Stephan to his health data and kept informed of his health status.

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[1] More information on HEART may be found at: http://openid.net/wg/heart/

Stephan uses **HealthToGo** and the patient credentials from the ER to access his CCDA—which is possible using any client app that follows the ER's public API documentation. This way, he can analyze data from the visit alongside his other medical records in apps that allow him to aggregate data from multiple facilities, like **HealthToGo** does. With its FHIR client and Direct transmit capabilities, **HealthToGo** also meets many of the requirements of a 2014 or 2015 Edition Patient Portal solution.

Stephan's Health Information Exchange Summary

1. Stephan's ER referral note was transferred in real time from the ER using Direct messaging. This Transition of Care use case is supported by Health IT certified by ONC under 2014 and 2015 Edition criteria, and can be easily implemented using **EMR Direct's phiMail® Server**, part of **Interoperability Engine**.

   Upon message receipt, the CCDA payload was automatically enabled as a FHIR resource. An Application Access API solution meeting 2015 Edition criteria can be implemented using **EMR Direct Interoperability Engine** to enable a FHIR resource capable of responding to queries from authorized users or clients. In this example, the FHIR standard was automatically enabled. Alternatively, **EMR Direct's phiQuery API** can be used by Health IT developers to connect directly to a healthcare organization's data source.

2. Once enabled for FHIR query, Stephan's CCDA can be accessed by any third party client application following the certified public API documentation and authorized to access that data.

   In the HIMSS17 connected demonstration enabled by EMR Direct, the Tertiary Care specialist can access any data sent to their Direct-to-FHIR address.

3. Stephan is also able to access his data at the FHIR resource with user-level credentials issued to him by the ER. He can grant access to this data to authorized representatives of his choice, if the client application supports consumer mediated exchange as it is currently being profiled in the HEART workgroup.

   EMR Direct was a Phase 1 Winner of ONC's Move Health Data Forward Challenge, accelerating consumer mediated exchange through the use of the HEART profiles.

About EMR Direct

EMR Direct is a privately-held company headquartered in San Diego, California, that provides Direct messaging HISP and open API services and the supporting public key infrastructure (PKI) required for secure health information exchange. With the goal of simplifying interoperability and enabling custom workflows, EMR Direct's software is easy to deploy and does not require expensive, one-off, peer-to-peer interfaces. EMR Direct is committed to protecting patient privacy, improving the quality and coordination of care, increasing productivity, reducing costs, and facilitating consumer mediated exchange.