

INDIANA NETWORK FOR PATIENT CARE

ELECTRONIC PATIENT PHARMACY ORDER FORMAT

RDE MESSAGE DELIVERY
TO THE
INDIANA NETWORK FOR PATIENT CARE



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TECHNICAL SPECIFICATIONS

ADAPTED FOR
ST. FRANCIS PHARMACY SYSTEM

INTRODUCTION

The Indiana Network for Patient Care (INPC) is a community-wide electronic medical record that was developed in the 1990s, and began to operate in 1995. The Regenstrief Institute, Inc., has developed and implemented all of the software and systems that underpin the INPC, and operates the INPC on behalf of its participants. The participants of the INPC include all five of the major hospital and health care systems in Indianapolis, as well as hospitals in surrounding counties. The participants of the INPC also include several large physician practices, two independent commercial laboratories, public health agencies, payors, and the Indiana State Medicaid program. The number of participants grows as new institutions are added.

The INPC is a centrally-managed, federated clinical data repository. Thus each institution's data is physically located on separate digital storage media. Each patient's data is protected in accordance with HIPAA guidelines for privacy and security. Such a uniform, standardized approach allows a physician working in an emergency department to view a patient's previous care information from all participating institutions as a single virtual medical record.

The primary way that data flows into the INPC is as HL7 messages. HL7 is a standards development organization (<http://www.hl7.org>). The HL7 messaging standard permits structured and encoded health care information to be exchanged between computer applications. This standard specifies message formats to represent various categories of health information, such as: Order Entry, Financial Management, and Observation Reporting.

This document communicates the pharmacy or treatment application's encoding of the pharmacy/treatment order. It may be sent as an unsolicited message to report on either a single order or multiple pharmacy/treatment orders for a patient.

As a site-specific variant, the original order segments (RXR, associated RXC, and any NTE) may be sent optionally.

REQUIREMENT SUMMARY

Briefly, we request that "Sender" send an electronic notification, as an RDE message, in accordance with the HL7 messaging standard version 2.3 or higher, to the INPC. We request that this RDE message should be sent in real time, or within a reasonably short time interval, of the pharmacy order completion.

REAL TIME HL7 USING VPN

In order to ensure the privacy and confidentiality of data transferred in real time over the Internet, data should be sent through an IPsec VPN tunnel. This requires use of a VPN concentrator, a firewall with VPN capability, or any other device capable of creating a LAN-to-LAN

VPN tunnel. This also requires a continuous Internet connection with sufficient bandwidth to support your message volume.

MESSAGE FORMAT

The preferred format for electronic messaging is the HL7 “Pharmacy/Treatment Encoded Order” Message (RDE message, O01 event).

The “Pharmacy/Treatment Encoded Order” message will contain the six (6) mandatory segments, namely MSH, PID, PV1, ORC, RXE, and RXR.

“The “Pharmacy/Treatment Encoded Order”” message may also contain additional segments when supplemental data is available. Examples include the EVN segment (“Event”), RXC segment (“Route Component”), AL1 segment (“Allergy Information”), IN1, IN2, and IN3 (“Insurance”). If such additional segments are available, please do not remove them because they could be useful for future INPC applications.

Regenstrief Institute receives HL7 messages from many sources. From this, it must adhere to the strictest interpretation of the standard given by the HL7 organization.

HL7 ONLINE REFERENCES

URL: <http://www.dmi.columbia.edu/resources/hl7doc>

URL: <http://www.hl7reference.com/>

URL: <http://www.hl7.org.za/patient/httoc.htm>

RXE MESSAGE FIELDS

The following RDE message fields are required to send a successful “Pharmacy/Treatment Encoded Order” message to the INPC.

<i>Field</i>	<i>Opt.</i>	<i>Description</i>	<i>Value</i>
MSH-1	R	Field Separator	
MSH-2	R	Encoding Characters	^~\&
MSH-3.1	R	Sending Application	APP-1 (short string, <16 characters, without spaces, is preferred, though not required)
MSH-4	R	Sending Facility	FAC-1 name of clinic organization, which might encompass multiple clinic sites (short string, <16 characters, without spaces, is preferred, though not required)
MSH-5	R	Receiving Application	INPC
MSH-6	R	Receiving Facility	REGEN
MSH-7	R	Date/Time of Message	YYYYMMDDHHMMSS
MSH-9	R	Message Type	RDE^O01
MSH-10	R	Message Control ID	unique alpha-numeric code that identifies the message instance
PID-3	R	Patient ID (Internal ID)	
PID-5.1	R	Patient’s Last Name	
PID-5.2	R	Patient’s First Name	
PID-5.3	R	Patient’s Middle Initial	
PID-7	R	Patient’s Date of Birth	YYYYMMDD
PID-8	R	Patient’s Sex	M=Male, F=Female, O=Other, U=Unknown
PID-11.1	R	Street Address	
PID-11.2	O	Street Address, supplemental	
PID-11.3	R	City	
PID-11.4	R	State	
PID-11.5	R	Zip	
PID-19.1	O	Social Security Number	Though not required, this number should be sent if available,
PV1-2	R	Patient Class	O (OutPatient), I (InPatient), E (Emergency)
PV1-3.1	O	Unit	Unit or Point-Of-Care
PV1-3.2	O	Room	
PV1-3.3	O	Bed	
PV1-3.4	O	Assigned Patient Location	Name of Clinic Site
PV1-4	O	Admission Type	
PV1-14	O	Admission Source	
PV1-15	O	Ambulatory Status	
PV1-18	O	Patient Type	
PV1-19	O	Visit Number	Not required, but highly desired
PV1-20	O	Financial Class	
PV1-36	O	Discharge Disposition	
PV1-37	O	Diet Type	
PV1-39	O	Visit Number	
PV1-44	O	Admit Date/Time	YYYYMMDDHHMMSS

PV1-45	0	Discharge Date	YYYYMMDDHHMMSS
ORC-1	R	Order Control Code	NW, OK, CA, ...
ORC-2	R	Placer Order Number	Ex. PLACER1234567890, 20 char's
ORC-3	R	Filler Order Number	Ex. FILLER1234567890, 20 char's
ORC-4	O	Placer Group Number	Ex. GROUP1234567890, 20 char's
ORC-5	O	Order Status	
ORC-7	O	Quantity/Timing	Use OBR-27 Quantity/Timing in HL7 Manual for full and complete explanation of all component fields
ORC-10	O	Entered By	Code ^ Last Name^ First Name
ORC-11	O	Verified By	Code ^ Last Name^ First Name
ORC-12	O	Order Provider	Code ^ Last Name^ First Name
ORC-13	O	Enterer's Location	Point of care ^ Room ^ Bed ^ ...
ORC-14	O	Callback Phone Number	
ORC-16	O	Order Control Code Reason	
RXE-1	O	Quantity/Timing	Use OBR-27 Quantity/Timing in HL7 Manual for full and complete explanation of all component fields
RXE-2	R	Give Code	Components 1 and 3 must be filled in. Ex. 00172531310^^NDC
RXE-3	O	Give Amount – Minimum	
RXE-5.2	O	Give Units	ID ^ TEXT ^ Code System or ^TEXT
RXE-6.2	O	Give Dosage Form	ID ^ TEXT ^ Code System or ^TEXT
RXE-7.2	O	Provider Admin Instructions	This is a "Free Text" field. Nothing should be put here that another field should be used, such as Strength and Strength Units.
RXE-10	O	Dispense Amount	
RXE-11.2	O	Dispense Units	ID ^ TEXT ^ Code System or ^TEXT
RXE-21.2	O	Pharmacy Special Instructions	This is a "Free Text" field. Nothing should be put here that another field should be used, such as Strength and Strength Units.
RXE-23	O	Give Rate Amount	
RXE-24.2	O	Give Rate Units	ID ^ TEXT ^ Code System or ^TEXT
RXE-25	O	Give Strength	
RXE-26.2	O	Give Strength Unit	ID ^ TEXT ^ Code System or ^TEXT
RXE.27.2	O	Give Indication	Identifies conditions or problems. This is a "Free Text" field. ID ^ TEXT ^ Code System or ^TEXT
RXR-1	R	Route	ID ^ TEXT ^ Code System or ^TEXT
RXR-2	O	Administrative Site	ID ^ TEXT ^ Code System
RXR-3	O	Administrative Device	ID ^ TEXT ^ Code System
RXR-4	O	Administrative Method	ID ^ TEXT ^ Code System
RXC-1	O	RX Component Type	
RXC-2	O	Component Code	ID ^ TEXT ^ Code System
RXC-3	O	Component Amount	
RXC-4	O	Component Units	ID ^ TEXT ^ Code System

SAMPLE HL7 RXE MESSAGE

MSH|^~\&|PHARM-APP|CLINIC-FAC|INPC|REGEN|200701021302||RDE^O01|987654321|P|2.3

PID|0001|1212121|999999999||QCOMP^Rambo^|19010121|U|||123 HOME ST^^INDIANAPOLIS^IN^46201
|||||0002104398|000-00-0000

PV1|1|O|^DOWNTOWN_SITE||||||||||||||||||||||||||||||||||||||200701021300

ORC|NW|80031.1||NW||1^Q8S&^^200802191600^R^^TOTAL VOLUME = 60 ML~ INFUSE OVER 30
MINUTES^^|20080219142919|ABLY279|ABLY279|Z9999^DOE^JON^E||200802191600|NW||ABLY279|

RXE|1^Q8S&^^200802191600^R^^|00409798413^NAACL 0.9%|50|ML|IV SOLN|^TOTAL VOLUME = 60 ML
INFUSE OVER 30 MINUTES^||1|ML||ABLY279|80031.1|||150|

RXR|PB

RXC|A|60505074905^CEFAZOLIN|2|GM|2|GM|