

Outgoing Formulary Information to ADS from Willow Inpatient Interface Technical Specification Technical Specification

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Message Specifications

The interface is used to inform an autodispense system of changes to the Epic formulary. It is a real-time interface which is triggered when the medication or dispensable product master file is modified. The interface specifications were determined by reviewing specifications from existing pharmacy autodispense system vendors (Pyxis, ConnectRx Acudose, and OmniCell).

Note:

This document can be shared with third parties to assist with interface implementation.

The interface is a subset of the full standard as defined in the published normative HL7 documentation coinciding with the released software version. It may not support the entire HL7 specification, depending on functional needs.

MFN^M01 Master File Notification Message

This message is sent when a medication record is created, updated, activated, deactivated, or deleted.

Message Format for Event Type M01

MFN	Message File Notification	Chapter
MSH	Message Header	2
MFI	Master File Identification	8
MFE	Master File Entry	8
ZFM or ZFX	Formulary Maintenance	

ACK	General Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2

Sample Messages

MFN^M01 Master File Notification Messages

Format Example

```
MSH|^~\&|ZZZ|HOSPITAL|YYY|HOSPITAL|20060104111701|5589|MFN^M01|130|T|2.3||  
MFI|ADS||UPD||NE  
MFE|MAD||NDC^453763|CE
```

```
ZFM|A|NDC54868381300^54868-3813-0^YYYNDC|OXYCODONE HCL 10 mg TABLET SR 12 HR|4||HOSPITAL|OXYCODONE
HCL 10 mg TABLET SR 12 HR||10|mg|||||PHY TOT CA
MSH|^-\&|ZZZ|HOSPITAL|YYY|HOSPITAL|20060104112057|5589|MFN^M01|131|T|2.3||
MFI|ADS||UPD||NE
MFE|MUP||ERX^36207|CE
ZFM|A|7765^OXYCODONE HCL 10 MG PO TB12^YYY|OXYCODONE HCL 10 mg TABLET SR 12
HR|4||HOSPITAL|OXYCODONE HCL 10 mg TABLET SR 12 HR||10|mg|||||
MSH|^-\&|ZZZ|HOSPITAL|YYY|HOSPITAL|20060104112057|5589|MFN^M01|132|T|2.3||
MFI|ADS||UPD||NE
MFE|MDL||NDG^453763|CE
ZFM|A|NDC54868381300^54868-3813-0^YYYNDC|OXYCODONE HCL 10 mg TABLET SR 12 HR|4||HOSPITAL|OXYCODONE
HCL 10 mg TABLET SR 12 HR||10|mg|||||PHY TOT CA
```

Supported Segments and Fields

MSH - Message Header

Element Name	Type	Usage	Notes
2 - Encoding Characters	ST	R	Value is: ^-\&
3 - Sending Application	HD	O	Format: Free text, configurable
4 - Sending Facility	HD	O	Format: Free text, configurable
5 - Receiving Application	HD	O	Format: Free text, configurable
6 - Receiving Facility	HD	O	Format: Free text, configurable
7 - Date/Time of Message	DTM	R	Sending UTC offset is configurable. Example: 20140203133854-0500
8 - Security	ST	O	This field contains the user that triggered the interface message.
9 - Message Type	MSG	R	Sending <message structure> is configurable. Format: <Message type>^<Trigger event>^<message structure> Example: ADT^A08^ADT_A08 or ADT^A08
10 - Message Control ID	ST	R	The value sent in this field is returned in the acknowledgment message (MSA).
11 - Processing ID	PT	R	This field can contain the following values: <ul style="list-style-type: none"> D-Debugging P-Production T-Training
12 - Version ID	VID	R	HL7 version number. Example: 2.5.1
13 - Sequence Number	NM	O	

Supported Segments and Fields (continued)

14 - Not Supported			Optional field used in the sequence number protocol Format: Numeric
15 - Accept Acknowledgment Type	ID	O	This field indicates whether request enhanced acknowledgments are requested. If null, original acknowledgments are requested. Potential values include: <ul style="list-style-type: none"> • AL-Always send acknowledgment • NE-Never send acknowledgment • ER-Only send acknowledgments on errors • SU-Only send acknowledgments on success
16 - Application Acknowledgment Type	ID	O	This field indicates whether request enhanced application acknowledgments are requested. If null, original application acknowledgments are requested. Values: <ul style="list-style-type: none"> • AL-Always send acknowledgment • NE-Never send acknowledgment • ER-Only send acknowledgments on errors • SU-Only send acknowledgments on success
17 - Country Code	ID	O	This field contains the country code.
18 - Character Set	ID	O	Configurable. Supports options for Unicode UTF-8, ASCII, or ISO 8859-1. Default is no translation.
19 - Not Supported			
20 - Not Supported			
21 - Message Profile Identifier	ID	O	
22 - Sending Responsible Organization	XON	O	Free text
23 - Receiving Responsible Organization	XON	O	Free text

MFI - Master File Identification

Element Name	Type	Usage	Notes
1 - Master File Identifier	CE	R	Format:<ID> ^<Text> ^<Name of coding system> What is sent in this field is configurable.
2 - Not Supported			
3 - File-Level Event Code	ID	R	File-level event code. Only UPD (Change File Records as Defined in the Record-Level Event Codes for Each Record That Follows), is supported.
4 - Not Supported			

Supported Segments and Fields (continued)

5 - Not Supported

6 - Response Level Code	ID	R	This field specifies the application response level defined for a given Master File message at the MFE segment level. Only NE – Never; No Application-Level Response Is Needed, is supported.
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MFE - Master File Entry

Element Name	Type	Usage	Notes
1 - Record-Level Event Code	ID	R	This field defines the record-level event for the master file record identified by the MFI segment and the primary key field in this segment. Format: <ul style="list-style-type: none"> • MAD for Add • MUP for Update • MDL for Delete Example: MAD

2 - Not Supported

3 - Not Supported

4 - Primary Key Value	CWE	R	Master file identifier Format: <ID>^<ID Type>
5 - Primary Key Value Type		R	CE is the only supported code. The value is repeated for each identifier sent in MFE-4.

ZFM - Formulary Maintenance

Element Name	Type	Usage	Notes
1 - Formulary Code	ST	R	Action Code. The following codes are supported: <ul style="list-style-type: none"> • A - Add • C - Change • D - Delete
2 - Medication ID	ST	R	Medication Identifier in the external System, e.g., ACE325 for Acetaminophen 325. This is mapped in the application and configurable. Format: ACE325^^<ID Type>^^<Brand Name>
3 - Medication Name	ST	R	This field contains the "ADS Generic Name" for the Medication. Format: String Example: Acetaminophen 325 PO Tabs
4 - Medication Class	ST	R	DEA Schedule based on the state in which the facility is

Supported Segments and Fields (continued)

			located.
5 - Alternate Med ID	ST	O	An Alternate Identifier for the Medication.
6 - Facility Code	ST	R	Same as MSH-4.
7 - Brand Name	ST	O	
8 - Dosage Form	ST	R	Uses translation table
9 - Strength	ST	O	
10 - Strength Units	ST	O	Uses a translation table. The format is <ID>^<Text>.
11 - Volume	ST	O	
12 - Volume Units	ST	O	Uses a translation table. The format is <ID>^<Text>.
13 - Not Supported			
14 - Therapeutic Class	ST	R	Uses translation table
15 - Not Supported			
16 - Not Supported			
17 - Manufacturer	ST	O	The interface can send the manufacturer's full description, the "abbreviated name," or the manufacturer code.
18 - Package Size	ST	O	A textual description of the package size.

ZFX - Formulary Maintenance

Element Name	Type	Usage	Notes
1 - Formulary Code	ID	O	Action Code. The following codes are supported: <ul style="list-style-type: none"> • A - Add • C - Change • D - Delete
2 - Medication	CWE	O	Medication Identifier in the external system, e.g., ACE325 for Acetaminophen 325. This is mapped in the application and configurable. Format: Item ID ^ Name ^ ^ Alt item ID ^ Alt item name
3 - Concentration Volume	NM	O	Numeric volume of item.
4 - Concentration Volume Units	CWE	O	Units associated with ZFX-4 value. Format: <ID>^<Text>

Supported Segments and Fields (continued)

5 - Strength	ST	O	
6 - Strength Amount	NM	O	Numeric strength of item.
7 - Strength Unit Code	CWE	O	Units associated with the strength sent in ZFX-6. Format: <ID>^<Text>
8 - Volume	NM	O	
9 - Volume Units Code	CWE	O	Units associated with the volume sent in ZFX-8. Format: <ID>^<Text>
10 - Dosage Form	CWE	O	Dosage form build for the medication. Format: <Dosage Form Code> ^ <Dosage Form Description>
11 - Item Class	CWE	O	DEA class of the medication. Format: Item Class Code ^ Item Class Description
12 - Therapeutic Class	CWE	O	Therapeutic class of the the medication. Format: Therapeutic Class Code ^ Therapeutic Class Description
13 - Pure Generic Name	ST	O	The simple generic name for the medication.
14 - Not Supported			
15 - Not Supported			
16 - Not Supported			
17 - Not Supported			
18 - Not Supported			
19 - Not Supported			
20 - Not Supported			
21 - Not Supported			
22 - Not Supported			
23 - Not Supported			
24 - Not Supported			
25 - Not Supported			
26 - Not Supported			
27 - Not Supported			
28 - Not Supported			
29 - Not Supported			
30 - Not Supported			
31 - Not Supported			
32 - Not Supported			
33 - Not Supported			
34 - Zfx Hazard Level	ST	O	The ID of the hazard-level grouper (VCG) containing the medication.

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