Appendix

Dietetics' Order Entry Version 3 (CPRS) Pre-Install Documentation

Introduction

Dietetics Patch 12 is the Dietetics portion of the Order Entry Version 3 (CPRS) pre-install. It contains five routines, FHXOR3, FHWORI, FHORD, FHORT3, and FHWOR6. These routines are used to populate the Orderable Item file (#101.43) with the entries in the Diets file (#111) and the Tubefeeding file (#118.2). The initial population of the entries are executed by a post-init routine in patch 49 of Order Entry Version 2.5, OR*2.5*49. You can install this patch and the routines will not affect the current system of Dietetics or Order Entry. There will be no Orderable Item file population or update until patch OR*2.5*49 is installed.

This document contains the information on the format for communicating Orderable Item Updates from Dietetics to Order Entry and also the data elements that are being sent to Order Entry. Most of the specifications are based on the HL7 version 2.2 draft specification.

Post-Init Routine

There is one post-init routine, FHXOR3. It adds the three protocols FH EVSEND OR, FH RECEIVE, and FH ORDERABLE ITEM UPDATE to the protocol file (#101).

Orderable Item Updates

The initial population will be handled with a post-init routine FHWORI. Dietetics will compile the messages to populate Order Entry's Orderable Item file (#101.43) with Diets from the Diets file (#111) and then Tubefeedings from the Tubefeeding file (#118.2). The initial population will have one message per item. Afterwards, the inactivated Diets and Tubefeedings will be compiled and sent. The messages are compiled according to Order Entry Version 3 Package Interface Specifications 1.06. The segments that will be in the HL7 message are listed in the following table.

SEG	SEQ	FIELD NAME	EXAMPLE	HL7 TYPE
MSH	1	Field Separator	|	String
	2	Encoding Characters	^~\&	String
	3	Sending Application	DIETETICS	String
	4	Sending Facility	578	String
	9	Message Type	MFN	ID
MFI	1	Master File ID	111^Diets^99DD	Coded Element
	3	File-Level Event Code	REP	Table 178 (HL7 2.2)
	6	Response Level Code	NE	Table 179 (HL7 2.2)
{ MFE	1	Record-Level Event Code	MAD	Table 180 (HL7 2.2)
	4	Primary Key	^^^9^2gm Sodium^99FHD	Coded Element
ZFH	1	Type	D	Coded Value (D= diet modification, T= tubefeeding product)
	2	Precedence	1	Numeric
	3	Message	Some text	String
	4	Ask Expiration Date?	Y, N, or NULL	Yes or No
{ ZSY }	1	Set ID	1	Numeric
}	2	Synonym	NA2GM	String (repeating segment for multiple) If the type is diet, both fields, Synonym and Alternate Name, are included together in the ZSY segment.

The File-Level Event Code is REP and the Record-Level Event Code is MAD for the initial population. The File-Level Event Code is UPD and the Record-Level Event Code is MDC for all the inactivated items. The code MDC is used to discontinue the use of the record in the Orderable Item file, but not to delete. This will keep the

files, 111, 118.2, and 101.43 consistent. The following is a sample test run of the initial population.

```
MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^1^REGULAR^99FHD
MSG(4)=ZFH|D|20||Y
MSG(5)=ZSY|1|PRO 40 GM

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No response)

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^2^PROTEIN 40 GM^99FHD
MSG(4)=ZFH|D|5||Y
MSG(5)=ZSY|1|PRO 40 GM

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No response)

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^3^PROTEIN 20 GM^99FHD
MSG(4)=ZFH|D|5||N
MSG(5)=ZSY|1|PRO 20 GM

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No response)

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^6^SODIUM .5 GM^99FHD
MSG(4)=ZFH|D|6||
MSG(5)=ZSY|1|SODIUM
MSG(6)=ZSY|2|NA .5

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No response)

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^7^SODIUM 1 GM (44 mEq)^99FHD
MSG(4)=ZFH|D|6||Y
MSG(5)=ZSY|1|SODIUM

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No response)

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^8^SODIUM 2 GM (87 mEq)^99FHD
MSG(4)=ZFH|D|6||
MSG(5)=ZSY|1|SODIUM

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No response)

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^9^3-4 GM SODIUM^99FHD
MSG(4)=ZFH|D|6||N
```

```
MSG(5)=ZSY|1|3-4 GM SOD

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No response)

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^10^HIGH FIBER^99FHD
MSG(4)=ZFH|D|9||
MSG(5)=ZSY|1|HIGH FIBER

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No response)
```

After the population of Diet items, the tubefeeding items population will follow.

```
MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|118.2^TUBEFEEDING^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^1^AMIN-AID^99FHT
MSG(4)=ZFH|T
MSG(5)=ZSY|1|RENAL FAILURE SOLUTION

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No Response)

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|118.2^TUBEFEEDING^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^3^OSMOLITE^99FHT
MSG(4)=ZFH|T
MSG(5)=ZSY|1|STANDARD TUBEFEEDING
MSG(6)=ZSY|2|ISOCAL

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No Response)

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|118.2^TUBEFEEDING^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^4^CRITICARE HN^99FHT
MSG(4)=ZFH|T
MSG(5)=ZSY|1|HIGH NITROGEN ELEMENTAL
MSG(6)=ZSY|2|CRITICARE HN

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No Response)

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|118.2^TUBEFEEDING^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^5^SUSTACAL^99FHT
MSG(4)=ZFH|T
MSG(5)=ZSY|1|ENSURE
MSG(6)=ZSY|2|TRAVASORB LIQUID
MSG(7)=ZSY|3|STANDARD ORAL SUPPLEMENT

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No Response)

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|118.2^TUBEFEEDING^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^9^ISOCAL HCN^99FHT
MSG(4)=ZFH|T
MSG(5)=ZSY|1|HIGH KCAL/PRO TUBE FEEDING
MSG(6)=ZSY|2|MAGNACAL
```

```
D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No Response)

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|118.2^TUBEFEEDING^99DD||REP|||NE
MSG(3)=MFE|MAD|||^^^10^PRECISION LR^99FHT
MSG(4)=ZFH|T
MSG(5)=ZSY|1|INTACT PROTEIN

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No Response)
```

When initial population is complete, the inactive messages for Diets are compiled and sent.

```
MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||UPD|||NE
MSG(3)=MFE|MDC|||^^^17^POTASSIUM 2 GM^99FHD
MSG(4)=ZFH|D|32
MSG(5)=ZSY|1|2 GM K+

D MSG^XQOR("FH ORDERABLE ITEM UPDATE",.MSG)  (No Response)
```

After the inactive Diet messages are sent, Dietetics will compile a message for each inactivated tubefeeding.

```
MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|118.2^TUBEFEEDING^99DD||UPD|||NE
MSG(3)=MFE|MDC|||^^^18^TEST^99FHT
MSG(4)=ZFH|T
```

All the Record-Level Event Codes in Table 180 of HL7 Version 2.2 are used with File-Level Event code UPD. Record-level Event Code MAD is used to add items to the Orderable Item file. Record-level Event Code MDL is used to delete items in the Orderable Item file. Record-Level Event Code MUP is used to update the Orderable Item file. The following changes will trigger a HL7 message with a Record-Level Event Code of MUP:

For Diets:

1. Name change
2. Precedence change
3. The field "Ask Expiration Date?" is changed
4. Synonym change
5. Alternate Name (multiple) change

For Tubefeeding:

1. Name change
2. Synonym (multiple) change

If a diet or tubefeeding entry have all the changes listed above for its type, it will be regarded as a single HL7 message since the message will reflect all the changes to one record.

Record-Level Event Code MDC is used to inactivate (deactivate) a record. When a record is reactivated from inactive, the Record-Level Event Code MAC is used.

A sample Add update:

```
Add record for diet ZZTEST

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||UPD|||NE
MSG(3)=MFE|MAD|||^^^165^ZZTEST DIET^99FHD
MSG(4)=ZFH|D|90||Y
MSG(5)=ZSY|1|ZZT

Add record for tubefeeding ZZTEST TF

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|118.2^TUBEFEEDING^99DD||UPD|||NE
MSG(3)=MFE|MAD|||^^^26^ZZTEST TF^99FHT
MSG(4)=ZFH|T|
MSG(5)=ZSY|1|TEST TF
MSG(6)=ZSY|2|TF TEST
```

A sample Delete update:

```
Delete Diet ZZTEST

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||UPD|||NE
MSG(3)=MFE|MDL|||^^^165^ZZTEST^99FHD
MSG(4)=ZFH|D|90||Y
MSG(5)=ZSY|1|ZZT

Delete tubefeeding ZZTEST TF

MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|118.2^TUBEFEEDING^99DD||UPD|||NE
MSG(3)=MFE|MDL|||^^^26^ZZTEST TF^99FHT
MSG(4)=ZFH|T|
MSG(5)=ZSY|1|TEST TF
MSG(6)=ZSY|2|TF TEST
```

A sample Change update:

A change in name, synonym, or precedence in diet 1800 CAL ADA

```
MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||UPD|||NE
MSG(3)=MFE|MUP|||^^^32^1800 CAL ADA^99FHD
MSG(4)=ZFH|D|4||
MSG(5)=ZSY|1|DB1800 ADA
```

A change in name, or synonym in Tubefeeding PROMOD TEST

```
MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|118.2^TUBEFEEDING^99DD||UPD|||NE
MSG(3)=MFE|MUP|||^^^23^PROMOD TEST^99FHT
MSG(4)=ZFH|T|
MSG(5)=ZSY|1|PROMOD
MSG(6)=ZSY|2|PWDR PRO
```

A sample Deactivate (Inactive) Tubefeeding PROMOD TEST:

```
MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|118.2^TUBEFEEDING^99DD||UPD|||NE
MSG(3)=MFE|MDC|||^^^23^PROMOD TEST^99FHT
MSG(4)=ZFH|T|
MSG(5)=ZSY|1|PROMOD
MSG(6)=ZSY|2|PWDR PRO
```

A sample Reactivate an inactive Diet 1800 CAL ADA:

```
MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|111^DIETS^99DD||UPD|||NE
MSG(3)=MFE|MAC|||^^^32^1800 CAL ADA^99FHD
MSG(4)=ZFH|D|4
MSG(5)=ZSY|1|DB1800 ADA
```

Each record transaction is usually compiled as a message with a single MFE segment like above. A multiple MFE segments is compiled if there is more than one transaction to a record, such as if an inactive record was changed and reactivated. The following is an example:

```
MSG(1)=MSH|^~\&|DIETETICS|578|||||MFN
MSG(2)=MFI|118.2^TUBEFEEDING^99DD||UPD|||NE
MSG(3)=MFE|MUP|||^^^26^TEST FLUID RESTRICTION^99FHT
MSG(4)=ZFH|T|
MSG(5)=ZSY|1|TEST CC
MSG(6)=ZSY|3|FLUID CC TF
MSG(7)=ZSY|4|FLUID REST
MSG(8)=MFE|MAC|||^^^26^TEST FLUID RESTRICTION^99FHT
MSG(9)=ZFH|T|
MSG(10)=ZSY|1|TEST CC
MSG(11)=ZSY|3|FLUID CC TF
MSG(12)=ZSY|4|FLUID REST
```