

NetSolutions

NetSolutions HL7 Trigger Events & Message Definitions

Reference

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Trigger Events

These are the events that will trigger a message and the message code.

Event	Event Code
Admit inhouse resident	A01
Transfer	A02
Discharge	A03
Register an outpatient	A04
Pre-admission	A05
Update Resident	A08
Cancel admit	A11
Cancel transfer	A12
Cancel discharge	A13
Pending discharge	A16
Swap	A17
Bed status update	A20
Resident goes on Leave	A21
Resident returns from leave	A22
Delete a patient record	A23
Cancel pending discharge	A25
Add patient info	A28
Delete patient info	A29
Merge patient info	A30
Update person (inbound messages only)	A31
Merge patient info – ID only	A34
Observation Result	ORU^R01
Change visit admit date	Z34
RUGS III Assessment (inbound only VK, inbound and outbound NS)	ZR3
RUGS IV Assessment (inbound only VK, inbound and outbound NS)	ZR4
MDS 3.0 / PDPM (inbound and outbound NS)	ZR5
Acknowledge receipt of ADT message	ACK

MFN Event	Event Code
Add record to master file	MAD
Update record in master file	MUP
Delete record from master file	MDL
Discontinue record in master file	MDC
Reactivate deactivated record in master file	MAC
Acknowledge receipt of MFN message	ACK

Messages

Introduction

For each HL7 message, this section lists the message structure Cantata Health supports. Note that Cantata Health includes all required segments and omits only those optional segments that are not used. Cantata Health Development has created a user-defined segment ZR1 to allow interfacing of fields NetSolutions captures that are not part of the HL7 standard.

HL7 messages are composed of groups and segments that use this hierarchy:

- A **message** contains groups and segments.
- A **segment** contains fields.
- A **field** contains components.
- A **component** contains subcomponents.

When looking at the structure of an HL7 message in this document:

- No brackets and no braces surrounding a segment indicate that the message must contain exactly one value for the segment and only one value.
- [...] (brackets) around a segment indicate that the message can contain either one or no value.
- {...} (braces) around a segment indicate that the message requires one or more values.
- [...] (brackets surrounding braces) around a segment indicate that the message can contain any number of values or no value at all.

Admit a patient (A01)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[ZP1]	Additional Patient Information	
[{ NK1 }]	Next of Kin	3
PV1	Patient Visit	3
PV2	Patient Visit 2	3
[{ AL1 }]	Allergy Information	3
[{ DG1 }]	Diagnosis Information	6
[{ GT1 }]	Guarantor Information	6
[{ IN1 }]	Insurance Information	6
[ZC1]	HIE Consent Information	
[ZR1]	Resident Information	
[ZR2]	Additional Resident Information	
[ZPV]	Additional Visit Information	
[{ ZAP }]	Account-Plan Information	
[{ ZAG }]	Account-Plan-Seg Information	
[{ ZAL }]	Account-Plan Split Information	
[{ ZAX }]	Account-Plan Private Portion Trx Information	
[{ ZRD }]	Account-Plan Rolling Date Information	

[ZNK]	Additional Contact Information
[ZGT]	Additional Guarantor Information
[ZHS]	Hospital Stay Information

Notes:

- Re-reads the visit record into the buffer before processing the IN1 segment so that the proper Admission Date is used to determine the Plan Start Date.
- Automatically keeps any active apt/AL visit when an AL or SNF admission is received.

Transfer a patient (A02)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[ZP1]	Additional Patient Information	
PV1	Patient Visit	3
[ZC1]	HIE Consent Information	
[ZR1]	Resident Information	
[ZPV]	Additional Visit Information	

Notes:

For the outbound interface to Omnicare (Interface Name = OMNICARE):

- The ZRC segment is not sent as part of the A02 message.
- NetSolutions sends an A08 message following each A02 message triggered.

Discharge a patient (A03)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
[ZPV]	Additional Visit Information	

Notes:

- If a resident is on bed hold when discharged, the A03 message cancels the bed hold before discharging the resident.
- If a resident is discharged from an SNF visit and the resident has a kept apartment, NetSolutions discharges the SNF visit and no longer keeps the apartment.

Register a patient (A04)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[ZP1]	Additional Patient Information	
[{ NK1 }]	Next of Kin	3
PV1	Patient Visit	3
PV2	Patient Visit 2	3
[{ AL1 }]	Allergy Information	3
[{ DG1 }]	Diagnosis Information	6
[{ GT1 }]	Guarantor Information	6
[{ IN1 }]	Insurance Information	6
[ZR1]	Resident Information	
[ZR2]	Additional Resident Information	
[ZPV]	Additional Visit Information	
[{ ZAP }]	Account-Plan Information	
[{ ZAG }]	Account-Plan-Seg Information	
[{ ZAL }]	Account-Plan Split Information	
[{ ZAX }]	Account-Plan Private Portion Trx Information	
[{ ZRD }]	Account-Plan Rolling Date Information	
[ZNK]	Additional Contact Information	
[ZGT]	Additional Guarantor Information	
[ZHS]	Hospital Stay Information	

Pre-admission (A05)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[ZP1]	Additional Patient Information	
[{ NK1 }]	Next of Kin	3
PV1	Patient Visit	3
PV2	Patient Visit 2	3
[{ AL1 }]	Allergy Information	3
[{ DG1 }]	Diagnosis Information	6
[{ GT1 }]	Guarantor Information	6
[{ IN1 }]	Insurance Information	6

[ZC1]	HIE Consent Information
[ZR1]	Resident Information
[ZR2]	Additional Resident Information
[ZPV]	Additional Visit Information
[{ ZAP }]	Account-Plan Information
[{ ZAG }]	Account-Plan-Seg Information
[{ ZAL }]	Account-Plan Split Information
[{ ZAX }]	Account-Plan Private Portion Trx Information
[{ ZRD }]	Account-Plan Rolling Date Information
[ZNK]	Additional Contact Information
[ZGT]	Additional Guarantor Information
[ZHS]	Hospital Stay Information

Note:

When you disable a05 messages for prospects, NetSolutions also disables A03 and A08 messages for prospects as well.

Update patient information (A08)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[ZP1]	Additional Patient Information	
[{ NK1 }]	Next of Kin	3
PV1	Patient Visit	3
[{ AL1 }]	Allergy Information	3
[{ DG1 }]	Diagnosis Information	6
[{ GT1 }]	Guarantor Information	6
[{ IN1 }]	Insurance Information	6
[ZC1]	HIE Consent Information	
[ZR1]	Resident Information	
[ZR2]	Additional Resident Information	
[ZPV]	Additional Visit Information	
[{ ZAP }]	Account-Plan Information	
[{ ZAG }]	Account-Plan-Seg Information	
[{ ZAL }]	Account-Plan Split Information	
[{ ZAX }]	Account-Plan Private Portion Trx Information	
[{ ZRD }]	Account-Plan Rolling Date Information	
[ZNK]	Additional Contact Information	
[ZGT]	Additional Guarantor Information	
[ZHS]	Hospital Stay Information	

Note:

NetSolutions holds all A08 transactions created when a resident is registered or when a resident's registration is updated for 10 minutes before sending. Whenever a user clicks the Next button during registration (or while updating registration) the record is saved and an A08 message generated. Holding the

messages prevents NetSolutions from creating new messages during the registration process and flooding the receiving application; instead, after 10 minutes a single A08 message containing all the new or updated information is sent.

Cancel admit (A11)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
[ZPV]	Additional Visit Information	

Cancel transfer (A12)

A12 messages (Cancel Transfer) are received or routed only. NetSolutions does not trigger this message.

When NetSolutions receives an A12 message, the program reassigned the resident to the bed in the PV1 assigned patient location field.

If routing the A12, NetSolutions uses the prior bed information to populate the PV1-6 section (Prior Location) of the A12 message that is exported.

Cancel discharge (A13)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
[ZPV]	Additional Visit Information	

Pending discharge (A16)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3

Swap patients (A17)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient (1) Identification	3
PV1	Patient (1) Visit	3
ZPV	Additional (1) Visit Information	
PID	Patient (2) Identification	3
PV1	Patient (2) Visit	3
ZPV	Additional (2) Visit Information	

Bed status update (A20)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
NPU	Non-patient Update	3

Patient goes on a "leave of absence" (A21)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[ZP1]	Additional Patient Information	
PV1	Patient Visit	3
[ZPV]	Additional Visit Information	
[ZHS]	Hospital Stay Information	

Patient returns from a "leave of absence" (A22)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[ZP1]	Additional Patient Information	
PV1	Patient Visit	3
[ZR1]	Resident Information	
[ZPV]	Additional Visit Information	
[ZHS]	Hospital Stay Information	

Delete a patient record (A23)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3

Cancel pending discharge (A25)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3

Add patient info (A28)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[ZP1]	Additional Patient Information	
[{ AL1 }]	Allergy Information	3
[{ NK1 }]	Next of Kin	3
PV1	Patient Visit	3
[{ DG1 }]	Diagnosis Information	6
[{ GT1 }]	Guarantor Information	6
[{ IN1 }]	Insurance Information	6
[ZR1]	Resident Information	
[{ ZAP }]	Account-Plan Information	
[{ ZAG }]	Account-Plan-Seg Information	
[{ ZAL }]	Account-Plan Split Information	
[{ ZAX }]	Account-Plan Private Portion Trx Information	
[{ ZRD }]	Account-Plan Rolling Date Information	
[ZNK]	Additional Contact Information	
[ZGT]	Additional Guarantor Information	

Delete patient info (A29)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2

EVN	Event Type	3
PID	Patient Identification	3
[ZC1]	HIE Consent Information	

Merge patient info (A30)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
MRG	Merge Information	3

Update person (A31)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
[ZC1]	HIE Consent Information	
[{OBX}]	Observation/Result	
[{AL1}]	Patient Allergy Information	

Note:

The update person message (A31) is recognized by the interface for inbound messages and processed in the same manner as a update patient information (A08) message. The update person (A31) event is not supported for outbound ADT messages.

Observation Result (ORU^R01)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
PID	Patient Identification	3
PV1	Patient Visit	3
PV2	Patient Visit 2	3
[OBR]	Observation Request	

Note:s

- If the OBX has an OBX-3 value &GDT, the OBX-5 is processed as an IPN note. The note date is either OBX-14 or OBR-8 or OBR-7, whichever

has the first non-blank value. The physician name in OBX-16 is used in the note text to indicate who wrote the note. The IPN category for the note is Phys Notes.

- The R01 event has been added to the following interfaces: CCT, OptimaRehab, Casamba, and Standard HL7.

Merge patient information - patient ID only (A34)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
MRG	Merge Information	3

Note:

The inbound A34 handler checks for the MRG-4 value on A34 messages. If this value is available and numeric, NetSolutions modifies the resident.epi_number rather than the health_rec_nbr using the first component of the PID-2 value. If the MRG-4 value is present in the message but is not numeric, NetSolutions rejects the message. For A34 messages with no MRG-4 value, NetSolutions uses the MRG-1 value to identify the resident to be changed and the PID-3 value as the new health record number.

Update visit information (Z01)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
Z01	RAM/Clinical Visit Information	
{ ZHS }	Hospital Stay Information	

Change admit date (Z34)

<u>ADT</u>	<u>ADT Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
ZR1	Resident Information	
ZOV	Original Visit Information	

Note:

The EVN event planned date and time are the new admit date and time.

IRF-PAI (ZIR)

<u>ZIR</u>	<u>ZIR Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
{ ZIR }	Assessment scores	

Resident Assessment (ZR3)

<u>ZR3</u>	<u>ZR3 Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
{ ZR3 }	Resident Assessment RUGS III	

Resident Assessment (ZR4)

<u>ZR4</u>	<u>ZR4 Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
{ ZR4 }	Resident Assessment	

MDS 3.0 / PDPM (ZR5)

<u>ZR5</u>	<u>ZR4 Message</u>	<u>Chapter</u>
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
{ ZR5 }	Resident Assessment	

General acknowledgement

<u>ACK</u>	<u>ACK Message</u>	<u>Chapter</u>
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2

Master file update

<u>MFN</u>	<u>Master File Notification</u>	<u>Chapter</u>
MSH	Message Header	2
MFI	Master File Identification	8
MFE	Master File Entry	8
STF	Staff Identification	8
PRA	Practitioner	8

Master file acknowledgement

<u>MFK</u>	<u>Master File Acknowledgement</u>	<u>Chapter</u>
MSH	Message Header	2
MSA	Acknowledgement	2
MFI	Master File Identification	8
MFA	Master file ACK segment	8

Query for immediate response

<u>QRY</u>	<u>Query</u>	<u>Chapter</u>
MSH	Message Header	2
QRD	Query Definition	2

Detailed financial transaction (DFT)

<u>DSR</u>	<u>Response</u>	<u>Chapter</u>
MSH	Message Header	2
PID	Patient Identification	3
PV1	Patient Visit	3
FT1	Financial Transaction	6

Segments

For each Segment, this lists each data element. In the Required/Optional column, if HL7 has a field marked as Required, we include the field. For optional fields, we check mark the fields we send and take in. Fields marked either Required, Conditional, or with a check mark will be ignored by the Resident Accounting interface.

AL1 - Allergy information

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI	R			00203	Set Id
2	2	ID			0127	00204	Allergy Type
3	60	CE	R			002-5	Allergy Code/Mnemonic/Description
4	2	ID			0128	00206	Allergy Severity
5	15	ST				00207	Allergy Reaction
6	8	DT				00208	Identification Date

Field Notes:

- 1 Set ID
Start with 1 increment by 1 for each additional segment
- 2 Allergy Type
From table 127 - DA - Drug, FA - Food, MA – Miscellaneous
For the interface ID BDMHL7 **only** NetSolutions includes the allergy type in segment AL1-2 as "DA". For example, AL1 | 1 | DA | ^NKA^ | | 20170505 |
- 3 Allergy Code/Mnemonic/Description
res-allergy.description
Only use 2nd component. For example - ^allergy description^^^^
Also, indicates if the resident has No Known Allergies. When a resident has No Known Allergies, the AL1 segment is sent like this: AL1 | 1 | | ^NKA^ | | 20170505 |
- 4 Allergy Severity
res-allergy.severity or Y/N for ongoing for VCLIN interfaces
- 5 Allergy Reaction
res-allergy.reaction
- 6 Identification Date
res-allergy.id-date

DG1 - Diagnosis

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI	R			00375	Set ID - diagnosis
2	2	ID	R		0053	00376	Diagnosis coding method
3	8	ID	—		0051	00377	Diagnosis code
4	40	ST	—			00378	Diagnosis description
5	26	TS	—			00379	Diagnosis date/time
6	2	ID	R		0052	00380	Diagnosis/DRG type
7	60	CE			0118	00381	Major diagnostic category
8	4	ID			0055	00382	Diagnostic related group
9	2	ID	—			00383	DRG approval indicator
10	2	ID			0056	00384	DRG grouper review code
11	60	CE			0083	00385	Outlier type
12	3	NM				00386	Outlier days
13	12	NM	—			00387	Outlier cost
14	4	ST				00388	Grouper version and type
15	2	NM				00389	Diagnosis/DRG priority
16	60	CN			0228	00390	Diagnosing clinician
17	3	IS	—		0136	00766	Diagnosis Classification
18	1	ID				00767	Confidential Indicator
19	26	TS				00768	Attestation Date/Time

General Notes:

Standard ICD9 codes and descriptions are used.

NetSolutions accepts a delete marker DG1 segment to clear out all diagnoses.

- To clear out all ICD9 diagnoses send a single DG1|1|I9|"".
- To clear out all ICD10 diagnoses send a single DG1|1|I10|"".
- To clear out both send two DG1 segments DG1|1|I9|"" and DG1|2|I10|"".

Field Notes:

- 1 Set ID - diagnosis
start with 1 increment by 1 for each additional segment
- 2 Diagnosis coding Method:
literal value 'I9' or 'I10'
- 3 Diagnosis code: (required by RAM)
diagnoses.icd9-code when field 6 is admit
dsch-diagnoses.icd9-code when field 6 is final
for ICD-10 ICD10 code^ dx description^I10
- 4 Diagnosis Description:
if diagnoses.user-desc is non-blank then use it else use icd9.icd9-description of diagnoses
for ICD-10 this is blank
- 5 Diagnosis Date/Time:
diagnoses.start-date for Admit diagnoses; visit.discharge-date for final diagnoses if available,
otherwise, blank.
- 6 Diagnosis DRG type:
literal values 'C' or 'F', for current or final
The following types are accepted when not VistaKeane Clinicals:

Blank, A (admt), I (intermediate), AD, C, CU (current diagnosis) H (history), D (discharge), F (discharge diagnosis)

NOTE: When the DG1-6 segment contains an invalid value, NetSolutions gives a warning and the diagnosis is set as a current diagnosis.

For VistaKeane Clinicals - string containing one or more of the following literals: 'C' for current, 'F' for final/discharge, 'B' for part-b, 'L' for leave.

10 DRG Grouper Review Code:

if current diagnosis then 'Y' if part-b diagnosis, 'N' if not.

15 Diagnosis/DRG Priority:

if diagnosis is primary (sequence = 01) then '1' else '2';

when receiving, if '1' then sequence assigned to 01,

diagnoses sequenced in order they are received; for VistaKeane Clinicals sequence left alone, new ones added to end.

19 Attestation Date/Time:

diagnosis.stop-date, blank for discharge diagnoses

DSP - Response to query

SEQ	LEN	DT	OPT	RP/#	TBL #	ITEM #	ELEMENT NAME
1	4	SI	O			00061	Set ID - DSP
2	4	SI	O			00062	Display Level
3	300	TX	R			00063	Data Line

General Notes:

The DSP segment is used to contain data that has been preformatted by the sender for display. The semantic content of the data is lost; the data is simply treated as lines of text.

Field Notes:

- 1 Set ID
This will be empty
- 2 Display Level
This will be empty
- 3 Data Line
In response to query type 'ZAN' this will contain the Resident Account Number that corresponds to the Medical Record Number received.
In response to query type 'ZBU', this will contain the description of the Business Unit associated with the bed the resident occupies.

ERR - Error

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	80	CM	R	Y	0060	00024	Error Code and Location

General Notes:

The error code is defined by the sender and reported by the receiver on the error log report. We will send and report up to sixty characters.

Field Notes:

- 1 Error Code and Location
Format "segment ID^sequence ID^field position^error code". This data will be ignored by this version of the interface. It is sent because it is required by HL7.

EVN - Event type

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	3	ID	R		0003	00099	Event Type Code
2	26	TS	R			00100	Date/Time of Event
3	26	TS	—			00101	Date/Time Planned Event
4	3	ID			0062	00102	Event Reason Code
5	5	ID			0188	00103	Operator ID

Field Notes:

- 1 Event code
A three character code indicating the event that generated the message. The supported event codes are listed in the Trigger Events section of this document.
- 2 Date/Time of Event
date and time the event occurs
- 3 Date/Time Planned Event
date and time the event is to happen - admit date for A01, transfer date for A02, discharge date for A03, ...
When the EVN-3 segment of an inbound HL7 message is left blank, NetSolutions puts the EVN-2 value in the EVN-3 position. EVN-3 is an optional field by the HL7 standard, though NetSolutions requires EVN-3 to have a value or else the message is rejected.
- 4 Event Reason Code
In **A02**: used to identify whether a transfer is normal (to the same bed type):
Empty - normal
200 - normal
210 - marks the apartment/alf as kept, then a new A01 can be sent to admit the resident into the snf bed
212 - returns the kept apt/alf to active after a discharging an open snf visit with an A03
NetSolutions reports an error if the EVN-4 value is invalid and rolls back any changes if an error occurs.

in **A21**: used to distinguish between a new leave and updating an already existing leave (could not use A22 because it has an order end date and it does not have the hold reason nor the hold provider):

- 800 - start a new leave

- 808 - update an already existing leave

in **A22**: used to distinguish between ending and canceling a leave:

- 800 - end a leave

- 802 - cancel a leave

FT1 - Financial transaction

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI	O			00355	Set ID - FT1
2	12	ST	O			00356	Transaction ID
3	10	ST	O			00357	Transaction Batch ID
4	26	TS	R			00358	Transaction Date
5	26	TS	O			00359	Transaction Posting Date
6	8	IS	R		0017	00360	Transaction Type
7	80	CE	R		0132	00361	Transaction Code
8	40	ST	B			00362	Transaction Description
9	40	ST	B			00363	Transaction Description - Alt
10	6	NM	O			00364	Transaction Quantity
11	12	CP	O			00365	Transaction Amount - Extended
12	12	CP	O			00366	Transaction Amount - Unit
13	60	CE	O		0049	00367	Department Code
14	60	CE	O		0072	00368	Insurance Plan ID
15	12	CP	O			00369	Insurance Amount
16	80	PL	O			00133	Assigned Patient Location
17	1	IS	O		0024	00370	Fee Schedule
18	2	IS	O		0018	00148	Patient Type
19	60	CE	O	Y	0051	00371	Diagnosis Code - FT1
20	120	XCN	O	Y	0084	00372	Performed By Code
21	120	XCN	O	Y		00373	Ordered By Code
22	12	CP	O			00374	Unit Cost
23	22	EI	O			00217	Filler Order Number
24	120	XCN	O	Y		00765	Entered By Code
25	80	CE	O		0088	00393	Procedure Code
26	80	CE	O	Y	0340	01316	Procedure Code Modifier

Field Notes:

- 4 Transaction Date
date of service for transaction
- 6 Transaction Type
when 'Credit' then t-ft1.t-seg-f-{@w-ft1-trx-type} = 'R'. /* KIC */
when 'Charge' then t-ft1.t-seg-f-{@w-ft1-trx-type} = 'C'. /* KIC */
when 'V' then t-ft1.t-seg-f-{@w-ft1-trx-type} = 'C'. /* Pyxis Vend */
when 'W' then t-ft1.t-seg-f-{@w-ft1-trx-type} = 'C'. /* Pyxis Waste */
- 7 Transaction Code
must match item.item-code from the RAM Item Profile
- 10 Quantity
If an amount is present in field 11 and the sending interface ID is KEANECLIN, set the quantity to 1 and use the amount as the extended override price. Provide a warning if the quantity is changed to 1. IF the interface is not KEANECLIN and the quantity is not 1, treat the amount as the unit price.
- If there is no value in field 11, but a value in field 12 set the quantity to 1. Provide a warning if the quantity is changed to 1. Use the field 12 amount as the extended amount.
- 11 Transaction Amount Extended
If null, omitted or 0 and field 12 is null, omitted or 0, then use the price from the Item Profile

12 Transaction Amount Unit

If null, omitted or 0 and field 12 is null, omitted or 0, then use the price from the Item Profile

Note that the handling of the amount fields is reversed as according to the 2.3 standard. This is a current program bug that will be addressed as needed.

GT1 - Guarantor

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM #	ELEMENT NAME
1	4	SI	R			00405	Set ID - guarantor
2	20	CK	—			00406	Guarantor number
3	48	PN	R			00407	Guarantor name
4	48	PN				00408	Guarantor spouse name
5	106	AD	—			00409	Guarantor address
6	40	TN	—			00410	Guarantor ph num- home
7	40	TN	—	Y/3		00411	Guarantor ph num-business
8	8	DT		Y/3		00412	Guarantor date of birth
9	1	ID			0001	00413	Guarantor sex
10	2	ID			0068	00414	Guarantor type
11	2	ID	—		0063	00415	Guarantor relationship
12	11	ST				00416	Guarantor SSN
13	8	DT				00417	Guarantor date - begin
14	8	DT				00418	Guarantor date - end
15	2	NM				00419	Guarantor priority
16	45	ST				00420	Guarantor employer name
17	106	AD				00421	Guarantor employer address
18	40	TN				00422	Guarantor employ phone number
19	20	ST		Y/3		00423	Guarantor employee ID num
20	2	ID			0066	00424	Guarantor employment status
21	60	ST				00425	Guarantor organization
...							...
45	48	XPN				00748	Contact Person's Name

Field Notes:

- 1 Set ID - guarantor
always '1'
- 2 Guarantor number
payor.short-name of guarantor
- 3 Guarantor name
payor.payor-name of guarantor: last-name^first-name^middle-initial
- 5 Guarantor address
payor.address-1^payor.address-2^payor.city^payor.state^payor.zip-code of guarantor
- 6 Guarantor ph num-home
payor.phone of guarantor
- 7 Guarantor ph num-business
guarantor.bus-phone
- 11 Guarantor relationship
relation of guarantor; sent as relationID^relationDescription
- 21 Guarantor organization
Organization name^notify in case of death ^notify in case of emergency^print guarantor statement
- 45 Guarantor contact

IN1 - Insurance

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI	R	Y/3	0072	00426	Set ID - insurance
2	8	ID	R			00427	Insurance plan ID
3	6	ST	R			00428	Insurance company ID
4	45	ST	—			00429	Insurance company name
5	106	AD				00430	Insurance company address
6	48	PN				00431	Insurance co. Contact pers
7	40	TN				00432	Insurance co phone number
8	12	ST				00433	Group number
9	35	ST				00434	Group name
10	12	ST				00435	Insured's group emp ID
11	45	ST				00436	Insured's group emp Name
12	8	DT				00437	Plan effective date
13	8	DT				00438	Plan expiration date
14	55	CM				00439	Authorization information
15	2	ID	—			0086	00440
16	48	PN		0063	00441	Name of insured	
17	2	ID			00442	Insured's relationship to patient	
18	8	DT			00443	Insured's date of birth	
19	106	AD			00444	Insured's address	
20	2	ID			0135	00445	Assignment of benefits
21	2	ID			0173	00446	Coordination of benefits
22	2	ST			00447	Coord of ben. Priority	
23	2	ID			0081	00448	Notice of admission code
24	8	DT			0094	00449	Notice of admission date
25	2	ID			0093	00450	Rpt of eligibility code
26	8	DT			00451	Rpt of eligibility date	
27	2	ID			0093	00452	Release information code
28	15	ST			00453	Pre-admit cert (PAC)	
29	26	TS			00454	Verification date/time	
30	60	CN			00455	Verification by	
31	2	ID		0098	00456	Type of agreement code	
32	2	ID		0022	00457	Billing status	
33	4	NM		00458	lifetime reserve days		
34	4	NM		00459	Delay before L. R. day		
35	8	ID		0042	00460	Company plan code	
36	15	ST	—	00461	Policy number		
37	12	NM		00462	Policy deductible		
38	12	NM		00463	Policy limit - amount		
39	4	NM		00464	Policy limit - days		
40	12	NM		00465	Room rate - semi-private		
41	12	NM		00466	Room rate - private		
42	60	CE		0066	00467	Insured's employment status	
43	1	ID		0001	00468	Insured's sex	
44	106	AD		00469	Insured's employer address		
45	2	ST		00470	Verification status		
46	8	ID		0072	00471	Prior insurance plan ID	
49	250	CX		Y	01230	Insured's ID number	

General Notes:

The insurance segment is used to interface Medicare and Medicaid numbers and commercial insurer name and policy number. The policy number field is used for the Medicare, Medicaid and commercial policy number.

If you select the Include Only Active Insurance Plans checkbox on the Interface Definitions page, the IN1 segment skips IN1, ZAPs and ZAGs for inactive, voided, or ended plans.

Field Notes:

- 1 Set ID - insurance
start with 1 increment by 1 for each additional segment
- 2 Insurance plan ID
plan.hl7-plan-id
- 3 Insurance company ID
first 6 positions of payor.payor-shortname
- 4 Insurance company name
payor.payor-name
- 15 Plan Type
MR (Medicare), MD (Medicaid), PV (private), CO (commercial)
- 17 Insured's relationship to patient
the ANSI Individual Relationship Code from the Reimb Table/Policy Info when the payor type for a resident is Commercial.
if the ANSI Individual Relationship Code is blank, the value in the 1500 Box No/Other Code is sent instead.
if both these fields are blank and the receiving app is QS1 then the value 00 is sent in IN1-17
if the receiving app is not QS1 then the IN1-17 is left blank
- 22 Coordination of benefits Priority – Priority sequence of insurance; for RAM this is the value of Set ID
- 35 Company plan code
when the payor is Medicare then this field is 'A' when the payor is Medicare A and 'B' when it is Medicare B; the payor.payortype-type field is used
- 36 Policy number
resident.medicaid-num or resident.medicare-num or
acc-plan.group-number depending on field 15
updates the Policy Holder ID field on the Plan Summary page when an inbound message containing this segment adds or updates a commercial insurance plan.

MDM-T02 - Original document notification and content

The HL7 MDM message helps manage medical records by transmitting new or updated documents, or by transmitting important status information and/or updates for the record. The MDM-T02 contains the original document notification and the document contents.

NetSolutions uses the MDM-T02 segment to import IPN Progressed Notes using the OptimaRehab or HL7 Generic interface types.

General Notes:

The OBX segment is an important part of MDM-T02 messages, which include document contents. It is used to separate the body contents from places where headings or other separations might occur. Message types that include document contents are significantly longer, and may have repeating OBX segments depending on how much data needs to be conveyed.

MFA - Master file acknowledgement segment

SEQ	LEN	DT	C	RP/#	TBL#	ITEM#	ELEMENT NAME
1	3	ID	R		0180	00664	Record-level event code
2	20	ST	C			00665	MFN control ID
3	26	TS	C			00668	Event completion date/time
4	60	CE	R		0181	00669	Error return code and/or text
5	60	CE	R	Y		00670	Primary key value

Field Notes:

- 1 Record-level event code
Return record-level event code from MFE segment of initial message
- 2 MFN control-ID
omit
- 3 Event completion date/time
omit
- 4 Error return code and/or text
sender defined error code or text - receiver will display on error log
- 5 Primary key value
Primary key value from MFE segment of initial message

MFE - Master file entry

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	3	ID	R		0180	00664	Record-level event code
2	20	ST	C			00665	MFN control ID
3	26	TS				00666	Effective date/time

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
4	60	CE	R	Y		00667	Primary key value

Field Notes:

- 1 Record-level event code
'MAD' 'MUP' 'MDL' 'MDC' 'MAC'
- 4 Primary key value
For PRA (practitioner master file) - physician.upin

MFI - Master file identification

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	60	CE	R	N	0175	00658	Master file identifier
2	6	ID			0176	00659	Master file application identifier
3	3	ID	R		0178	00660	File-level event code
4	26	TS				00661	Entered date/time
5	26	TS				00662	Effective date/time
6	2	ID	R		0179	00663	Response level code

General Notes:

Keane will support record level event processing only. MFN messages will always be acknowledged whether errors exist or not.

Field Notes:

- 1 Master file identifier
Identifies a standard HL7 master file or site-specific (Z) file. Use one of the following:

PRA - Practitioner Master

Only the first component, the identifier, will be used here.

- 3 File-level event code
value 'UPD'
- 6 Response level code
value 'AL'

MRG - Merge information

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	20	C	R			00211	Prior Patient ID - Internal
2	16	M				00212	Prior Alternate Patient ID
3	20	ST				00213	Prior Patient Account Number
4	16	CK				00214	Prior Patient ID - External

General Notes:

This segment is used in the A30 event (Merge patient info) to identify patient, whose info needs to be changed and in the A34 event (Merge patient info - ID only) to identify that the patient's primary ID number has changed.

Field Notes:

- 1 Prior Patient ID - Internal
resident.mrnum in A30 and visit.mrnum/resident/health_rec_nbr in A34 (depending on the facility medical record number resident or visit setting)
Also propagates updates to resident.medical_rec_nbr, and the fields in the residentNumbers table.

- 4 Prior Patient ID – External
Used to update the resident epi_number to a new value
For A34 messages, if MRG-4 value is present, the resident.epi_number is updated with the PID-2 value and the medical record numbers are not.

Any other field values in the PID segment are also applied to the resident (ie name, address,...)

MSA - Message acknowledgement

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	2	ID	R		0008	00018	Acknowledgement Code
2	20	ST	R			00019	Message Control ID
3	80	ST	—			00020	Text Message
4	15	N			0102	00021	Expected Sequence Number
5	1	M				00022	Delayed Acknowledgement Type
6	100	ID CE				00023	Error Condition

Field Notes:

- 1 Acknowledgement code
values 'AA' 'AR' or 'AE' from table 18
- 2 Message Control ID
message number of message which this acknowledges
- 3 Text Message
if the acknowledgement code is AR or AE then this text will give a summary description of why the message was rejected. This information will also be written to the Interface Error Log.

MSH - Message header

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	1	ST	R			00001	Field separator
2	4	ST	R			00002	Encoding characters
3	15	ST	—			00003	Sending application
4	20	ST	—			00004	Sending facility
5	30	ST	—			00005	Receiving application
6	30	ST	—			00006	Receiving facility
7	26	TS	—			00007	Date/time of message
8	40	ST				00008	Security
9	7	C	R		0076	00009	Message type
10	20	M	R			00010	Message control ID
11	1	ST	R		0103	00011	Processing ID
12	8	ID	R		0104	00012	Version ID
13	15	ID				00013	Sequence number
14	180	N				00014	Continuation pointer
15	2	M			0155	00015	Accept acknowledgement type
16	2	ST			0155	00016	Application acknowledgement type
17	2	ID				00017	Country code
		ID					
		ID					

Field Notes:

- 1 Field Separator:
let's use HL7 recommended "|"
- 2 Encoding Characters:
four separators: component, repetition, escape, sub-component. Let's use HL7 recommended ^~\&
- 3 Sending Application:
User-defined three character code (we suggest RAM for outbound messages)
- 4 Sending Facility:
facility.facility-code for outbound messages
- 5 Receiving Application:
User-defined three character code (we suggest RAM for inbound messages)
- 6 Receiving Facility:
001, 002, 003, ...
If omitted on inbound we will assume 001.
- 7 Date/Time of Message:
YYYYMMDDHHmm
- 9 Message Type:
ADT, ACK, MFN, MFK
Can also be the Message Type followed by '^' and then the event type. For example, 'ADT^A03'
- 10 Message Control ID:
format 9999999 increasing from one by one - rolls over to 1 at value 9999999.
- 11 Processing ID:
[D]ebugging, [P]roduction, [T]raining. When 'D' messages may be viewed and modified before being processed.
- 12 Version ID:
value '2.2' or '220' or '2.3'

NK1 - Next-of-kin

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI	R			00190	Set ID - Next of Kin
2	48	PN	—			00191	Name
3	60	CE	—		0063	00192	Relationship
4	106	AD	—			00193	Address
5	40	TN	—	Y/3		00194	Phone Number
6	40	TN	—			00195	Business Phone Number
7	60	CE	—		0131	00196	Contact Role
8	8	DT				00197	Start Date
9	8	DT				00198	End Date
10	60	ST				00199	Next of Kin Job Title
11	20	C				00200	Next of Kin Job Code/Class
12	20	M	—			00201	Next of Kin Employee Number
13	60	ST				00202	Organization Name
...		ST	—				...
33	30	CX				00751	Next of Kin/Associated Party's Identifiers

Field Notes:

- 1 Set ID - Next of Kin
increment by 1 for each next of kin/contact.
- 2 Name
last-name^first-name^middle-initial^modifier^title
- 3 Relationship
relation of contact.relation-code
This is sent as relationID^relationDescription
- 4 Address
address1, address2, city, state, zip-code
- 5 Phone Number
PhoneNumber ^TelecommunicationUseCode^.TelecommunicationEquipmentType^
EmailAddress
Repeating element
Home phone number:
TelecommunicationUseCode = "PRN" .TelecommunicationEquipmentType = "PH"
Other personal phone number:
TelecommunicationUseCode = "ORN" .TelecommunicationEquipmentType = "PH"
- 6 Business Phone Number
PhoneNumber ^TelecommunicationUseCode^.TelecommunicationEquipmentType
Repeating element
Office number
TelecommunicationUseCode = "WPN" .TelecommunicationEquipmentType = "PH"
Pager number
TelecommunicationUseCode = "WPN" .TelecommunicationEquipmentType = "BP"
Fax number
TelecommunicationUseCode = "WPN" .TelecommunicationEquipmentType = "FX"
Cell number
TelecommunicationUseCode = "WPN" .TelecommunicationEquipmentType = "CP"
Modem number
TelecommunicationUseCode = "WPN" .TelecommunicationEquipmentType = "MD"

Email address

TelecommunicationUseCode = "NET" .TelecommunicationEquipmentType = "x.400"

7 Contact Role

roleID^roleDescription

The role associated with the contact. If more than one role is associated with the contact, a separate NK1 segment will be sent for each one.

13 Organization Name

This field is made of the following four parts:

agency name^notify in case of death indicator^notify in case of emergency indicator^print statement indicator

33 Next of Kin/Associated Party's Identifiers

Value^^^IdentifierTypeCode

Repeating element

Notes

.IdentifierTypeCode = "TypeCode " Value = role.hl7-id

.IdentifierTypeCode = "Comments" Value = contact.comments

.IdentifierTypeCode = "Rank" Value = rank of contact within role

NPU - Non-patient update

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	12	C	R		0079	00209	Bed Location
2	1	M			0116	00170	Bed Status
		ID					

Field Notes:

1 Bed Location

bed.bed-name^bed-status where bed-status = C for closed or U for unoccupied.

example - 2E^201^A^C - bed is closed

OBX - Result

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM #	ELEMENT NAME
1	10	SI	O			00569	Set ID - OBX
2	3	ID	C		0125	00570	Value Type
3	590	CE	R			00571	Observation Identifier
4	20	ST	C			00572	Observation Sub-ID
5	65536	*	C	Y ¹		00573	Observation Value
6	60	CE	O			00574	Units
7	60	ST	O			00575	References Range
8	5	ID	O	Y/5	0078	00576	Abnormal Flags
9	5	NM	O			00577	Probability
10	2	ID	O	Y	0080	00578	Nature of Abnormal Test
11	1	ID	R		0085	00579	Observation Result Status

Field Notes:

OBX-1: Always 1

OBX-2: ED

OBX-3: CCD^

OBX-5: 5th component - Base 64 encoded CCD xml for the given patient identified in the PID segment

For **ORU^R01** messages, if the OBX has an OBX-3 value &GDT, the OBX-5 is processed as an IPN note. The note date is either OBX-14 or OBR-8 or OBR-7, whichever has the first non-blank value. The physician name in OBX-16 is used in the note text to indicate who wrote the note. The IPN category for the note is Phys Notes; this category is added if it does not already exist.

OBX-11: F

PID - Resident identification

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI				00104	Set ID - Patient ID
2	16	CK				00105	Patient ID (External ID)
3	20	CM	R	Y		00106	Patient ID (Internal ID)
4	12	ST				00107	Alternate Patient ID
5	48	PN	R			00108	Patient Name
6	30	ST	—			00109	Mother's Maiden Name
7	8	DT	—			00110	Date of Birth
8	1	ID	—		0001	00111	Sex
9	48	PN	—	Y		00112	Patient Alias
10	1	ID	—		0005	00113	Race
11	106	AD	—	Y/3		00114	Patient Address
12	4	ID	—			00115	County Code
13	40	TN	—	Y/3		00116	Phone Number - Home
14	40	TN	—	Y/3		00117	Phone Number - Business
15	25	ST				00118	Language - Patient
16	1	ID	—		0002	00119	Marital Status
17	3	ID	—		0006	00120	Religion
18	20	CK	—			00121	Patient Account Number
19	16	ST	—			00122	SSN Number - Patient
20	25	CM				00123	Driver's Lic Num - Patient
21	20	CK				00124	Mother's Identifier
22	1	ID			0189	00125	Ethnic Group
23	25	ST	—			00126	Birth Place
24	2	ID				00127	Multiple Birth Indicator
25	2	NM				00128	Birth Order
26	3	ID	—	Y		00129	Citizenship
27	60	CE				00130	Veterans Military Status
28	80	CE				00131	Nationality
29	26	TS	—			00132	Patient Death Date and Time
30	1	ID	—			00133	Patient Death Indicator

Field Notes:

- 3 Patient ID (Internal ID)
visit.mrnum
When the interface ID is RehabOptima, NetSolutions appends ^^^HR^ to the end of the health record number in PID-3 for outbound messages, as required by the 2.3 HL7 standard.
- 5 Patient Name
resident.last-name, etc
- 6 Mother's Maiden Name
resident.mother-name (may or may not be maiden name depending on what user enters)
- 7 Date of Birth
resident.date-of-birth
- 8 Sex
resident.sex - translate O to U on inbound
- 10 Race
race.hl7-id of resident
- 11 Patient Address
resident.adress-1, etc

- 12 County Code
county.hl7-id of resident^county.description
- 13 Phone Number - Home
resident.phone
- 15 Language – Patient
Code-list.map-id of Resident.prim-lang^ Code-list.code-text of Resident.prim-lang
- 16 Marital Status
resident.marital - translate A to X
A - Separated
C - Couple
D - Divorced
M - Married
S - Single
U - Unknown
W - Widowed
- 17 Religion
religion.hl7-id of resident
- 18 Patient Account Number
account.account-code
- 19 SSN Number - Patient
resident.ssn
When NetSolutions processes incoming messages it indicates a missing social security number by placing a null in this field.
- 23 Birthplace
resident.birthplace
- 26 Citizenship
citizenship.hl7-id
- 29 Patient Death Date and Time
Visit discharge date and time if federal discharge code indicates resident is expired.
- 30 Patient Death Indicator
Y if federal discharge code indicates resident is expired otherwise N.

PRA - Practitioner

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	20	ST	R			00685	PRA - primary key value
2	60	CE		Y		00686	Practitioner group
3	3	ID		Y		00687	Practitioner Category
4	1	ID			0186	00688	Provider Billing
5	100	CM		Y	0187	00689	Specialty
6	100	CM	—	Y		00690	Practitioner ID Numbers
7	200	CM		Y		00691	Privileges

Field Notes:

- 1 PRA - primary key value
physician.upin
- 6 Practitioner ID Numbers
format is number^type^state
ignore last component (state)
repeating field separated by ~

use UPIN, MCR, MCD, LIC, and NPI for UPIN, Medicare, Medicaid, license, and National Provider ID

example:

physician.license-num^LIC~physician.upin^UPIN~physician.medicaid-num^MCD~physician.medicare-num^MCR~NPI^physician.npi

PV1 - Visit

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI				00131	Set ID - Patient Visit
2	1	ID	R		0004	00132	Patient Class
3	12	CM	—			00133	Assigned Patient Location
4	2	ID	—		0007	00134	Admission Type
5	20	ST				00135	Preadmit Number
6	12	CM				00136	Prior Patient Location
7	60	CN	—		0010	00137	Attending Doctor
8	60	CN	—		0010	00138	Referring Doctor
9	60	CN	—	Y	0010	00139	Consulting Doctor
10	3	ID	—		0069	00140	Hospital Service
11	12	CM			0079	00141	Temporary Location
12	2	ID			0087	00142	Preadmit Test Indicator
13	2	ID	—		0092	00143	Readmission Indicator
14	3	ID	—		0023	00144	Admit Source
15	2	ID		Y	0009	00145	Ambulatory Status
16	2	ID			0099	00146	VIP Indicator
17	60	CN	—		0010	00147	Admitting Doctor
18	2	ID			0018	00148	Patient Type
19	15	NM				00149	Visit Number
20	50	CM	—	Y/4	0064	00150	Financial Class
21	2	ID			0032	00151	Charge Price Indicator
22	2	ID			0045	00152	Courtesy Code
23	2	ID			0046	00153	Credit Rating
24	2	ID		Y	0044	00154	Contract Code
25	8	DT		Y		00155	Contract Effective Date
26	12	NM		Y		00156	Contract Amount
27	3	NM		Y		00157	Contract Period
28	2	ID			0073	00158	Interest Code
29	1	ID			0110	00159	Transfer to Bad Debt Code
30	8	DT				00160	Transfer to Bad Debt Date
31	10	ID			0021	00161	Bad Debt Agency Code
32	12	NM				00162	Bad Debt Transfer Amount
33	12	NM				00163	Bad Debt Recovery Amount
34	1	ID			0111	00164	Delete Account Indicator
35	8	DT				00165	Delete Account Date
36	3	ID	—		0112	00166	Discharge Disposition
37	25	CM	—		0113	00167	Discharged to Location
38	2	ID			0114	00168	Diet Type
39	2	ID			0115	00169	Servicing Facility
40	1	ID			0116	00170	Bed Status
41	2	ID			0117	00171	Account Status
42	12	CM	—			00172	Pending Location
43	12	CM				00173	Prior Temporary Location

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SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
44	26	TS	—			00174	Admit Date/Time
45	26	TS	—			00175	Discharge Date/Time
46	12	NM				00176	Current Patient Balance
47	12	NM				00177	Total Charges
48	12	NM				00178	Total Adjustments
49	12	NM				00179	Total Payments
50	20	CM			xxxx	00180	Alternate Visit ID

General Notes:

HL7 does not define the size of the unit, room and bed fields of the various resident location fields. The field sizes of these components are user-defined in Resident Accounting and should easily be mapped to any foreign system's requirements.

If the incoming HL7 message has a Physician ID with more than 7 components and the 8th component is blank, NetSolutions defaults the ID type to UPIN and processes the physician based on UPIN.

Send "" for any blank components.

Field Notes:

- 2 Resident Class:
I=in O=out P=preadmit
- 3 Assigned Resident Location:
bed.bed-name of visit - format " Building + Station^Room^Bed" where Building + Station is a concatenation of the two text values.
The lengths of the component fields are controlled by the Area Unit Room Bed position and lengths in the Facility General Parameters page. For incoming messages the system separates the Building+Station into its fields based on the Area and Unit position and lengths.
- 4 Admission Type:
admtype.hl7-id of visit.admission-type
- 7 Attending Doctor:
physician.upin,name of vis-phy - format "id^last^first^middle^suffix^title^degree^id type"
Notes:
 - NetSolutions does not use the *degree* portion.
 - *id type* can be either an NPI or UPIN. If this portion is left blank, NetSolutions assumes UPIN.
- 8 Referring Doctor:
physician.upin,name of vis-phy - format "id^last^first^middle^suffix^title^degree^id type"
Notes:
 - NetSolutions does not use the *degree* portion.
 - *id type* can be either an NPI or UPIN. If this portion is left blank, NetSolutions assumes UPIN.
- 9 Consulting Doctor:
physician.upin of vis-phy format "id^last^first^middle^suffix^title^degree^id type"
Notes:
 - NetSolutions does not use the *degree* portion.
 - *id type* can be either an NPI or UPIN. If this portion is left blank, NetSolutions assumes UPIN.
- 10 Medical Service:
business-unit.hl7-id of visit.bu-pl

13 Re-Admission indicator:

value 'R' if this is a readmission

14 Admit source:

admsource.hl7-id of visit.admission-source

17 Admitting Doctor:

physician.upin,name of vis-phy - format "id^last^first^middle^suffix^title^degree^id type"

Notes:

- NetSolutions does not use the *degree* portion.
- *id type* can be either an NPI or UPIN. If this portion is left blank, NetSolutions assumes UPIN.

19 Visit Number:

- In a one-way interface originating from NetSolutions, the value of PV1-19 will be the NetSolutions visit code from visit.visit_code in the form 10818^^E (E indicates the value is external to the receiving system).
- In two-way interfaces where the registration was created by an incoming A01/A04/A05 with a PV1-19 value present, NetSolutions returns the external system's original value as 1939^^I (I indicates the value is internal to the receiving system).
NetSolutions maintains a cross-walk of received numbers to its internally generated visit_code values, and returns the cross-walked value when available. If no cross-walk value is present for the visit_code, then the NetSolutions value is returned in the form 10818^^E.

20 Financial class:

values: Medicare, Medicaid, Commercial, Private, Guarantor

format "class^effective date". Class in user defined table 64. Up to 4 occurrences.

36 Discharge disposition:

dschrcode.mds_value of visit.federal_discharge_code

User defined table 112.

37 Discharge to location:

visit.discharge-destination

User defined table 113.

42 Pending Location:

bed.bed-name of future dated visitseg of visit

44 Admit Date/Time:

visit.admit-date, visit.admit-time

45 Discharge Date/Time:

visit.discharge-date, visit.discharge-time

PV2 - Visit 2

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	12	CM				00181	Prior Pending Location
2	60	CE			0129	00182	Accommodation Code
3	60	CE				00183	Admit Reason
4	60	CE				00184	Transfer Reason
5	25	ST		Y		00185	Patient Valuables
6	25	ST				00186	Patient Valuables Location
7	2	ID			0130	00187	Visit User Code
8	8	DT				00188	Expected Admit Date
9	8	DT				00189	Expected Discharge Date

General Notes:

This segment is sent on A01 and A04 events only for integration with Keane clinical systems which require an admit reason. The first diagnosis description is used since RAM does not carry a separate field for this. If no diagnoses are entered, then blank is sent. The segment is not processed on inbound ADT events.

Field Notes:

- 3 Admit Reason:
lcd9.description of first diagnoses record for visit

QRD - Query

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM #	ELEMENT NAME
1	26	TS	R			00025	Query Date/Time
2	1	ID	R		0106	00026	Query Format Code
3	1	ID	R		0091	00027	Query Priority
4	10	ST	R			00028	Query ID
5	1	ID	O		0107	00029	Deferred Response Type
6	26	TS	O			00030	Deferred Response Date/Time
7	10	CQ	R		0126	00031	Quantity Limited Request
8	60	XCN	R	Y		00032	Who Subject Filter
9	60	CE	R	Y	0048	00033	What Subject Filter
10	60	CE	R	Y		00034	What Department Data Code
11	20	CM	O	Y		00035	What Data Code Value Qual.
12	1	ID	O		0108	00036	Query Results Level

General Notes:

The QRD segment is used to define a query.

Field Notes:

- 1 Query date/time
date the query was generated by the application program
- 2 Query format code
D = Response is in display format
- 3 Query priority
The time frame in which the response is expected. Values come from *HL7 table 0091*.
I = Immediate
- 4 Query ID
A unique identifier for the query. Assigned by the querying application. Returned intact by the responding application.
- 5 Deferred response type
This optional field will be ignored. Values come from *HL7 table 0107*.
- 6 Deferred response date/time
This optional field will be ignored. The date/time before or after which to send a deferred response.
- 7 Quantity limited request
Unit values come from *HL7 table 0126*. 1^LI means one line.
- 8 Who subject filter
identifies the subject, or who the inquiry is about.
<Medical Record Number> ^ <Last name> ^ <first name> ^ <middle initial>
- 9 What subject filter
Describes the kind of information that is required to satisfy the request. Values come from *HL7 table 0048*.
'ZAN' will be used to request the account number associated with the resident.
'ZBU' will be used to request the Business Unit associated with the bed the resident is in.
- 10 What department data code
This field will be empty.
- 11 What data code value qualifier
Optional date value (in hl7 format). Used to find the account code or business unit for a specific date. If a date is not specified, the account code or business unit as of the current date (or last discharge if resident is discharged) is returned.

12 Query results level

This optional field will be ignored. It is used to control level of detail in results. Refer to *HL7 table 0108 - Query results level* for valid values.

STF - Staff identification

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	60	CE	R			00671	STF - primary key value
2	60	CE		Y		00672	Staff ID Code
3	48	PN	—			00673	Staff Name
4	2	ID	—	Y	0182	00674	Staff Type
5	1	ID			0001	00111	Sex
6	8	DT				00110	Date of Birth
7	1	ID			0183	00675	Active/inactive
8	200	CE		Y	0184	00676	Department
9	200	CE		Y		00677	Service
10	40	TN	—	Y		00678	Phone
11	106	AD	—	Y/2		00679	Office/Home Address
12	26	CM		Y		00680	Activation Date
13	26	CM		Y		00681	Inactivation Date
14	60	CE		Y		00682	Backup Person ID
15	40	ST		Y		00683	E-mail Address
16	1	ID		Y	0185	00684	Preferred PhoneMethod of Contact

Field Notes:

- 1 STF - Primary Key Value
physician.upin
- 3 Staff Name
physician.last-name, physician.first-name physician.middle,...
- 4 Staff Type
physician.hl7-type one of
"PHY", "THE", "DEN", "POD"
- 10 Phone
physician.phone
- 11 Office/home address
physician.address-1,...

TXA - Transcription documentation

TXA Segment Transcription Documentation

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI	R			00914	Set ID- TXA
2	30	IS	R		0270	00915	Document Type
3	2	ID	C		0191	00916	Document Content Presentation
4	26	TS	O			00917	Activity Date/Time
5	60	XCN	C	Y		00918	Primary Activity Provider Code/Name
6	26	TS	O			00919	Origination Date/Time
7	26	TS	C			00920	Transcription Date/Time
8	26	TS	O	Y		00921	Edit Date/Time
9	60	XCN	O	Y		00922	Originator Code/Name
10	60	XC	O	Y		00923	Assigned Document Authenticator
11	48	XCN	C	Y		00924	Transcriptionist Code/Name
12	30	EI	R			00925	Unique Document Number
13	30	EI	C			00926	Parent Document Number
14	22	EI	O	Y		00216	Placer Order Number
15	22	EI	O			00217	Filler Order Number
16	30	ST	O			00927	Unique Document File Name
17	2	ID	R		0271	00928	Document Completion Status

Field Notes:

NetSolutions uses an abbreviated TXA segment.

TXA-1: Always 1

TXA-2: CCD

TXA-12: ccd_history.ccd_snbr^CN

TXA-17: AU

Z01 - RAM/Clinical visit information

SEQ	LEN	DT	R/O	RP/#	TBL #	ITEM#	ELEMENT NAME
1	1	ST					Pay Day of Discharge

Field Notes:

1 Pay Day of Discharge indicator

If day of discharge is paid for then 'Y' else 'N'.

Note: When using the Z01 message to communicate more than the pay day of discharge indicator (like hospital stay information), the pay day of discharge indicator will be null.

ZAP - Account-Plan information

The ZAP and associated segments (ZAG, ZAL, ZAX, and ZRD) are used to transmit reimbursement table information. They are included in any HL7 message that includes an IN1 segment. (Note: The ZAP and associated segments are not included in VistaKEANE RAM/Clinical interface messages. It may make the HL7 message too long for the Clinical import to handle and the Clinical application does not process them anyway.)

SEQ	LEN	DT	R/O	RP/#	TBL #	ITEM#	ELEMENT NAME
1		N					Account Code
2		M					Internal ID (accp-code)
3		N					Assign Benefits Indicator
4		M					Billed Thru Date
5		ST					Days Left
6		DT					Days Left date
7		N					Days-used-at-admit
8		M					Deductible date
9		DT					Deductible paid
10		N					Dollars left
11		M					Dollars-used-at-admit
12		DT					Employer address
13		N					Employer city
14		M					Employer name
15		N					Employer state
16		M					Employer Zip
17		N					Employment Status
18		M					Plan End Date
19		ST					Group name
20		ST					Group number
21		ST					Policy Holder Address-1
22		ST					Policy Holder Address-2
23		ST					Policy Holder City

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[illegible]

SEQ	LEN	DT	R/O	RP/#	TBL #	ITEM#	ELEMENT NAME
		ST					

General Notes:

One ZAP per acc-plan record in the reimbursement table. ZAP-39 (sequence) determines the order. The ZAG, ZAL, ZAX, and ZRD segments associated with the acc-plan follow the ZAP (in that order).

Field Notes:

- 1 Resident Account
acc-plan.account-code
- 2 Internal ID of Account Plan.
acc-plan.accp-code
- 3 Assign Benefits Indicator
"Y" or "N"
- 4 Billed Thru Date
acc-plan.billed-thru
- 5 Days Left
acc-plan.days-left
- 6 Days Left Date
acc-plan.days-left-date
- 7 Days used at admit
acc-plan.days-used-at-admit
- 8 Deductible Date
acc-plan.deductible-date
- 9 Deductible Paid
acc-plan.deductible-paid
- 10 Dollars Left
acc-plan.dollars-left
- 11 Dollars used at admit
acc-plan.dollars-used-at-admit
- 18 Plan End Date
acc-plan.end-date
- Plan Inactivated Date
acc-plan.inactivated-date
- 37 Relation to Policy Holder
acc-plan.relation-to-holder
- 38 Release Info Indicator
acc-plan.release-info-ind
- 39 Sequence
acc-plan.sequence
- 40 Plan Start Date
acc-plan.start-date
- 41 Kept Apt days used at admit
acc-plan.kapt-days-used-at-admit
- 42 Anniversary Date
acc-plan.anniversary-date
- 43 Void Indicator
if acc-plan.void then 'Y' else 'N'
- 44 Spell End Date
acc-plan.spell-end-date = " then "" else v-accp-spell-end-dtm)

- 48 New Spell Indicator
If hospital stay is a new spell then "Y" else "N"
- 50 Visit Admit Date
Admit date of visit the hospital stay is associated with.
- 51 Original Sequence
If sequence of plan has been changed, this is what it was.
- 52 Bills Thru Date
acc-plan.bills-thru
- 53 Employment Information Data
acc-plan.employment-info
- 54 Policy Holder Email Address
acc-plan.holder-email
- 55 Policy Holder phone1
acc-plan.holder-phone1
- 56 Policy Holder phone1 type
"home", "work/office", "fax", "cell", "pager", "modem", "other" (acc-plan.holder-phone1-type)
- 57 Policy Holder phone2
acc-plan.holder-phone2
- 58 Policy Holder phone2 type
"home", "work/office", "fax", "cell", "pager", "modem", "other" (acc-plan.holder-phone2-type)
- 59 Policy Holder phone3
acc-plan.holder-phone3
- 60 Policy Holder phone3 type
"home", "work/office", "fax", "cell", "pager", "modem", "other" (acc-plan.holder-phone3-type)
- 61 Policy Holder phone4
acc-plan.holder-phone4
- 62 Policy Holder phone4 type
"home", "work/office", "fax", "cell", "pager", "modem", "other" (acc-plan.holder-phone4-type)
- 63 Policy Holder phone5
acc-plan.holder-phone5
- 64 Policy Holder phone5 type
"home", "work/office", "fax", "cell", "pager", "modem", "other" (acc-plan.holder-phone5-type)
- 65 ANSI Individual Relationship Code
acc-plan.individual-relationship-code
- 66 Policy Signature Source Code
acc-plan.patient-signature-source-code
- 67 future-use
acc-plan.future-use

ZAG - Account-Plan-Seg information

Error! Bookmark not defined. SEQ	LEN	DT	R/O	RP/#	TBL #	ITEM#	ELEMENT NAME

Error! Book mark not defined. SEQ	LEN	DT	R/O	RP/#	TBL #	ITEM#	ELEMENT NAME
1		ST					Set ID
2		N					Account Code
3		M					Co-Insurer
4		ST					Copayor Revenue Indicator
5		ST					End Date
6		DT					Plan Description
7		ST					Private Portion
8		N					Reimbursement Rate
9		M					Reimbursement Unit
10		N					Start Date
11		M					Treatment Authorization Code
12		ST					Deductible Plan
13		DT					Over Max Limit Plan
14		ST					Under Min Limit Plan
15		ST					Level
16		ST					Coinsurance Rate
17		ST					Coinsurance Unit
18		ST					Authorized By
19							Deductible Payor
20		ST					Resource Amount
21							Future Use
22							Admit Date Override
		ST					
		DT					

General Notes:

One ZAG per acc-plan-seg record associated with the acc-plan.

Field Notes:

- 1 Set Id
start with 1 increment by 1 for each additional segment
- 2 Resident Account
acc-plan.account-code
- 3 Co-Insurer
Plan Description of co-insurer. Blank if no co-insurer.
- 4 Co-payor Revenue Indicator
If acc-plan-seg.copayor-revenue = yes then 'Y' else 'N'.
- 5 End Date
End date of segment
- 6 Plan Description
Plan description of associated plan.
- 10 Start Date
Start date of segment.

12 Deductible Plan

Plan description of deductible plan. Blank if not deductible plan.

13 Over Max Limit Plan

Plan description of over maximum limit plan.

14 Under Min Limit Plan

Plan description of under minimum limit plan.

15 Level

If plan is equiv exempt, then plan level assigned to the plan.

22 Admit Date Override

If plan set to override admit date this is a new admit date

ZAL - Account-Plan-Split information

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1		ST					Set ID
2		N					Internal ID (accp-code)
3		M					Portion Amount
4		N					Portion Type
5		M					Plan Description
6		ST					Sequence
7		ST					future-use
		N					
		M					
		ST					

General Notes:

One ZAL per acc-plan-split record associated with the acc-plan.

Field Notes:

- 1 Set Id
start with 1 increment by 1 for each additional segment
- 2 Internal ID of associated Account Plan.
accp-code of associated acc-plan
- 3 Portion Amount
acc-plan-split.portion amount
- 4 Portion Type
"F" if fund portion, "P" if private portion
- 5 Plan Description
If private portion split, plan description of plan.
- 6 Sequence
acc-plan-split.sequence
- 7 future-use
acc-plan-split.future-use

ZAX - Account-Plan private portion trx information

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1		ST					Set ID
2		N					Account Code
3		M					Plan Description
4		ST					Private Portion
5		N					Start Date
6		M					Transaction Date
		DT					
		DT					

General Notes:

One ZAX per priv-port-trx associated with the account and plan.

Field Notes:

- 1 Set Id
start with 1 increment by 1 for each additional segment
- 2 Resident Account
acc-plan.account-code
- 3 Plan Description
Plan description of associated plan.
- 4 Private Portion
Private portion amount.
- 5 Start Date
priv-port-trx.start-date.
- 6 Transaction Date
priv-port-trx.trx-date

ZC1 - HIE consent information

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	2	ST	R				HIE Consent
2	8	Dt	O				Consent Date

General Notes:

The ZC1 segment is part of an A01, A04 and A05 message. It also triggers the creation of an A08 message with the ZC1 segment also included in that message.

Field Notes:

- 1 HIE Consent
Y (Accepted), N (Declined) or NA (Not Asked)
- 2 Consent Date
The date the consent form was signed by the resident.

ZGT - Additional guarantor information

The ZGT segment includes additional guarantor information not included in the GT1 segment.

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI	R				Set ID - set id of associated GT1 segment
2	1	ST					Notify In Case Of Emergency
3	1	ST					Notify In Case Of Death
4	1	ST					Print Statement

Field Notes:

- Set ID
must match the set id of the associated GT1 segment.
- Notify In Case Of Emergency
guarantor.notify-emergency; "Y" for yes "N" for no.
- Notify In Case Of Death
guarantor.notify-death; "Y" for yes, "N" for no.
- Print Statement
guarantor.statement-ind; "Y" for yes "N" for no.

ZHS - Hospital stay information

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI					Set ID - Hospital Stay
2	7	N					RAM ID
3		M					Hospital Admit Date
4		DT					Hospital Discharge Date
5	50	DT					Hospital Name
6	1	ST					New spell of illness indicator
7	16	ST					Hospital Provider Number

Field Notes:

- Set ID - Hospital Stay
increment by 1 for each hospital stay.
- RAM ID for Hospital Stay
The unique internal code given to the hospital stay record when created in RAM.
- Hospital Admit Date
hosp-stay.hospital-admit-date
- Hospital Discharge Date
hosp-stay.hospital-discharge-date
- Hospital Name
hosp-stay.hospital-name

- 6 New spell of illness
if hosp-stay.new-spell = yes then "Y" else "N"
- 7 Hospital Provider Number
hosp-stay.provider-num

The system sends ZHS|""<CR> if there are no hospital stay records. The system deletes all hospital stays if that segment is the only one received.

ZNK - Additional contact information

The ZNK segment includes additional contact information not included in the NK1 segment.

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI	R				Set ID - set id of associated NK1 segment
2	1	ST					Notify In Case Of Emergency
3	1	ST					Notify In Case Of Death
4	1	ST					Print Statement

Field Notes:

- 1 Set ID
must match the set id of the associated NK1 segment.
- 2 Notify In Case Of Emergency
contact.notify-emergency; "Y" for yes "N" for no.
- 3 Notify In Case Of Death
contact.notify-death; "Y" for yes, "N" for no.
- 4 Print Statement
contact.statement-ind; "Y" for yes "N" for no.

ZOV - Original visit information

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	14	TS					The visit's original admit date and time
2	14	TS					The visit's new admit date and time
3		ST					The visit's new override bed rate

Field Notes:

- 1 Original admit date and time
- 2 New admit date and time
- 3 New Override Rate
Override Amount ^Override Unit for the bed order associated with this Event.

ZP1 - Additional patient information

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1		ST					Primary payer
2		ID					Education
3		ST					Occupation
4		ST					English Speaking Ability
20		ST					Part D Plan Info
21		ST					Resident Control Number

Field Notes:

- 1 Primary payer: HL7 id of the visit's primary plan for the given message date
For vclin interfaces this is hl7 id^end date~hl7 id^end date~...~hl7 id
- 2 Education: HL7 id of resident.education
- 3 Occupation: resident.occupation
- 4 English Speaking Ability: resident.lang-ability ("none","poor","fair","good","excellent")
- 20 Part D Plan Info: state code^plan description^effective date^resident plan ID. State code is ZZ for federal plans
- 21 Resident Control Number: resident.rcn – internal resident number

ZPV - Additional visit information

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1		ST					OBSOLETE: Hospital Provider Num
2		DT					OBSOLETE: Hospital Admit Date
3		DT					OBSOLETE: Hospital Discharge Date
4		ST					OBSOLETE: Hospital Name
5	10	ST					Visit User Field 1
6	10	ST					Visit User Field 2
7	20	ST					Visit User Field 3
8	20	ST					Visit User Field 4
9	30	ST					Visit User Field 5
10	30	ST					Visit Source Description
11	8	DT					Account Start Date
12							Order Override Amount
13	30	ST					Discharge Destination Description
14	3	ID					State Discharge HL7 id
15	16	ST					Discharge Provider Number
16	8	ST					Hold Reason
17		ST					OBSOLETE: Hold Provider Number
18	60	CN					Operating Physician
19	60	CN					Physical Therapist
20	10	ST					Arrived By
21	3	ST					State Admit Source
22	1	ST					Hold Type
23	60	CN					Ophthalmologist Physician
24	60	CN					Occupational Therapist

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
25	60	CN					Speech Therapist
26	30	ST					Visit User Field 6

Field Notes:

- 1 – 4 Formerly hospital information fields. These are no longer used. They are superseded by ZHS information.
- 5 – 9 User fields from the visit record
visit.user1, visit.user2, visit.user3, visit.user4, visit.user5
- 10 Visit Source Description
visit-source.description for the visit.source-code
- 11 Account Start Date
account.start-date format yyyymmdd
- 12 Order Override Amount
Override Rate, if any, for the bed order associated with this Event.
- 13 Discharge Destination Description
Visit-dest.description for visit-dest.dest-code that matches visit.dest-code
- 14 State Discharge HL7 ID
dschcode.hl7-id for the dschcode.discharge-code that matches visit.state-discharge-code
- 15 Discharge Provider Number
visit.discharge-provider-num
- 16 Hold Reason
visitseg.hold-reason
- 17 No Longer Used
- 18 Operating Physician
physician.upin,name of vis-phy - format "physician upin id^ last^first^mi"
- 19 Physical Therapist
physician.upin,name of vis-phy - format "physician upin id^ last^first^mi" (repeating)
- 20 Arrived By
Visit.arrived-by
- 21 State Admit Source
admsource.hl7-id of visit.state-admission-source
- 22 Hold Type
RAM sends "H" or "P" depending on the hold. RAM translates the VistaKEANE Clinical (VC) hold types as follows:
VC value of F → RAM's H
VC value of L or H → RAM's P
- 23 Ophthalmologist Physician
physician.upin,name of vis-phy - format "physician upin id^ last^first^mi"
- 24 Occupational Therapist
physician.upin,name of vis-phy - format "physician upin id^ last^first^mi" (repeating)
- 25 Speech Therapist
physician.upin,name of vis-phy - format "physician upin id^ last^first^mi" (repeating)

ZR1 - Resident information

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	15	ST					Occupation
2	156	ST					Church
3	156	ST					Pharmacy
4	156	ST					Mortuary
5	60	CN					Alternate Physician
6	60	CN					Dentist
7	60	CN					Podiatrist
8	10	CN					Clinical LOC
9	44	ST					Financial LOC

Field Notes:

- 1 Occupation
resident.occupation
- 2 Church
resident.church – org-name^addr1^city^state^zip^phone^contact name
- 3 Pharmacy
resident.pharmacy - org-name^addr1^city^state^zip^phone^contact name
- 4 Mortuary
resident.funeral-home - org-name^addr1^city^state^zip^phone^contact name
- 5 Alternate Phy
physician.upin,name of vis-phy - format “physician id^ last^first^mi”
- 6 Dentist
physician.upin,name of vis-phy - format “physician id^ last^first^mi”
- 7 Podiatrist
physician.upin,name of vis-phy - format “physician id^ last^first^mi”
- 8 Clinical LOC
input data element - store in new field visit.clin-loc
- 9 Fin LOC
payor-level.level-name of visit for primary plan ^ visitseg.equiv

ZR2 - More resident information

(fields not captured elsewhere)

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	10	ST	O				Code Status
2	40	ST	O				Father's name
3	30	ST	O				Medicaid number
4	14	ST	O				Medicare number
5	40	ST	O				Mother's name
6	30	ST	O				Other ID number
7	50	ST	O				Resident user field 1
8	50	ST	O				Resident user field 2

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
9	50	ST	O				Resident user field 3
10	50	ST	O				Resident user field 4
11	50	ST	O				Resident user field 5
12	1	ST	O				Veteran Status
13	30	ST	O				Welfare number
14	156	ST	O				Ambulance Service
15	40	ST	O				Spouse's name
16	1	ST	O				Resident statement indicator

Field Notes:

12 Veteran Status

"Y" or blank

14 Ambulance Service

resident.ambulance - org-name^addr1^city^state^zip^phone^contact name

ZR3 - RUGS III Assessment

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	8	DT	R				Reference Date
2	3	ST	O				RUGIII Score
3	1	ST	O				Type
4	1	ST	O				Frequency
5	2	ST	O				Modifier
6	2	CD	O				Assessment Status
7	8	DT	O				Census From Date
8	8	DT	O				Census To Date
9	5	ST	O				Tracking Number ATN
10	2	ST	O				Sequence Number ASN
11	2	ST	O				Action

Field Notes:

1 Reference Date

The reference date for the assessment

2 RUGIII Score

One of the HCFA defined RUG III codes

3 Type

A single number indicating the type of assessment (full, comprehensive,...) from question AA8A of the MDS 2.0 assessment.

4 Frequency

A single number indicating which period the assessment is for (5 day, 14 day...) from question AA8B of the MDS 2.0 assessment.

5 Modifier

The HIPPS modifier. When this field is present, the Type and Frequency will be ignored and not required. Blank for Inactivation record.

6 Assessment Status

This value identifies the status of the assessment using a code: 5 = Final assessment; all other values = Interim.

7 Census From Date

- 8 Census To Date
- 9 Tracking Number ATN
Assessment Tracking Number assigned by Clinical product. Modifications and Inactivations have the same ATN.
- 10 Sequence Number
HCFA defined number assigned to Modifications and Inactivations. Blank for original assessments; 1-99 for Inactivations and Modifications.
- 11 Action
Code indicating deleted and/or inactivated assessments.
"D" = deleted, "I" = inactivated, "DI" = delete Inactivated record, blank for all other cases.

ZR4 - RUGS IV Assessment

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	8	DT	R				Entry/Reentry date
2	8	DT	R				Reference Date
3	7	ST	R				RUG IV Score Rehab
4	7	ST	R				RUG IV Score non-Rehab
5	2	ST	O				Assessment Status
6	8	DT	O				Therapy Start Date
7	8	DT	O				Therapy End Date
8	2	ST	O				Federal OBRA Reason for Assessment
9	2	ST	O				PPS Assessment
10	1	ST	O				PPS Other Medicare Required
							Assessment –OMRA
11	11	ST	R				Unique MDS identifier
12	14	ST	O				Correction number^Unique MDS identifier
13	2	ST	O				Action
14	1	ST	O				Version
15	20	ST	O				Billing Periods for Keane PatCom interface only
16	8	DT	O				Medicare stay start date
17	8	DT	O				Medicare stay end date
18	8	DT	O				Resumption of Therapy

Field Notes:

- 1 Entry/reentry date—YYYYMMDD
The entry/reentry date from the assessment (A1600)
- 2 Reference Date—YYYYMMDD
The reference date for the assessment (A2300)
- 3 RUGIV Score Rehab
One of the HCFA defined RUG IV codes (Z0100A), which includes the modifier.
- 4 RUGIV Score non-Rehab
One of the HCFA defined RUG IV codes (Z0150A), which includes the modifier.
- 5 Assessment Status
Active –Assessment _status <> 14 AND Assessment _status < 90
Inactivation –Assessment _status = 14
- 6 Therapy Start Date – YYYYMMDD
Send the earliest date from O0400A5, O0400B5, or O0400C5

- 7 Therapy End Date – YYYYMMDD
Send the latest date from O0400A6, O0400B6, or O0400C6. Or if one of the mentioned fields has 8 dashes then no date should be sent. The 8 dashes indicate that therapy is continuing in that discipline.
- 8 Federal OBRA Reason for Assessment (A0310A)
- 9 PPS Assessment (A0310B)
- 10 PPS Other Medicare Required Assessment –OMRA (A0310C)
- 11 Unique MDS identifier
MDS_snbr
- 12 Correction number ^Unique MDS identifier
Correction number = X0800
Unique MDS identifier = MDS_snbr of the corrected assessment
(Attested_MDS_snbr)
- 13 Action Code indicating inactivation assessment.
I = Inactivation, blank for all other cases.
- 14 Version 3 = MDS 3.0
- 15 Billing Periods For outbound PatCom interface only
MMDDYYYY^MMDDYYYY^##
- 16 Medicare stay start date – YYYYMMDD
Start date of most recent Medicare stay (A2400B)
- 17 Medicare stay end date
End date of most recent Medicare stay (A2400C)
- 18 Resumption of Therapy
Date that Therapy restarted (O0450B)

For the PatCom interface Billing Periods

For standard PPS assessments, A310A would equal 1 or 99 and A310B would be 1-6. The AI portion of the HIPPS code would be: first digit 1-5 and the second digit would be 0 (zero)

ZR5 - PDPM Assessment

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1	8	DT	R				Entry/Reentry date
2	8	DT	R				Reference Date
3	7	ST	R				PDPM HIPPS code
4	2	ST	O				Assessment Status
5	2	ST	O				Federal OBRA Reason for Assessment
6	2	ST	O				PPS Assessment
7	11	ST	R				Unique MDS identifier
8	14	ST	O				Correction number^Unique MDS identifier
9	2	ST	O				Action
10	1	ST	O				Version
11	8	ID	O				Primary ICD Code

Field Notes:

- 1 Entry/reentry date—YYYYMMDD
The entry/reentry date from the assessment (A1600)
- 2 Reference Date—YYYYMMDD
The reference date for the assessment (A2300)

- 4 PDPM HIPPS Code
One of the HCFA defined PDPM HIPPS codes (Z0100A), which includes the modifier.
- 5 Federal OBRA Reason for Assessment (A0310A)
- 6 PPS Assessment (A0310B)
- 7 Unique MDS identifier
MDS snbr
- 8 Correction number ^Unique MDS identifier
Correction number = X0800; Unique MDS identifier = MDS_snbr of the corrected assessment; (Attested_MDS_snbr)
- 9 Action Code indicating inactivation assessment.
I = Inactivation, blank for all other cases.
- 10 Version 3 = MDS 3.0
- 11 Primary diagnosis code (I0020B)

ZRC - Insurance

This segment is used to identify primary payers by effective date. It is used in older Omnicare interfaces; later Omnicare interfaces use the IN1 segments instead.

SEQ	ELEMENT NAME	
1	Set ID - ZRC	Not used
2	Start Date	Start date plan is effective
3	End Date	Last date plan is effective
4	Patient Identifier List	HRNum^^^PN~account_code ^^FI
5	Assigned Patient Location	Not used
6	Admit Date	Not used
7	Plan(Type)	HL7 Plan ID
8	Policy(Number)	Not used
9	Guarantor(Name)	Not used
10	Guarantor(Address)	Not used
11	Guarantor Phone Number - Home	Not used
12	Guarantor(Relationship)	Not used
13	Insurance Company Name	Not used
14	Name of Insured	Not used
15	Level of Care	Y/N - Rx Paid by Facility

Field Notes:

- 3 End Date
This value is no longer sent to OmniCare.

ZRD - Account-Plan rolling date information

SEQ	LEN	DT	R/O	RP/#	TBL#	ITEM#	ELEMENT NAME
1		ST					Set ID
2		N					Resident Account
3		M					Internal ID (accp-code)
4		N					Sequence
5		M					Type of Limit
6		N					Anniversary Date
7		M					BillThru Date
8		ST					Plan Description
9		DT					Payor Shortname
10		DT					Quantity
11		ST					Level of Care
12		ST					Item Description
		N					
		M					
		ST					
		ST					

General Notes:

One ZRD per rolling-date record associated with the acc-plan.

Field Notes:

- 1 Set Id
start with 1 increment by 1 for each additional segment
- 2 Resident Account
acc-plan.account-code
- 3 Internal ID of associated Account Plan.
accp-code of associated acc-plan
- 4 Sequence
Rolling-date.sequence
- 5 Type of Limit
rolling-date.type
- 6 Anniversary Date
rolling-date.start-date
- 7 BillThru Date
rolling-date.billthru-date
- 8 Plan Description
Plan description of associated acc-plan.
- 9 Payor Shortname
Payor shortname of associated acc-plan.
- 10 Quantity
rolling-date.qty
- 11 Level of Care
rolling-date.level
- 12 Item Description
item.billing-description of associated item.

Example Admit Transaction

```
MSH|^~\|LS+RAM|MCM|MCHART|MCM|199308181126||ADT^A01|MSG00001|P|2.3|<cr>
EVN|A01|199308181123||<cr>
PID|||PATID1234^5^M11||JONES^WILLIAM^A^JR||19310615|M||C|1200 N ELM
  STREET^GREENSBORO^NC^27401-1020|GL|(919)379-1212|
  (919)271-3434|M||PATID12345001^2^M10|123456789|987654^NC|<cr>
NK1|1|JONES^BARBARA^K|WIFE|<cr>
PV1|||C^201^01|||004777^LEBAUER^SIDNEY^J.||SUR|||ADM|AO|<cr>
DG1|1|I9|41300||19941212181126|ADMIT|<cr>
DG1|2|I9|41302||19941212181126|ADMIT|<cr>
DG1|1|I10|50.22^Chronic systolic (congestive) heart
failure^I10||20150707000000|C|||N|||002|||""|<cr>
DG1|2|I10|J15.29^Pneumonia due to other
staphylococcus^I10||20150707000000|C|||N|||001|||""|<cr>
GT1|...|<cr>
ZR1|Plumber|St. Matthews|Rite-
Aid||12345^Watson^Tim|12929^James^Martha|02933^Roberts^Harold<cr>
```

The message header indicates:

- the HL7 recommended separators are being used
- this transaction is sent by the Leadership Plus Resident Accounting Application at the facility known within it's larger organization as MCM to the MasterChart application at the same facility
- the message was created August 8, 1993 at 11:26 am.
- this is an ADT message that has been assigned control number MSG00001 by the sending system
- this is an actual production [P] message based on HL7 version 2.3

The event segment indicates:

- this is an admit that occurred August 8, 1993 at 11:23 am.

The PID (resident identifier) segment indicates:

- internal resident ID is PATID1234 which has a check-digit= 9 using the Mod11 scheme
- the Resident is William A. Jones Jr., born June 15, 1931, male caucasian
- his address in Greensboro, North Carolina with county code= GL
- his home and business phone numbers
- he is married
- he is assigned billing account number PATID12345001, check digit 2, Mod10 scheme
- his SSN is 123-45-6789 and his North Carolina drivers license # is 987654

The next-of-kin segment indicates:

- his wife Barbara K. Jones

The visit segment indicates:

- there is a visit set ID of 1 and this is an inpatient visit
- the resident is in unit C room 201 bed 1.
- attending doctor is Sidney J. Lebauer (ID= 004777)
- resident is admitted to Geriatric service with ambulatory status= AO

The two diagnosis segments indicate the ICD9 diagnoses

The guarantor segment indicates guarantor information

The Resident Information segment indicates other resident information not carried by the HL7 standard

Example Financial Transaction

MSH|^~\&|PYXIS|RAM|RAM|BILLFAC|20010207121746||DFT^P03|EVM^020701121746|P|2.3||
PID|||1386|1386|JONES^MARTHA|||||||||||
PV1|||2E^124^2E|||||||||||
FT1|||20010207|20010207|V|270^GLOVE VINYL POWDER FREE
MED|||1|10|||||||BAAR^MARNE, CHRISTINA|^|

Resident Accounting Field Sizes and Datatypes

This table shows all Resident Accounting data fields that are involved in the interface, which segments they are used in and their field sizes. This table will be important during implementation since some of our fields sizes are larger than the HL7 standard - profiles must be setup to accommodate the interface field sizes. This table will also be useful for producers of interfacing systems in matching our fields to theirs.

Field Name	Segments	Data-type/Size
diagnoses.icd9-code	DG1	x(6)
icd9.icd9-description	DG1	x(40)
diagnoses.begin-date	DG1	standard HL7
payor.shortname	GT1,IN1	x(10)
payor.payor-name	GT1,IN1	x(40)
payor.address-1	GT1	x(30)
payor.address-2	GT1	x(30)
payor.city	GT1	x(25)
payor.state	GT1	x(2)
payor.zip-code	GT1	x(10)
payor.phone	GT1	9(10)
relation.relation	GT1	x(2)
resident.last-name	PID	x(20)
resident.first-name	PID	x(20)
resident.middle-initial	PID	x(1)
resident.name-modifier	PID	x(3)
resident.address-1, address-2, city, state, zip-code	PID	same as payor. fields
resident.phone	PID	9(10)
resident.date-of-birth	PID	standard HL7
resident.sex	PID	x(1)
resident.ssn	PID	9(9)
plan.hl7-id	IN1	x(8)
payor.payor-shortname	IN1,GT1	x(10) - HL7 limits to x(6) for IN1
resident.medicaid-num	IN1	x(30) - HL7 limits to 15

Field Name	Segments	Data-type/Size
resident.medicare-num	IN1	x(14)
acc-plan.group-number	IN1	x(17) - HL7 limits to 15
physician.upin	MFE,STA,PRA, PV1,ZR1	x(20)
kin.last-name,first-name,middle- initial, modifier, title	NK1	same as resident. fields
relation.relation	NK1	x(2)
kin.address-1, address2, city, state, zip-code	NK1	same as resident. fields
kin.phone-number	NK1	9(10)
visit.mrnum	PID	x(15)
race.hl7-id	PID	x(1)
county.hl7-id	PID	x(4)
resident.marital	PID	x(1)
religion.religion	PID	x(3)
account.account-code	PID	9(9)
resident.ssn	PID	9(9)
physician.license-num	PRA	x(20)
physician.medicaid-num	PRA	x(20)
physician.medicare-num	PRA	x(20)
bed.bed-name	PV1	x(10) - unit, room, bed field sizes user-defined within the 10
admtypes.hl7-id	PV1	x(1)
business-unit.hl7-id	PV1	x(3)
admsrc.hl7-id	PV1	x(3)
dschrcode.hl7-id	PV1	x(3)
visit.discharge-destination	PV1	x(15) - free text
visit.admit-date	PV1	standard HL7
visit.discharge-date, visit.discharge-time	PV1	standard HL7
physician.physician-last	STF	x(20)
physician.physician-first	STF	x(15)
physician.physician-middle	STF	x(1)
physician.phone	STF	9(10)

Field Name	Segments	Data-type/Size
physician.address-1, address-2, city, state, zip-code	STF	same as resident fields
resident.occupation	ZR1	x(15)
resident.church	ZR1	x(25)
resident.funeral-home	ZR1	x(30)
resident.pharmacy	ZR1	x(25)

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