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# Delimiters

In constructing a message, certain special characters are used. They are the segment terminator, the field separator, the component separator, subcomponent separator, repetition separator, and escape character. The segment terminator is always a carriage return (in ASCII, a hex 0D). The other delimiters are defined in the MSH segment, with the field delimiter in the 4th character position, and the other delimiters occurring as in the field called Encoding Characters, which is the first field after the segment ID. The delimiter values used in the MSH segment are the delimiter values used throughout the entire message. In the absence of other considerations, HL7 recommends the suggested values found in *Figure 1: Delimiter values*.

At any given site, the subset of the possible delimiters may be limited by negotiations between applications. This implies that the receiving applications will use the agreed upon delimiters, as they appear in the Message Header segment (MSH), to parse the message.

Figure 1: Delimiter values

|  |  |  |  |
| --- | --- | --- | --- |
| Delimiter | Suggested Value | Encoding Character Position | Usage |
| Segment Terminator | <cr> (hex 0D) | - | Terminates a segment record. This value cannot be changed by implementors. |
| Field Separator | | | - | Separates two adjacent data fields within a segment. It also separates the segment ID from the first data field in each segment. |
| Component Separator | ^ | 1 | Separates adjacent comp­onents of data fields where allowed. |
| Subcomponent Separator | ¥ | 4 | Separates adjacent subcomp­onents of data fields where allowed. If there are no subcomponents, this character may be omitted. |
| Repetition Separator | ~ | 2 | Separates multiple occurrences of a field where allowed. |
| Escape Character | \ | 3 | Escape character for use with any field represented by an ST, TX or FT data type, or for use with the data (fourth) component of the ED data type If no escape characters are used in a message, this character may be omitted. However, it must be present if subcomponents are used in the message. |
| CSS Internal Delimiter |  |  |  |
| Segment ID Separator | ¤ | 1 |  |
| Value/Component Separator | ¥ | 2 |  |
| Repetition Separator | , | 3 |  |
| Field Separator | ¶ | 4 |  |
| Segment Terminator | ÿ | - |  |

# Data Type Definition

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Type Category/ Data Type** | **Data Type Name** | **Format** | **Description** |
| Alphanumeric |  |  |  |
| ST | String | |any data| | Any displayable (printable) ACSII characters (hexadecimal values between 20 and 7E, inclusive, or ASCII decimal values between 32 and 126), except the defined delimiter characters. |
| Numerical |  |  |  |
| NM | Numeric | |999| | A number represented as a series of ASCII numeric characters consisting of an optional leading sign ( + or -), the digits and an optional decimal point. In the absence of a sign, the number is assumed to be positive. If there is no decimal point the number is assumed to be an integer. |
| Date/Time |  |  |  |
| DT | Date | YYYY[MM[DD]] |  |
| TS | Time Stamp | YYYY[MM[DD[HHMM[SS]]]] | Contains the exact time of an event, including the date and time. |
| Identifier |  |  |  |
| GC | General Code | <master reference code>^<detail reference code>^<description>  Note:  1st component – Optional  2nd component – Required.  3rd component - Required | User defined values for general reference including national, MOH and MOL coding standard.  1st component – uniquely identified code for the reference name(ST).  2nd component – uniquely identified code for the reference item(ST).  3rd component – the name or description for the referred item (ST).  For example: sex  <041>^<L>^<Lelaki> |
| Response |  |  |  |
| RC | Response contents consist of service type code and detail content code. | <service type code > ^ <content detail code> | 1st component – uniquely identified the service type id  2nd component – uniquely identified the content detail code |
| Code Value |  |  |  |
| CE | Code element | <coded value> ^ <description>^<name of coding system >  Note:  1st component – Required  2nd component – Required.  3rd component - Optional | 1st component – uniquely identified code for the referred item. (ST).  2nd component – the name or description for the referred item (ST).  3rd component – the name of coding std used (ST) |
| CCE | Composite coded element | CE[{CE}]  <coded value> & <name of coding system > &<value>^  [{<coded value..n> & <name of coding system..n > &<value..n>}] |  |
| Generic |  |  |  |
| CM | Composite | <component code-1 > ^ <component code-n> |  |
| Area |  |  |  |
| MON | Monitoring or sub-monitoring area | < identifier code > ^ <name of coding system > ^ <desc> | 1st component – uniquely identified the mon/sub mon code  2nd component – uniquely identified the coding system  3rd component – identified the description of mon/sub mon |

Figure 2: Data Type Definition

# Message Type and Transaction/Event

| Message | Txn/Events | Description |
| --- | --- | --- |
| QWC | - | Query for Well Child Contents – to be reviewed |
|  | QWC1M | Query Well Child Service for one month |
|  | QWC2M | Query Well Child Service for two month |
| RWC | - | Response to Well Child Contents – to be reviewed |
|  | RWC1M | Response Well Child Service for one month |
|  | RWC2M | Response Well Child Service for two month |
| OMS |  | Order management system – order request |
|  | [T12100](#_6.3.1.1_Drug_Treatment) | Treatment/medication order |
|  | [T12101](#_6.3.2.1_Laboratory_Investigation) | Lab test order |
|  | [T12102](#_6.3.3.1_Radiology_Order) | Radiology/imaging order |
|  | [T12103](#_6.3.4.1_Procedure_Order) | Surgical Medical Procedure order |
|  | [T12104](#_Appointment/Followup_–_ARQ) | Follow-up Request |
|  | [T12105](#_6.3.4.1_Referral_Information) | Patient referral request |
|  | [T12106](#_6.3.6.1_Appointment_Request) | Request for Appointment |
|  | T12107 | Monitoring request message |
|  | [T12108](#_Lifetime_Health_Record) | Maintain Patient Master Index |
|  | [T12109](#_Lifetime_Health_Record) | Maintain Health Record |
|  | [T12110](#_Lifetime_Health_Record) | Cured a Disease |
|  | [T12111](#_Admit_to_Ward) | Request for admission |
|  | T12112 | Generate PMI Number |
|  | T12113 |  |
|  | T12114 |  |
|  |  | Order management system – response/result |
|  | [T12200](#_6.3.1.2_Drug_Dispense) | Treatment/medication dispense information |
|  | [T12201](#_Laboratory_Investigation_Result) | Response for Lab test result |
|  | [T12202](#_6.3.3.2_Radiology_Report) | Response for Radiology/imaging report |
|  | [T12203](#_6.3.5.2_Assigned/Response_Procedure) | Response/Assign Surgical Medical Procedure |
|  | T12204 | Response for follow-up query |
|  | T12205 | Response for patient referral |
|  | T12206 | Response for appointment query |
|  | T12207 | Response for monitoring query |
|  |  | Order management system – Query/View order |
|  | T12300 | Query/View Treatment/medication dispense information |
|  | T12301 | Query/View test result |
|  | T12302 | Query/View Radiology/imaging report |
|  | T12303 | Query/View Surgical Medical Procedure |
|  | T12304 | Query/View follow-up |
|  | T12305 | Query/View patient referral |
|  | T12306 | Query/View appointment |
|  | T12307 | Query/View monitoring info |
|  | [T12308](#_6.3.10.1_View/Query_Lifetime) | Query/View Lifetime Health Summary |
|  | T12309 | Query/View Reports |
|  | [T12310](#_6.3.10.2_View/Query_Patient) | Query/View Patient Information |
|  | T12311 | Query/View Medical Record |
|  | T12312 | Query/View Health Services Provider Information |
|  | T12313 | Query/View |
|  |  | Order management system - Cancel order |
|  | [T12400](#_Drug_Cancellation_Segment) | Cancel medication/treatment order |
|  | [T12401](#_6.3.2.3_Lab_Investigation) | Cancel lab order |
|  | [T12402](#_6.3.3.3_Radiology_Cancellation) | Cancel imaging order |
|  | T12403 | Cancel Surgical Medical Procedure order |
|  | T12404 | Cancel Follow-up Request |
|  | T12405 | Cancel Patient referral request |
|  | T12406 | Cancel Request for Appointment |
|  | T12407 | Cancel Monitoring request message |

Figure 3: Message Type and Event

# Common Message Segments

## Message Header Segment- MSH

The MSH segment defines the intent, source, destination, and some specifics of the syntax of a message.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | ST | R |  |  |  | Field Separator |
|  | 4 | ST | R |  |  |  | Encoding Characters |
|  | 10 | ST | R |  |  |  | Sending Application |
|  | 10 | CM | R |  |  |  | Sending Facility |
|  | 10 | ST | R |  |  |  | Receiving Application |
|  | 10 | CM | R |  |  |  | Receiving Facility |
|  | 14 | TS | R |  |  |  | Date/Time of message |
|  | 40 | ST | O |  |  |  | Security |
|  | 20 | CM | R |  |  |  | Message Type |
|  | 10 | ST | R |  |  |  | Message Control ID |
|  | 1 | ST | O |  |  |  | Processing ID |
|  | 30 | ST | O |  |  |  | Version ID |
|  | 15 | NM | O |  |  |  | Sequence Number |
|  | 180 | ST | O |  |  |  | Continuation Pointer |
|  | 60 | CE | O |  |  |  | Accept Acknowledge Type |
|  | 60 | CE | O |  |  |  | Application Acknowledge Type |
|  | 250 | GC | O |  |  |  | Country Code |
|  |  | ST | O |  |  |  | Character Set |
|  | 60 | CE | O |  |  |  | Principal Language of Message |
|  | 60 | CE | R |  |  |  | Requestor info |

Figure 4: Message Header Segment

MSH Definition:

1. Field Separator (F01994)

Definition : This field contains the separator between the segment ID and the first real field. As such it serves as the separator and defines the character to be used as a separator for the rest of the message. Recommended value is

1. Encoding Character (F01995)

Definition : This field contains the four characters in the following order: the component separator, repetition separator, escape character, and subcomponent separator. Recommended values are ^~\&.

1. Sending Application (F01996)

Definition : This field uniquely identifies the sending application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of LHP messages within the enterprise. Recommended values are as below:

|  |  |
| --- | --- |
| CIS | Clinical Information System |
| LIS | Laboratory Information System |
| PIS | Pharmacy Information System |
| PMS | Patient Management System |
| RIS | Radiology Information System |

1. Sending Facility (F01343)

Definition : This field contains the address of one of several occurrences of the same application within the sending system (using the same hub) - (it actually host health facility) – Components: <hfc code>^<discipline>^<sub-discipline>

1. Receiving Application (F01998)

Definition : This field uniquely identifies the receiving application among all other applications within the network enterprise.

1. Receiving Facility (F01703)

Definition : This field identifies the receiving health facility.

Components: <hfc code>^<discipline>^<sub-discipline>

1. Date/Time of Message (F02000)

Definition: This field contains the date/time that the sending system created the message.

1. Security (F02001)

Definition: This field is used to implement security features. This feature will be specified later.

1. Message Type

Components: <Message Type (ST – F02002)>^<Event/Transaction Code (ST – F00361)>

Definition: This field contains the message type and trigger event for the message.

Please refer Chapter 3 – Message Type and Event.

1. Message control id (F02003)

Definition: This field contains a number or other identifier that uniquely identifies the message.

1. Processing ID (F02004)

Definition: This field is used to decide whether to process the message. Recommended values are:

|  |  |
| --- | --- |
| **Value** | **Description** |
| D | Debugging |
| P | Production |
| T | Training |

1. Version ID (F02005)

Definition: This field is matched by the receiving system to its own version to be sure the message will be interpreted correctly.

1. Sequence Number (F02006)

Definition: A non-null value in this field implies that the sequence number protocol is in use. This numeric field is incremented by one for each subsequent value.

1. Continuation Pointer (F02007)

Definition: This field is used to define continuations in application-specific ways.

1. Accept Acknowledge Type (F02008)

Component : < Type Value >^<Description>^<Coding standard>

Coding standard : UD

Definition: This field identifies the conditions under which accept acknowledgements are required to be returned in response to this message. Required for enhanced acknowledgment mode

1. Application Acknowledge Type (F02009)

Component : < Type Value>^<Description>^<Coding standard>

Coding standard : UD

Definition: This field contains the conditions under which application acknowledgements are required to be returned in response to this message. Required for enhanced acknowledgment mode. Recommended values for accept and application acknowledge type are:

|  |  |
| --- | --- |
| **Value** | **Description** |
| AL | Always |
| NE | Never |
| ER | Error/reject conditions only |
| SU | Successfully completion only |

1. Country Code (F02010)

Component : <001>^<Detail Reference Code >^<Description>

Definition: This field contains the country of origin for the message.

1. Character Set (F02011)

Definition: This field contains the character set for the entire message. The value to be defined later.

1. Principal Language of Message (F02012)

Definition: This field contains the principal language of the message.

1. Requestor info ()

Component : <Requestor ID>^<Requestor Name>

e.g. |00717^Dr Mohd Khanapi Abd Ghani|

## Person Master Index Information

Person Master Index Information comprises of [Demographic Info](#_4.2.1_Patient_Demographic), [Next Of Kin info](#_4.2.2_Next_Of), Family Information, Employment Information, Medical Insurance Information, Birth Information and Donor Information.

### 4.2.1 Patient Demographic Information - PDI

The PDI segment is used by all applications as the primary means of communicating patient identification information. This segment contains permanent patient identifying and demographic information that, for the most part, is not likely to change frequently.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 30 | ST | R | N |  |  | PMI No |
|  | 80 | ST | R | N |  |  | Patient name |
|  | 8 | ST | O | N |  |  | Old IC no |
|  | 12 | ST | O | N |  |  | New IC no |
|  | 250 | GC | O | N |  |  | Id Type |
|  | 30 | ST | O | N |  |  | Id No |
|  | 250 | GC | R | N |  |  | Sex |
|  | 250 | GC | R | N |  |  | Date of Birth |
|  | 250 | GC | R | N |  |  | Race |
|  | 250 | GC | R | N |  |  | Marital status |
|  | 250 | GC | R | N |  |  | Religion |
|  | 250 | GC | R | N |  |  | Nationality |
|  | 30 | ST | O | N |  |  | Address-1 |
|  | 30 | ST | O | N |  |  | Address-2 |
|  | 30 | ST | O | N |  |  | Address-3 |
|  | 250 | GC | O | N |  |  | Town |
|  | 250 | GC | O | N |  |  | District |
|  | 250 | GC | O | N |  |  | State |
|  | 250 | GC | O | N |  |  | Country |
|  | 5 | ST | O | N |  |  | Postcode |
|  | 15 | ST | O | N |  |  | Home Phone number |
|  | 15 | ST | O | N |  |  | Office Phone number |
|  | 15 | ST | O | N |  |  | Mobile Phone number |
|  | 50 | ST | O | N |  |  | E-mail |

Figure 5: Patient Demographic Information

PDI Definition:

1. PMI No (F00105)

Definition :This field contains the unique identication for patient.

1. Patient Name (F00108)

Definition: This field contains the full name of the patient.

1. New ic no (F01323)

Definition: This field identifies the patient identification number through new identification.

1. Old ic no (F01324)

Definition: This field identifies the patient identification number through old identification.

1. Id Type (F01325)

Component : <012>^<Detail Reference Code >^<Description>

Definition: This field identifies the patient’s identification type such as Passport, Mother’s IC, Birth Certificate and Military Card.

1. Id No (F00107)

Definition: This field contains the patient identification number based on id type.

1. Sex (F00111)

Component : <041>^<Detail Reference Code >^<Description>

Definition: This field identifies gender of the patient.

1. Date of Birth (F00110)

Definition: This field contains the patient’s date of birth.

1. Race (F00113)

Component : <004>^<Detail Reference Code >^<Description>

Definition: This field identifies the patient’s race.

1. Marital Status (F00119)

Component : <006>^<Detail Reference Code >^<Description>

Definition: This field identifies the patient’s marital status.

1. Religion (F00120)

Component : <005>^<Detail Reference Code >^<Description>

Definition: This field identifies the patient’s religion.

1. Nationality (F00739)

Component : <011>^<Detail Reference Code >^<Description>

Definition: This field identifies the nation or national group to which the patient belongs.

1. Address-1 (F00114)

Definition: This field contains the first line of street of home address.

1. Address-2 (F01329)

Definition: This field contains the second line of street of home address.

1. Address-3 (F01330)

Definition: This field contains the third line of street of home address.

1. Town (F01331)

Component : <003>^<Detail Reference Code >^<Description>

Definition: This field contains the town of the home address.

1. District (F01763)

Component : <088>^<Detail Reference Code >^<Description>

Definition: This field contains the district of the home address.

1. State (F01332)

Component : <002>^<Detail Reference Code >^<Description>

Definition: This field contains the state of the home address.

1. Country (F01498)

Component : <001>^<Detail Reference Code >^<Description>

Definition: This field contains the country of the home address.

1. Postcode (F01333)

Definition: This field identifies the postcode of the home address.

1. Home Phone Number (F00116)

Definition: This field contains the home contact number.

1. Office Phone Number (F00117)

Definition: This field contains the office contact number for working patient.

1. Mobile Phone Number (F01340)

Definition: This field contains the mobile contact number.

24. E-mail (F00683)

Definition: This field contains patient’s e-mail address. This field will be used for any notification from the system such as reminder for an appointment if the patient is not turn up on the appointment day.

### 4.2.2 Next Of Kin Information - NOK

The NOK segment contains information about the patient’s other related parties. Any associated parties may be identified.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 30 | ST | R | N |  |  | Next of kin ID |
|  | 80 | ST | R | N |  |  | Name |
|  | 8 | ST | O | N |  |  | Old IC no |
|  | 12 | ST | O | N |  |  | New IC no |
|  | 250 | GC | O | N |  |  | Id Type |
|  | 30 | ST | O | N |  |  | Id No |
|  | 250 | GC | O | N |  |  | Date of Birth |
|  | 30 | ST | O | N |  |  | Address-1 |
|  | 30 | ST | O | N |  |  | Address-2 |
|  | 30 | ST | O | N |  |  | Address-3 |
|  | 250 | GC | O | N |  |  | Town |
|  | 250 | GC | O | N |  |  | District |
|  | 250 | GC | O | N |  |  | State |
|  | 250 | GC | O | N |  |  | Country |
|  | 5 | ST | O | N |  |  | Postcode |
|  | 15 | ST | O | N |  |  | Home Phone number |
|  | 15 | ST | O | N |  |  | Office Phone number |
|  | 15 | ST | O | N |  |  | Mobile Phone number |
|  | 170 | CE | O | N |  |  | Occupation |
|  | 50 | ST | O | N |  |  | E-mail |

Figure 6: Next of Kin Segment

NOK Definition:

1. Next of kin ID ( F00190)

Definition :This field contains the unique identication for the next of kin.

1. Patient Name (F00191)

Definition: This field contains the full name of the next of kin.

1. New ic no (F01323)

Definition: This field identifies the next of kin’s identification number through new identification.

1. Old ic no (F01324)

Definition: This field identifies the next of kin’s identification number through old identification.

1. Id Type (F01325)

Component : <012>^<Detail Reference Code >^<Description>

Definition: This field identifies the next of kin’s identification type such as Passport, Mother’s IC, Birth Certificate and Military Card.

1. Id No (F00107)

Definition: This field contains the next of kin’s identification number based on id type.

1. Date of Birth (F00110)

Definition: This field contains the patient’s date of birth.

1. Address-1 (F00114)

Definition: This field contains the first line of street for address.

1. Address-2 (F01329)

Definition: This field contains the second line of street for address.

1. Address-3 (F01330)

Definition: This field contains the third line of street for address.

1. Town (F01331)

Component : <003>^<Detail Reference Code >^<Description>

Definition: This field contains the town of the home address.

1. District (F01763)

Component : <088>^<Detail Reference Code >^<Description>

Definition: This field contains the district of the address.

1. State (F01332)

Component : <002>^<Detail Reference Code >^<Description>

Definition: This field contains the state of the address.

1. Country (F01498)

Component : <001>^<Detail Reference Code >^<Description>

Definition: This field contains the country of the address.

1. Postcode (F01333)

Definition: This field identifies the postcode of the address.

1. Home Phone Number (F00116)

Definition: This field contains the home contact number.

1. Office Phone Number (F00117)

Definition: This field contains the office contact number for working patient.

1. Mobile Phone Number (F01340)

Definition: This field contains the mobile contact number.

1. Occupation

Component : <Occupation code (ST – F00786)>^<Occupation desc (ST – F00785) >^<Coding standard>

Coding standard : UD

Definition: This field contains the occupation of the next of kin.

20. E-mail (F00683)

Definition: This field contains electronic mail address of the patient’s next of kin.

### 4.2.3 Family Information – FMI (TBD … stop on 11/2/2003)

The FMI segment contains information about the patient’s other related parties. Any associated parties may be identified.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 30 | ST | R | N |  |  | Next of kin ID |
|  | 80 | ST | R | N |  |  | Name |
|  | 8 | ST | O | N |  |  | Old IC no |
|  | 12 | ST | O | N |  |  | New IC no |
|  | 250 | GC | O | N |  |  | Id Type |
|  | 30 | ST | O | N |  |  | Id No |
|  | 250 | GC | O | N |  |  | Date of Birth |
|  | 30 | ST | O | N |  |  | Address-1 |
|  | 30 | ST | O | N |  |  | Address-2 |
|  | 30 | ST | O | N |  |  | Address-3 |
|  | 250 | GC | O | N |  |  | Town |
|  | 250 | GC | O | N |  |  | District |
|  | 250 | GC | O | N |  |  | State |
|  | 250 | GC | O | N |  |  | Country |
|  | 5 | ST | O | N |  |  | Postcode |
|  | 15 | ST | O | N |  |  | Home Phone number |
|  | 15 | ST | O | N |  |  | Office Phone number |
|  | 15 | ST | O | N |  |  | Mobile Phone number |
|  | 170 | CE | O | N |  |  | Occupation |
|  | 50 | ST | O | N |  |  | E-mail |

Figure 7: Family Information

FMI Definition:

1. Next of kin ID ( F00190)

Definition :This field contains the unique identication for the next of kin.

1. Patient Name (F00191)

Definition: This field contains the full name of the next of kin.

1. New ic no (F01323)

Definition: This field identifies the next of kin’s identification number through new identification.

1. Old ic no (F01324)

Definition: This field identifies the next of kin’s identification number through old identification.

1. Id Type (F01325)

Component : <012>^<Detail Reference Code >^<Description>

Definition: This field identifies the next of kin’s identification type such as Passport, Mother’s IC, Birth Certificate and Military Card.

1. Id No (F00107)

Definition: This field contains the next of kin’s identification number based on id type.

1. Date of Birth (F00110)

Definition: This field contains the patient’s date of birth.

1. Address-1 (F00114)

Definition: This field contains the first line of street for address.

1. Address-2 (F01329)

Definition: This field contains the second line of street for address.

1. Address-3 (F01330)

Definition: This field contains the third line of street for address.

1. Town (F01331)

Component : <003>^<Detail Reference Code >^<Description>

Definition: This field contains the town of the home address.

1. District (F01763)

Component : <088>^<Detail Reference Code >^<Description>

Definition: This field contains the district of the address.

1. State (F01332)

Component : <002>^<Detail Reference Code >^<Description>

Definition: This field contains the state of the address.

1. Country (F01498)

Component : <001>^<Detail Reference Code >^<Description>

Definition: This field contains the country of the address.

1. Postcode (F01333)

Definition: This field identifies the postcode of the address.

1. Home Phone Number (F00116)

Definition: This field contains the home contact number.

1. Office Phone Number (F00117)

Definition: This field contains the office contact number for working patient.

1. Mobile Phone Number (F01340)

Definition: This field contains the mobile contact number.

1. Occupation

Component : <Occupation code (ST – F00786)>^<Occupation desc (ST – F00785) >^<Coding standard>

Coding standard : UD

Definition: This field contains the occupation of the next of kin.

39. E-mail (F00683)

Definition: This field contains electronic mail address of the patient’s next of kin.

### 4.2.4 Medical Insurance Provider Information – MIP (TBD … stop on 11/2/2003)

The MIP segment contains information about the medical insurance information.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 30 | ST | R | N |  |  | Next of kin ID |
|  | 80 | ST | R | N |  |  | Name |
|  | 8 | ST | O | N |  |  | Old IC no |
|  | 12 | ST | O | N |  |  | New IC no |
|  | 250 | GC | O | N |  |  | Id Type |
|  | 30 | ST | O | N |  |  | Id No |
|  | 250 | GC | O | N |  |  | Date of Birth |
|  | 30 | ST | O | N |  |  | Address-1 |
|  | 30 | ST | O | N |  |  | Address-2 |
|  | 30 | ST | O | N |  |  | Address-3 |
|  | 250 | GC | O | N |  |  | Town |
|  | 250 | GC | O | N |  |  | District |
|  | 250 | GC | O | N |  |  | State |
|  | 250 | GC | O | N |  |  | Country |
|  | 5 | ST | O | N |  |  | Postcode |
|  | 15 | ST | O | N |  |  | Home Phone number |
|  | 15 | ST | O | N |  |  | Office Phone number |
|  | 15 | ST | O | N |  |  | Mobile Phone number |
|  | 170 | CE | O | N |  |  | Occupation |
|  | 50 | ST | O | N |  |  | E-mail |

Figure 8: Medical Insurance Information

## Clinical Information

Clinical Information comprises of [Health Condition Information](#_4.3.1_Health_Condition) and [Episode Summary Information](#_4.3.2_Episode_Summary).

### 4.3.1 Health Condition Summary Segment - HCS

The HCS segment contains information on permanent and semi health information such as blood, allergy, immunization, social history and chronic disease.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2 | ST | O | N |  |  | Blood type |
|  | 250 | GC | O | N |  |  | Blood rhesus |
|  | 520 | CE | O | Y |  |  | Allergy |
|  | 520 | CE | O | Y |  |  | Immunization |
|  | 520 | CE | O | Y |  |  | Social history |
|  | 520 | CE | O | Y |  |  | Chronic disease/Diagnosis (ICD10) |
|  | 250 | ST | O | N |  |  | Health Condition Notes |

Figure 9: Health Condition Summary Segment

HCS Definition:

1. Blood type (F01327)

Definition: This field contains patient’s blood type.

1. Blood rhesus (F01328)

Component : <017>^<Detail Reference Code >^<Description>

Definition: This field contains blood rhesus code and description.

1. Allergy

Component : <Allergy code (ST – F01589)>^<Allergy desc (ST – F00205) >^<Coding standard>

Coding standard : CTV3

Definition: This field contains code and description of patient’s allergy. Every patient may have more than one allergy.

1. Immunization

Component : <Immunization code (ST – F01597)>^<Immunization desc (ST – F01598) >^<Coding standard>

Coding standard : CTV3

Definition: This field contains code and description of immunization. Every patient may have taken than one immunization.

1. Social history

Component : <Social history code (ST – F01595)>^<Social history desc (ST – F01596) >^<Coding standard>

Coding standard : CTV3

Definition: This field contains code and description of social history information. Every patient may have more than one social history.

1. Chronic disease

Component : <Diagnosis code (ST – F00377)>^<Diagnosis desc (ST – F00378) >^<Coding standard>

Coding standard : ICD10

Definition: This field contains code and description of chronic disease. Every patient may diagnose with more than one chronic disease.

1. Notes (F02032)

Definition: This field contains free text notes for patient’s health condition.

### 4.3.2 Episode Summary Segment - ESS

The ESS segment contains information on health summary for a visit. This segment can be used for all application especially for the provider for the purpose of viewing the visit summary.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 520 | CE | O | Y |  | F00377 | Diagnosis |
|  | 520 | CE | R | Y |  | F01580 | Chief complaint |
|  | 520 | CE | O | Y |  | F01582 | Signs |
|  | 520 | CE | O | Y |  | F01552 | Lab investigation |
|  | 520 | CE | O | Y |  | F01565 | Lab investigation result |
|  | 520 | CE | O | Y |  | F01552 | Imaging investigation |
|  | 520 | CE | O | Y |  | F01610 | Imaging investigation report |
|  | 520 | CE | O | Y |  | F01791 | Drug |
|  | 520 | CE | O | Y |  | F01800 | Dispense drug |
|  | 5,2 | NM | O | N |  | F01587 | Height |
|  | 5,2 | NM | O | N |  | F01586 | Weight |
|  | 10 | ST | O | N |  | F01364 | Registration No/Episode No |
|  | 250 | ST | O | N |  | F00098 | Notes |

Figure 10: Episode Summary Segment

ESS Definition:

1. Diagnosis

Component : <Diagnosis code (ST – F00377)>^<Diagnosis desc (ST – F00378) >^<Coding standard>

Coding standard : ICD10

Definition: This field contains code and description of diagnosis for the specific visit.. Every patient may diagnose with more than one diagnosis.

1. Chief Complaint/Symptom

Component : <Symptoms code (ST – F01580)>^<Symptoms desc (ST – F01581) >^<Coding standard>

Coding standard : CTV3

Definition: This field contains code and description of chief complaint. Every patient may have more than one chief complaint.

1. Signs

Component : <Signs code (ST – F01582)>^<Signs desc (ST – F01583) >^<Coding standard>

Coding standard : CTV3

Definition: This field contains code and description of physical exam. Every patient may examine with more than one physical exam.

1. Lab investigation

Component : < Test item code (ST – F01552)>^<Test item desc (ST – F01553) >^<Coding standard>

Coding standard : ICD10 PCS

Definition: This field contains code and description of lab test that has been performed.

1. Lab investigation result

Component : <Test result code (ST – F01565)>^<Test result desc (ST – F01566) >^<Coding standard>

Coding standard : UD

Definition: This field contains code and description of test result.

1. Imaging investigation

Component : <Imaging investigation code (ST – F02033)>^<Imaging investigation desc (ST – F02034) >^<Coding standard>

Coding standard : ICD10 - PCS

Definition: This field contains code and description of imaging investigation that has been performed.

1. Imaging investigation report

Component : <Imaging investigation report code (ST – F01610)>^<Imaging investigation report desc (ST – F01611) >^<Coding standard>

Coding standard : UD

Definition: This field contains code and description of imaging investigation report.

1. Drug

Component : <Drug code (ST – F01800)>^<Drug desc (ST – F01801) >^<Coding standard>

Coding standard : ATC

Definition: This field contains code and description of the ordered drug.

1. Dispense drug

Component : <Dispense drug code (ST – F01791)>^<Dispense drug desc (ST – F01792) >^<Coding standard>

Coding standard : MDC

Definition: This field contains code and description of the dispensed drug.

1. Height

Definition: This field contains height of the patient. The height must be in centimeter.

1. Weight

Definition: This field contains weight of the patient. The weight must be in kilogram.

1. Registration no/Episode no

Definition: This field identifies the unique identification number for the visit. The format for this number is YY99999999 where:

YY – current year

99999999 – running number.

1. Notes

Definition: This field contains free text note for the visit summary.

## Episode Information - EPI

Episode is an interval of care by a health care facility or health care provider for a specific medical problem or condition. It may be continuous or it may consist of a series of intervals marked by one or more brief separations from care, and can also identify the sequence of care (e.g., emergency, inpatient, outpatient), thus serving as one measure of health care provided.

An episode of care comprise of a clinical encounter with Health Care Professional plus any other related clinical and administrative services. An individual must be a registered patient to receive service under an episode of care.

Figure 4.4 : EPl Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | 8 | ST | R | N |  |  | Health facility code |
|  | 10 | ST | O | N |  |  | Patient category |
|  | 14 | TS | O | N |  |  | Discharge date |
|  | Var | CM | C | N |  |  | ECI info |
|  | 1 | ST | O | N |  |  | Chronic Ind |
|  | 500 | CE | O | Y |  |  | Active drug taken |
|  | 500 | CE | O | Y |  |  | Procedure taken |
|  | 10 | ST | O | N |  | F01364 | Registration No/Episode No |

4.4.1 Episode Date (TS)

Definition : A date and time of the episode of care

4.4.2 Health facility code (ST)

Definition : This field contains the unique identifier of the healthcare provider

4.4.3 Patient category (ST)

Definition : This field contains a patient category identifier such as in-patient, out-patient or emergency

* + 1. Discharge date (TS)

Definition : This field contains a date and time of patient being discharged from the clinic or ward.

* + 1. ECI Info (CM)

components : <encounter date (TS)> ^ <doctor id (ST)>^ <doctor name(ST)> ^ discipline info (ST)> ^ < sub discipline info(ST) >

sub components of discipline info : < discipline cd (ST)> ¥ <discipline name(ST)> ¥ <code scheme(ST)>

sub components of sub discipline info : < discipline cd (ST)> ¥ <discipline name(ST)> ¥ <code scheme(ST)>

Definition : This field contains the information of encounter of a specific episode. The optionality of this field is defined as conditional. Whether the field is required will be depending on ECI segment that provided in the transaction’s message.

This field defined as a composite component. First component is a date and time of the encounter. Second and third component is the unique identifier of the healthcare professional being given consultation to the patient. Fourth and fifth component are specifies the discipline and subdiscipline where the person who entered the clinical finding was physically located. The fourth and fifth component are defined as a code element.

Discipline info : This sub component contains the unique code of the discipline, discipline name and standard code used.

Sub Discipline info : This sub component contains the unique code of the sub discipline. Second and third sub component is a description of the sub discipline and code scheme to be used.

* + 1. Chronic Ind (ST)
    2. Active Drug Taken (CE)

Components: <drugCode (ST)> ^ <drugDesc (ST)>

* + 1. Procedure Taken (CE)

Components: <procCode (ST)> ^ <procDesc (ST)>

* + 1. Registration no/Episode no

Definition : This field identifies the unique identification number for the visist. The format for this number is YY99999999

where:YY – current year asasas

## Encounter Information – ECI

Encounter in healthcare definition is categorised into clinical encounter and administrative encounter.

A Clinical Encounter is a session between patient and Health Care Professional in the process of delivering clinical health service in an episode of care. An Administrative Encounter is a session between patient and Health Care Officer in the process of delivering administrative health related service in an episode of care.

Figure 4.5 : ECl Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Encounter date |
|  | 8 | ST | R | N |  |  | Doctor ID |
|  | 80 | ST | O | N |  |  | Doctor name |
|  | 120 | CE | R | N |  |  | Discipline code |
|  | 120 | CE | R | N |  |  | Subdiscipline code |

* + 1. Encounter Date (TS)

Definition : A date and time of the encounter

* + 1. Doctor ID

Definition : This field contains the unique identifier of the healthcare professional being given consultation to the patient.

* + 1. Doctor Name

Definition : This field contains a name of the healthcare professional being given consultation to the patient.

* + 1. Discipline code (CE)

components of discipline code : < discipline cd (ST)> ^ <discipline name(ST)> ^ <code scheme(ST)>

Definition: This field specifies the discipline where the healthcare professional was physically located.

* + 1. Subdiscipline code (CE)

components of sub discipline code : < discipline cd (ST)> ^ <discipline name(ST)> ^ <code scheme(ST)>

Definition: This field specifies the sub discipline where the healthcare professional was physically located.

## Query Definition – QRD

The QRD segment is used to define a query. It will be

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Query Date/time |
|  | 1 | ST | R | N |  |  | Query Priority |
|  | 1 | ST | O | N |  |  | Query Format |
|  | 10 | ST | O | N |  |  | Query ID |
|  | 1 | ST | O | N |  |  | Deferred Response Type |
|  | 14 | TS | O | N |  |  | Deferred Response Date/Time |
|  | 10 | NUM | O | N |  |  | Quantity Limited Request |
|  | 60 | ST | O | N |  |  | Who Subject Filter |
|  | 15 | CM | O | N |  |  | What Subject Filter/Query type |
|  | 60 | CE | O | Y |  |  | What Department Data Code |
|  | 20 | CM | O | Y |  |  | What Data Code Value Qual. |
|  | 1 | ID | O | N |  |  | Query Results Level |

Figure 11: Query Definition Segment

QRD Definition:

1. Query date/time (ST)

Definition: This field contains the date and time that the query was generated by the application program.

1. Query format (ST)

Definition: This field contains the required response format. Eg. D - Response is in display format, R - Response is in record oriented format, T - Response is in tabular format. Refer to TB017 in Section 11 for the recommended code to be used.

1. Query priority

Definition: This field contains the time frame in which the response is expected. Eg. D - Deferred, I – Immediate. Refer to TB016 in Section 11 for the recommended code to be used.

1. Query id

Definition : This field contains a unique identifier for the query. Assigned by the querying application. Returned intact by the responding application.

1. Deferred response type

Definition: This field contains the deferred response type.

1. Deferred response date/time

Definition: This field contains the date/time before or after which to send a deferred response. If not present, the response can be sent when it is available.

1. Minimum request

Definition : This field contains the minimum record of the response that can be accepted by the requesting system. This field is not compulsory since the information is provided in specific type of query.

1. Maximum request

Definition : This field contains the maximum record of the response that can be accepted by the requesting system. This field is not compulsory since the information is provided in specific type of query.

1. Who subject filter

Definition :This field describes the kind of information that is required to satisfy the request. Valid values define the type of transaction inquiry and may be extended locally during implementation.

1. What subject filter/Query type

Definition :This field describes the kind of information that is required to satisfy the request. Valid values define the type of transaction inquiry and may be extended locally during implementation.

# 5. CIS Wellness Segments

## 5.1 One Month Wellchild Segments

### Wellchild Order Monitoring Area Segment – MNA

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 10 | ST | R | N |  |  | Program code |
|  | 8 | ST | R | N |  |  | Monitoring |
|  | 80 | ST | R | Y |  |  | Sub monitoring area content |

Message type and event type

Sample for PLHP\_REQ :

[Message Header] MSH | ^&~\ |… | QWC ^QWC1M| … <cr>

[Patient Demographic Information] PDI | ……………… <cr>

[[Growth Parameters] MNA | WC1M |GRW & Growth & CSS **|**

GRW1 & Weight & CSS ^ Q1 & 3.5 kg & CSS ~

GRW2 & Height & CSS ^ Q2 & 50 cm & CSS ~

GRW3 & Head circumference & CSS ^ Q3 & 25 cm & CSS <cr>

[Development Parameters] MNA | WC1M |DEV & Development & CSS **|**

DEV1 & Gross Motor & CSS ^ Q36 & Yes & CSS ^ Q37 & Yes & CSS ~

DEV1 & Auditory/Hearing & CSS ^ Q41 & Yes & CSS ^ Q42 & No & CSS

<cr>

[Nutrition Parameters] MNA | WC1M | NUT & Nutrition & CSS **|**

NSA1 & Breastfeeding & CSS ^ NQuestion1 & No & CSS ^ Question2 & Yes & CSS ~

NSA2 & FormulaFeeding & CSS ^ NQuestion3 & Answer3 & CSS ^ NQuestion4 & Yes & CSS ~

NSA3 & MixedFeedng & CSS ^ NQuestion5 & No & CSS ^ NQuestion6 & Lt6 & CSS

<cr>

[Immunization Parameters] MNA | WC1M | IMN & Immunization & CSS **|**

IMSA1 & BCG & CSS ^ ImQuestion1 & Yes & CSS ~

IMSA2 & HEPB & CSS ^ ImQuestion4 & No & CSS ~

<cr>

### Well Child Response Contents Segment - WRC

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 10 | ST | R | N |  |  | Program code |
|  | 30 | CE | O | N |  |  | Monitoring |
|  | 30 | CE | O | N |  |  | Sub monitoring |
|  | 10 | ST | O | N |  |  | Risk code |
|  | Var | RC | R | Y |  |  | Response contents |

Sample of Message : Response for Well Child Contents (RWC)

Transaction/event : Response Well Child Service for one month (RWC1M)

MSH|^~|RWC^RWC1M| <cr>

RES| WC1M |GRW ^Growth^CSS |WT ^Weight^CSS | risk\_code

|HLP^Code-1 -n~MXP^Code-1~MXP^Code-n~HLP^Code <cr>

RES | WC1M |GRW ^Growth^CSS |HT ^Height^CSS |risk\_code

|HLP^Code-1~ HLP ^Code-n~

MXP^Code-1~ MXP ^Code-n~

ADV^Code-1~ ADV ^Code-n~

CME^Code-1~ CME ^Code-n~

MCP^Code-1~ MCP ^Code-n <cr>

RES | WC1M |GRW ^Growth^CSS |HC ^Head Circum^CSS |risk\_code

|HLP^Code-1~ HLP ^Code-n~

MXP^Code-1~ MXP ^Code-n~

ADV^Code-1~ ADV ^Code-n~

CME^Code-1~ CME ^Code-n~

MCP^Code-1~ MCP ^Code-n <cr>

RES | WC1M |DEV ^Development^CSS |GM ^Gross Motor^CSS |risk\_code

|HLP^Code-1~ HLP ^Code-n~

MXP^Code-1~ MXP ^Code-n~

ADV^Code-1~ ADV ^Code-n~

CME^Code-1~ CME ^Code-n~

MCP^Code-1~ MCP ^Code-n <cr>

# Order Entry Segments

## *6.1 COMMON ORDER INFORMATION - ORC*

The Common Order segment (ORC) is used to transmit fields that are common to all orders (all types of services that are requested). The ORC segment is required in all application for ordering message.

If details are needed for a particular type of order segment (e.g., Pharmacy, Laboratory), the ORC must precede any order detail segment (e.g., DTO, LIO). In some cases, the ORC may be as simple as the string ORC|OK|<placer order number>|<filler order number>|<CR>.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 10 | ST | R | N |  |  | Transaction Code/Order control id |
|  | 18 | ST | R | N |  |  | Placer Order number |
|  | 18 | ST | O | N |  |  | Filler Order Number |
|  | 70 | CE | O | N |  |  | Order Status |
|  | 70 | CE | O | N |  |  | Order Priority |
|  | 14 | TS | R | N |  |  | Order Date/Time |
|  | 14 | TS | R | N |  |  | Episode date/time |
|  | 14 | TS | R | N |  |  | Encounter date/time |
|  | 100 | CE | O | N |  |  | Entered By |
|  | 100 | CE | O | N |  |  | Verified By |
|  | 100 | CE | O | N |  |  | Ordering Provider |
|  | 250 | GC | R | N |  |  | Ordering Provider Designation |
|  | 120 | CE | R | N |  |  | Ordering Department/discipline |
|  | 120 | CE | O | N |  |  | Ordering sub-discipline |
|  | 15 | ST | O | N |  |  | Call back phone number |
|  | 220 | CE | R | N |  |  | Ordering Health Facility |
|  | 30 | ST | O | N |  |  | Ordering facility address-1 |
|  | 30 | ST | O | N |  |  | Ordering facility address-2 |
|  | 30 | ST | O | N |  |  | Ordering facility address-3 |
|  | 250 | GC | O | N |  |  | Ordering facility town |
|  | 250 | GC | 0 | N |  |  | Ordering facility district |
|  | 250 | GC | O | N |  |  | Ordering facility state |
|  | 250 | GC | O | N |  |  | Ordering facility country |
|  | 8 | ST | O | N |  |  | Ordering facility postcode |
|  | 15 | ST | O | N |  |  | Ordering facility phone number |
|  | 120 | CE | R | N |  |  | Provider Department/discipline |
|  | 120 | CE | O | N |  |  | Provider sub-discipline |
|  | 120 | CE | R | N |  |  | Provider Health Facility |
|  | 30 | ST | O | N |  |  | Provider facility address-1 |
|  | 30 | ST | O | N |  |  | Provider facility address-2 |
|  | 30 | ST | O | N |  |  | Provider facility address-3 |
|  | 250 | GC | O | N |  |  | Provider facility town |
|  | 250 | GC | O | N |  |  | Provider facility district |
|  | 250 | GC | O | N |  |  | Provider facility state |
|  | 250 | GC | O | N |  |  | Provider facility country |
|  | 8 | ST | O | N |  |  | Provider facility postcode |
|  | 15 | ST | O | N |  |  | Provider facility phone number |
|  | 250 | ST | O | N |  |  | Comments |

Figure 12: Common Order Segment

ORC Definition:

1. Transaction code (F00361)

Definition : This field contains the transaction code for order entry i.e T12100 – Treatment order.

1. Placer Order Number (F01975)

Definition: This field is the placer application’s order number. The number is the combination of health facility code(8 character), Year (YY) and sequence number (8 character). The format for this number is HFCYY99999999.

1. Filler Order Number (F02035)

Definition: This field is the order number associated with the filling application. The number is the combination of health facility code(8 character), Year (YY) and sequence number (8 character). The format for this number is HFCYY99999999.

1. Order Status (F01528)

Component : <Order status code>^<Order status name>^<Coding standard>

Coding standard : UD

Definition: This field identifies the status of an order either upon request or when the status changes. Recommended values are:

|  |  |
| --- | --- |
| **Value** | **Description** |
| NO | New order |
| CA | Order was canceled |
| CM | Order is completed |
| IP | In progress |
| RP | Order has been replaced |

1. Order Priority (F02013)

Component : <Order priority code>^<Order priority name>^<Coding standard>

Coding standard : UD

Definition: This field contains the urgency of each order.

1. Order Date/Time (F01531)

Definition: This field contains the date and time upon order is issued.

1. Episode Date/Time (F01380)

Definition: This field contains the date and time upon the patient’s visit.

1. Encounter Date/Time (F01550)

Definition: This field contains the date and time upon the session between patient and a health care provider which services are provided.

1. Entered By

Component : <Entered by code (ST - F00878)>^<Entered by name (ST- F00673) >^<Coding standard>

Coding standard : UD

Definition : This field contains the identity code and name of the person who actually keyed the request into the application

1. Verified By

Component : <Verified by code (ST - F00225)>^<Verified by name (ST - F02014)>^<Coding standard>

Coding standard : UD

Definition: This field contains the identity code and name of the person who verified the accuracy of the entered request. It is used in cases where the request is entered by a technician and needs to be verified by a higher authority (e.g., a nurse).

1. Ordering Provider

Component : Ordering provider code (ST - F00672)>^<Ordering provider name (ST - F02015)>^<Coding standard>

Coding standard : UD

Definition: This field contains the person’s identity who responsible for creating the request (i.e., ordering physician)

1. Ordering Provider Designation (F00786)

Component: <010>^<Detail reference code>^<Description>

Definition: This field contains the person’s designation who responsible for creating the request (i.e. Medical Officer)

1. Ordering department/discipline

Component : <Discipline code (ST - F01367)>^<Discipline name (ST - F01432)>^<Coding standard>

Coding standard : UD

Definition: This field specifies the department where the person who entered the request was physically located such as discipline.

1. Ordering subdiscipline

Component : <Subdiscipline code (ST- F01368)>^<Subdiscipline name (ST - F01433)>^<Coding standard>

Coding standard : UD

Definition: This field specifies the subdiscipline where the person who entered the request was physically located.

1. Call back phone number (F02016)

Definition : The telephone number to call for clarification of a request.

1. Ordering Health Facility

Component : <Health facility code (ST - F01343)>^<Health facility name (ST - F01385)>^<Coding standard>

Coding standard : UD

Definition : This field contains the health facility where the order is issued.

1. Ordering facility address-1 (F00193)

Definition : This field contains the first line of address of the healthcare facility placing the order.

1. Ordering facility address-2 (F01348)

Definition : This field contains the second line of address of the healthcare facility placing the order.

1. Ordering facility address-3 (F01349)

Definition : This field contains the third line of address of the healthcare facility placing the order.

1. Ordering facility town (F01350)

Component: <003>^<Detail reference code>^Description>

Definition : This field contains the town code and description of the healthcare facility placing the order.

1. Ordering facility district (F01761)

Component: <088>^<Detail reference code>^Description>

Definition : This field contains the district code and description of the healthcare facility placing the order.

1. Ordering facility state code (F01351)

Component: <002>^<Detail reference code>^Description>

Definition: This field contains the state code and description of the healthcare facility placing the order.

1. Ordering facility country code (F00017)

Component: <001>^<Detail reference code>^Description>

Definition: This field contains the country code and description of the healthcare facility placing the order.

1. Ordering facility postcode (F01455)

Definition: This field contains the postcode of the facility placing the order.

1. Ordering facility phone number

Definition: This field contains the phone number of the facility placing the order.

1. Provider department/discipline

Component : <Discipline code (ST - F02019)>^<Discipline name (ST – F02020)>^<Coding standard>

Coding standard : UD

Definition: This field specifies the department where the order is accepted.

1. Provider subdiscipline

Component : <Subdiscipline code (ST - F02021)>^<Subdiscipline name (ST – F02022>^<Coding standard>

Coding standard : UD

Definition: This field specifies the subdiscipline where the order is accepted.

1. Provider Health Facility

Component : <Provider health facility code (ST - F01703)>^<Provider health facility name (ST – F02017)>^<Coding standard>

Coding standard : UD

Definition : This field contains code and description of healthcare facility filling the order.

1. Provider facility address–1 (F02023)

Definition : This field contains the first line of address of the healthcare facility filling the order.

1. Provider facility address-2 (F02024)

Definition : This field contains the second line of address of the healthcare facility filling the order.

1. Provider facility address-3 (F02025)

Definition : This field contains the third line of address of the healthcare facility filling the order.

1. Provider facility town (F02026)

Component: <003>^<Detail reference code>^Description>

Definition : This field contains the town code and description of the healthcare facility filling the order.

1. Provider facility district (F02027)

Component: <088>^<Detail reference code>^Description>

Definition : This field contains the district code and description of the healthcare facility filling the order.

1. Provider facility state (F02028)

Component: <002>^<Detail reference code>^Description>

Definition : This field contains the state code and description of the healthcare facility filling the order.

1. Provider facility country

Component: <001>^<Detail reference code>^Description>

Definition : This field contains the country code and description of the healthcare facility filling the order.

1. Provider facility postcode (F02030)

Definition : This field contains the postcode of the healthcare facility filling the order.

1. Provider facility phone number (02031)

Definition : This field contains the contact number of the healthcare facility filling the order.

1. Comments (F00098)

Definition : This field contains free text notes to the person placing the order.

## *6.3 ORDER DETAIL INFORMATION*

### 6.3.1 Treatment

**Message Format: Treatment order**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| PDI | Patient demographic information |
| [HCS] | Health condition summary |
| [ESS] | Episode summary |
| ORC | Common order information |
|  |  |
| {DTO} | Drug treatment order |

|  |  |
| --- | --- |
| Legend: | { } – at least one or more |
|  | [ ] – optional either zero or more |
|  | {[ ]} – zero or more |

**Sample:**

Msh|^~&|OMS^T12100| <cr>

PDI|pmi\_no|patient\_name|old\_ic\_no|new\_is\_no|….. <cr>

HCS|AB|positif|…. <cr>

ESS|…. <cr>

ORC|T12100|HKJG0001||01^New^||150820029:30:20|150820029:40:20|150820029:40:20|||||01^kajang hospital^| <cr>

DTO|01^KajangHospital^|XE0Ub^Hypertension^CTV3|020204529^Multico Tablet^MDC|T20^Tablet^MDC|066^01^Oral|01^Twice a day^SG|2|250|025^01^milligram|2|8||Please give counselling for this patient<cr>

DTO|01^KajangHospital^|XE0Ub^Hypertension^CTV3|020204529^Paracetamol^MDC|T20^Tablet^MDC|066^01^Oral|01^Twice a day^SG|2|650|025^01^milligram|2|8||Please give counselling for this patient<cr>

**Message Format: Treatment Dispense**

-- reword

The treatment dispense message may be created by the pharmacy/treatment application for each instance of dispensing a drug or treatment to fill an existing order or orders

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| PDI | Patient demographic information |
| ORC | Common order information |
|  |  |
| {DDR} | Drug Dispense |

The ORC must have the filler order number and the transaction code, T12200.

**Message Format: Treatment cancellation**

-- rw

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| PDI | Patient demographic information |
| ORC | Common order information |
|  |  |
| {DCS} | Drug cancellation |

#### 6.3.1.1 Drug Treatment Order - DTO

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 220 | CE | R | Y |  |  | Problem - code |
|  | 234 | CE | R | N |  |  | Requested Drug |
|  | 220 | CE | R | N |  |  | Requested drug form |
|  | 250 | GC | R | N |  |  | Requested drug route |
|  | 220 | CE | R | N |  |  | Requested drug frequency |
|  | 5,2 | NM | R | N |  |  | Requested drug frequency unit |
|  | 7,2 | NM | R | N |  |  | Requested dosage |
|  | 7,2 | NM | R | N |  |  | Requested drug strength |
|  | 250 | GC | R | N |  |  | Requested UOM code |
|  | 3 | NM | R | N |  |  | Requested duration |
|  | 7,2 | NM | O | N |  |  | Requested quantity |
|  | 220 | CE | O | N |  |  | Deliver-to Location |
|  | 250 | ST | O | N |  |  | Requested Notes/Remarks |
|  | 120 | CM | O | N |  |  | Reference Provider Info |
|  |  |  |  |  |  |  | Comments |

Figure 13: Drug Treatment Order Segment

DTO Definition:

1. Problem

Component : <Problem code (ST - F01843)>^<Problem name (ST - F01928)>^<Coding standard>

Coding standard : CTV3

Definition : This field identifies the condition or problem for which the drug/treatment was prescribed. This may repeat if multiple problem are relevant.

1. Requested drug

Component : <Requested drug code (ST - F01800)>^<Requested drug desc (ST - F01801)>^<Coding standard>

Coding standard : MDC

Definition : This field indicates the ordered drug to be given to the patient.

1. Requested drug form

Component : <Requested drug form code (ST - F01784)>^<Requested drug form desc (ST - F01785)>^<Coding standard>

Coding standard : MDC

Definition : This field indicates the manner in which the medication is aggregated for dispensing, e.g., tablet, capsule.

1. Requested drug route code (F01513)

Component : <066>^<Detail Reference Code >^<Description>

Definition : This field indicates the route code and description of the ordered drug.

1. Requested drug frequency

Component : <Requested drug frequency code (ST - F01787)>^<Requested drug frequency form desc (ST - F01788)>^<Coding standard>

Coding standard : SG

Definition : This field identifies the time or condition to use to calculate the rate at which the pharmaceutical is to be administered. For example twice a day or once a week.

1. Requested drug frequency unit (F01677)

Definition : This field identifies the time unit to use to calculate the rate at which the pharmaceutical is to be administered. For example, Amphicillin 250mg 2 tabs 4 times a day. The drug frequency unit would be 4.

1. Requested dosage (F01922)

Definition : This field identifies the give amount. For example Amphicillin 250mg 2 tabs 4 times a day. The dosage would be 2.

1. Requested drug strength (F01981)

Definition : This field identifies the strength of the ordered drug. For example Amphicillin 250mg 2 tabs 4 times a day. The strength would be 250.

1. Requested UOM code (F01923)

Component : <025>^<Detail Reference Code >^<Description>

Definition : This field identifies the unit of the strength. For example Amphicillin 250mg 2 tabs 4 times a day. The strength unit would be milligram.

1. Requested duration (F00893)

Definition : This field identifies how long the drug to be taken.

1. Requested quantity (F01924)

Definition: This field contains the total quantity of the ordered drug. The quantity is based on the standard formula:

|  |
| --- |
| **Quantity = Drug Frequency Unit \* Dosage \* Duration** |

1. Deliver to location

Component : <Deliver-to location code (ST - F01369)>^<Deliver-to location desc (ST - F00944)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the location to which pharmacy provider or treatment supplier is to deliver the drug.

1. Requested notes/remark (F00098)

Definition : This field indicates the free text notes to the person prescribing the medication.

1. Reference Provider Info

Component : <Reference provider code(F01703)>^<Reference provider name (ST - F02017)>^<DisciplineCode (ST - F02019)>^<Discipline name (ST – F02020)>^<Subdiscipline code (ST - F02021)>^<Subdiscipline name (ST – F02022>

Definition : This field contains the healthcare facility, discipline and subdiscipline information for filling the order. This field is used as an identifier to the common order segment.

NOTA: add new field – by umar - 31/03/2014

6.3.1.15 Comments

#### 6.3.1.2 Drug Dispense Result Segment - DDR

--rw

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 234 | CE | R | N |  |  | Requested drug |
|  | 234 | CE | R | N |  |  | Dispense drug – code |
|  | 7,2 | NM | R | N |  |  | Actual drug strength |
|  | 220 | CE | R | N |  |  | Actual drug form |
|  | 250 | GC | O | N |  |  | Actual drug route code |
|  | 220 | CE | R | N |  |  | Actual drug frequency |
|  | 5,2 | NM | R | N |  |  | Actual drug frequency unit |
|  | 7,2 | NM | R | N |  |  | Actual dosage |
|  | 250 | GC | R | N |  |  | Actual UOM |
|  | 3 | NM | R | N |  |  | Actual duration |
|  | 7,2 | NM | O | N |  |  | Actual dispense quantity |
|  | 220 | CE | O | N |  |  | Actual dispense location |
|  | 250 | ST | O | N |  |  | Dispense notes \* |
|  | 14 | TS | R | N |  |  | Dispense date/time |
|  | 100 | CE | O | N |  |  | Dispense provider – id |
|  | 14 | TS | O | N |  |  | Episode date/time |
|  | 1 | ST | O | N |  |  | Transaction Indicator (For LHS) |

Figure 14: Drug Dispense Segment

DDR Definition:

1. Requested drug

Component : <Requested drug code (ST - F01800)>^<Requested drug desc (ST - F01801)>^<Coding standard>

Coding standard : ATC

Definition : This field indicates the ordered drug to be given to the patient.

1. Dispense Drug

Component : <Dispense drug code (ST - F01791)>^<Dispense drug desc (ST - F01792)>^<Coding standard>

Coding standard : MDC

Definition : This field indicates the ordered drug to be given to the patient.

1. Actual drug strength (F01981)

Definition : This field identifies the strength of the dispensed drug. This is the numeric part of the strength. For example Amphicillin 250mg 2 tabs 4 times a day. The strength would be 250.

1. Actual drug form

Component : <Actual drug form code (ST - F01784)>^<Actual drug form desc (ST - F01785)>^<Coding standard>

Coding standard : MDC

Definition : This field indicates the manner in which the medication is aggregated for dispensing, e.g., tablet, capsule.

1. Actual drug route (F01513)

Component : <066>^<Detail Reference Code >^<Description>

Definition : This field indicates the route code and description of the ordered drug.

1. Actual drug frequency

Component : <Actual drug frequency code (ST - F01787)>^<Actual drug frequency form desc (ST - F01788)>^<Coding standard>

Coding standard : SG

Definition : This field identifies the time or condition to use to calculate the rate at which the pharmaceutical is to be administered. For example twice a day or once a week.

1. Actual drug frequency unit (F01677)

Definition : This field identifies the time unit to use to calculate the rate at which the pharmaceutical is to be administered. For example Amphicillin 250mg 2 tabs 4 times a day. The drug frequency unit would be 4.

1. Actual dosage (F01922)

Definition : This field identifies the give amount. For example Amphicillin 250mg 2 tabs 4 times a day. The dosage would be 2.

1. Actual UOM (F00338)

Component : <025>^<Detail Reference Code >^<Description>

Definition : This field identifies the unit of the strength. For example Amphicillin 250mg 2 tabs 4 times a day. The strength unit would be milligram.

1. Actual duration (F00893)

Definition : This field identifies how long the drug to be taken.

1. Actual dispense quantity (F01932)

Definition: This field contains the total quantity of the ordered drug.

1. Actual dispense location

Component : <Dispense counter code (ST - F01539)>^<Dispence counter desc (ST - F01540)>^<Coding standard>

Coding standard : MDC

Definition : This field indicates the manner in which the medication is aggregated for dispensing, e.g., tablet, capsule.

1. Dispense notes (F00098)

Definition : This field contains the free text notes to the person dispensing the medication.

1. Dispense date/time

Definition : This field indicates when the medication is dispensed from the pharmacy.

1. Dispense provider

Component : <Dispense provider code (ST - F01544)>^<Dispense provider name (ST - F00673)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the person dispensing the medication.

1. Episode date/time

Definition: This field contains the date and time for the patient’s visit. It can be used for LHS segment.

1. Transaction Indicator (For LHS)

#### Drug Cancellation Segment – DCS

--rw

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 234 | CE | R | N |  |  | Cancel Drug |
|  | 14 | TS | R | N |  |  | Cancel date/time |
|  | 100 | CE | O | N |  |  | Cancel by |
|  | 250 | ST | O | N |  |  | Cancel notes |
|  | 18 | ST | O | N |  |  | Previous order number |

Figure 15: Drug Cancellation Segment

DCS Definition:

1. Cancel drug

Component : <Cancel drug code (ST - F01800)>^<Cancel drug desc (ST - F01801)>^<Coding standard>

Coding standard : MDC

Definition : This field indicates the canceled drug.

1. Cancel date/time (F01721)

Definition : This field indicates when the medication is canceled.

1. Cancel by

Component : <Cancel by id (ST - F01720)>^<Cancel by name (ST - F00673)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the person canceling the medication.

1. Cancel notes (F02018)

Definition : This field contains the free text notes to the person canceling the medication.

1. Previous order number (F01975)

Definition : This field contains the original order number of the cancelled drug.

### Laboratory

**Message Format: Laboratory order**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| PDI | Patient demographic information |
| [HCS] | Health condition summary |
| [ESS] | Episode summary |
| ORC | Common order information |
|  |  |
| {LIO} | Lab investigation order |

|  |  |
| --- | --- |
| Legend: | { } – at least one or more |
|  | [ ] – optional either zero or more |
|  | {[ ]} – zero or more |

**Message Format: Laboratory result**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| PDI | Patient demographic information |
| ORC | Common order information |
|  |  |
| {LIR} | Laboratory investigation result |

The ORC must have the filler order number and the transaction code, T12201.

**Message Format: Laboratory cancellation**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| PDI | Patient demographic information |
| ORC | Common order information |
|  |  |
| {LIC} | Lab investigation cancellation order |

#### 6.3.2.1 Laboratory Investigation Order segment - LIO

-- rw

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 220 | CE | R | Y |  |  | Problem |
|  | 220 | CE | R | N |  |  | Lab test |
|  | 14 | TS | R | N |  |  | Lab Appointment date/time |
|  | 250 | GC | R | N |  |  | Priority |
|  | 250 | GC | O | N |  |  | Patient condition |
|  | 220 | CE | O | N |  |  | Deliver-to Location |
|  | 250 | ST | O | N |  |  | Requestor notes |
|  | var | CM | O | N |  |  | Reference Provider Info |

Figure 16: Laboratory Investigation Order Segment

LIO Definition:

1. Problem

Component : <Problem code (ST - F01843)>^<Problem name (ST - F01928)>^<Coding standard>

Coding standard : CTV3

Definition : This field identifies the condition or problem for which lab order is issued. This may repeat if multiple problem are relevant.

1. Lab test

Component : <Lab test item code (ST - F01552)>^<Lab test item name (ST - F01553)>^<Coding standard>

Coding standard : ICD10-PCS

Definition : This field indicates the test to be performed.

1. Lab appointment date/time (F01537)

Definition : This field indicates the actual dateand time for the test to be performed.

1. Priority (F01708)

Component : <038>^<Detail reference code>^<Description>

Definition : This field indicates the test priority either stat or routine.

1. Patient condition (F01541)

Component : <096>^<Detail reference code>^<Description>

Definition : This field indicates the patient’s condition when the ordering is issued.

1. Deliver to location

Component : <Deliver-to location code (ST - F01369)>^<Deliver-to location name (ST - F00944)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the location where the specimen is collected.

1. Requestor notes (F01555)

Definition : This field contains the free text notes to the person issuing the lab test.

1. Reference Provider Info

Component : <Reference provider code(F01703)>^<Reference provider name (ST - F02017)>^<DisciplineCode (ST - F02019)>^<Discipline name (ST – F02020)>^<Subdiscipline code (ST - F02021)>^<Subdiscipline name (ST – F02022>

Definition : This field contains the healthcare facility, discipline and subdiscipline information for filling the order. This field is used as an identifier to the common order segment.

#### Laboratory Investigation Result Segment – LIR

-- rw

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 220 | CE | R | N |  | F01552 | Lab test |
|  | 220 | CE | R | N |  | F01565 | Lab test result |
|  | 100 | CE | R | N |  | F01570 | Test perform by id |
|  | 14 | TS | R | N |  | F01569 | Test date |
|  | 250 | ST | O | N |  | F01568 | Test result notes |
|  | 100 | CE | R | N |  | F01571 | Result provided by |
|  | 10 | ST | O | N |  | F01572 | Result date |
|  | 100 | CE | R | N |  | F00225 | Verify by |
|  | 14 | TS | O | N |  | F01946 | Verify date |
|  | 250 | ST | O | N |  | F01575 | Verification Notes |
|  | 14 | TS | O | N |  | F01380 | Episode date/time |
|  | 1 | ST | O | N |  |  | Transaction Indicator (For LHS) |

Figure 17: Laboratory Investigation Result Segment

LIR Definition:

1. Lab test

Component : <Lab test item code (ST - F01552)>^<Lab test item name (ST - F01553)>^<Coding standard>

Coding standard : ICD10-PCS

Definition : This field indicates the test that has been performed.

1. Lab test result

Component : <Lab test result code (ST - F01565)>^<Lab test result name (ST - F01566)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the result of the test that has been performed.

1. Test perform by

Component : <Test perform by id (ST - F01570)>^<Test perform by name (ST - F00673)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the person performing the test.

1. Test date (F01569)

Definition: This field contains the date and time of performing the test.

1. Result provided by

Component : <Result provided by id (ST - F01571)>^<Result provided by name (F02036)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the person providing the test result.

1. Result date (F01572)

Definition : This field indicates the actual date of issuing the test result.

1. Verify by

Component : <Verify by id (ST - F00225)>^<Verify by name (ST - F02037)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the person verifying the test result.

1. Verify date (F01946)

Definition : This field indicates the date of verifying the test result.

1. Verification notes (F01575)

Definition : This field contains the free text notes to the person verifying the test result.

1. Episode date/time

Definition: This field contains the date and time for the patient’s visit. It can be used for LHS segment.

1. Transaction Indicator

#### 6.3.2.3 Lab Investigation Cancellation Segment – LIC

--rw

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 220 | CE | R | N |  |  | Cancel Lab test |
|  | 14 | TS | R | N |  |  | Cancel date/time |
|  | 100 | CE | O | N |  |  | Cancel by |
|  | 250 | ST | O | N |  |  | Cancel notes |
|  | 18 | ST | R | N |  |  | Previous order number |

Figure 18: Lab Investigation Cancellation Segment

LIC Definition:

1. Cancel lab test

Component : <Lab test item code (ST - F01552)>^<Lab test item desc (ST - F01553)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the canceled test item.

1. Cancel date/time (F01721)

Definition : This field indicates when the test is canceled.

1. Cancel by

Component : <Cancel by id (ST - F01720)>^<Cancel by name (ST – F00673)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the person canceling the test.

1. Cancel notes (F02018)

Definition : This field contains the free text notes to the person canceling the test.

1. Previous order number (F01975)

Definition : This field contains the original order number of the cancelled test item.

### 6.3.3 Radiology

**Message Format: Radiology Order**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| PDI | Patient demographic information |
| [HCS] | Health condition summary |
| [ESS] | Episode summary |
| ORC | Common order information |
|  |  |
| {ROS} | Radiology Order |

|  |  |
| --- | --- |
| Legend: | { } – at least one or more |
|  | [ ] – optional either zero or more |
|  | {[ ]} – zero or more |

**Message Format: Radiology Report**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| PDI | Patient demographic information |
| ORC | Common order information |
|  |  |
| {RRS} | Radiology report |

**Message Format: Radiology Cancellation**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| PDI | Patient demographic information |
| ORC | Common order information |
|  |  |
| {ROC} | Radiology cancellation order |

|  |  |
| --- | --- |
| Legend: | { } – at least one or more |
|  | [ ] – optional either zero or more |
|  | {[ ]} – zero or more |

#### 6.3.3.1 Radiology Order Segment - ROS

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 220 | CE | R | Y |  |  | Problem code |
|  | 220 | CE | R | N |  |  | Imaging Investigation |
|  | 14 | TS | R | N |  |  | Imaging Appointment date/time |
|  | 50 | CE | R | N |  |  | Deliver-to location code |
|  | 250 | GC | R | N |  |  | Priority |
|  | 250 | GC | O | N |  |  | Patient condition |
|  | 250 | ST | O | N |  |  | Requestor notes |
|  | var | CM | R | N |  |  | Reference Provider |

Figure 19: Radiology Order Segment

ROS Definition:

1. Problem

Component : <Problem code (ST - F01843)>^<Problem name (ST - F01928)>^<Coding standard>

Coding standard : CTV3

Definition : This field identifies the condition or problem for which investigation order is issued. This may repeat if multiple problem are relevant.

1. Imaging investigation

Component : <Investigation test code (ST - F01552)>^<Investigation test name (ST - F01553)>^<Coding standard>

Coding standard : ICD10-PCS

Definition : This field indicates the investigation test to be performed.

1. Imaging appointment date/time (F01537)

Definition : This field indicates the actual date and time for investigation test to be performed.

1. Deliver to location

Component : <Deliver-to location code (ST - F01369)>^<Deliver-to location name (ST - F00944)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the location of the investigation to be performed.

1. Priority (F01708)

Component : <038>^<Detail reference code>^<Description>

Definition : This field indicates the test priority either stat or routine.

1. Patient condition (F01541)

Component : <096>^<Detail reference code>^<Description>

Definition : This field indicates the patient’s condition when the ordering is issued.

1. Requestor notes (F01555)

Definition : This field contains the free text notes to the person verifying the test result.

1. Reference Provider Info

Component : <Reference provider code(F01703)>^<Reference provider name (ST - F02017)>^<DisciplineCode (ST - F02019)>^<Discipline name (ST – F02020)>^<Subdiscipline code (ST - F02021)>^<Subdiscipline name (ST – F02022>

Definition : This field contains the healthcare facility, discipline and subdiscipline information for filling the order. This field is used as an identifier to the common order segment.

#### 6.3.3.2 Radiology Report Segment - RRS

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 520 | CE | R | N |  | F01552 | Imaging Investigation code |
|  | 520 | CE | R | N |  | F01610 | Imaging Report code |
|  | 100 | CE | R | N |  | F01713 | Perform by id |
|  | 14 | TS | R | N |  | F00395 | Perform date/time |
|  | 100 | CE | R | N |  | F01613 | Report provided |
|  | 14 | TS | O | N |  | F01614 | Report date/time |
|  | 300 | ST | O | N |  | F01612 | Report Notes |

Figure 20: Radiology Report Segment

RRS Definition:

Imaging Investigation

Component : <Investigation test code (ST - F01552)>^<Investigation test name (ST - F01553)>^<Coding standard>

Coding standard : ICD10-PCS

Definition : This field indicates the investigation test that has been performed.

1. Imaging Report

Component : <Imaging report code (ST - F01610)>^<Imaging report name (F01611)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the detail description of investigation report.

1. Perform By

Component : <Perform by id (ST - F01713)>^<Perform by name (ST - F00673)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the person who performing the investigation.

1. Perform date/time (F00395)

Definition : This field indicates the actual date and time performing the investigation.

1. Report provided by

Component : <Report provided by id (ST - F01613)>^<Report provided by name (F02038)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the investigation test to be performed.

1. Report date/time (F01614)

Definition : This field indicates the actual date and time recording the investigation report.

1. Report notes (F01612)

Definition : This field contains the free text notes to the person recording the investigation result.

#### 6.3.3.3 Radiology Cancellation Segment – ROC

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 520 | CE | R | N |  |  | Imaging Investigation |
|  | 14 | TS | R | N |  |  | Cancel date/time |
|  | 100 | CE | O | N |  |  | Cancel by |
|  | 250 | ST | O | N |  |  | Cancel notes |
|  | 18 | ST | O | N |  |  | Previous order number |

Figure 21: Radiology Cancellation Segment

ROC Definition:

1. Imaging investigation

Component : <Imaging investigation code (ST - F01552)>^<Imaging Investigation desc (ST - F01553)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the canceled investigation item.

1. Cancel date/time (F01721)

Definition : This field indicates when the investigation is canceled.

1. Cancel by

Component : <Cancel by id (ST - F01720)>^<Cancel by name (ST – F00673)>^<Coding standard>

Coding standard : UD

Definition : This field indicates the person canceling the investigation.

1. Cancel notes (F02018)

Definition : This field contains the free text notes to the person canceling the investigation.

1. Previous order number (F01975)

Definition : This field contains the original order number of the cancelled investigation item.

### 6.3.4 Patient Referral Information

Patient referral is when a patient is referred by one healthcare entity to another or when a patient inquiry is made between two separate entities, little is known about the information each party requires to identify or cordify the patient.

A referral message is used to support transactions related to the referral of a patient from one healthcare provider to another.

**Message format: Patient Referral Message – T12105**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| [PDI] | Patient demographic information |
| [HCS] | Health condition summary |
| [ESS] | Episode summary |
| PRI | Referral information |
|  |  |
| [{PRD} | Provider data – referring-to |
| {CTD} | Contact data – referring-by |
| ] |  |

**Example:**

Msh|^~&|OMS^txn-code|… <cr>

PDI|pmi\_no|patient\_name|old\_ic\_no|new\_is\_no|….. <cr>

HCS|AB|positif|…. <cr>

ESS|…. <cr>

PRI|…. <cr>

CTD|…. <cr>

PRD|…. <cr>

**Message format: Return Referral Information – *this transaction will be determined later due to unreadiness of BPR and SOP***

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| [MSA] | Message acknowledgement |
| [PDI] | Patient demographic information |
| PRI | Referral information |
|  |  |

#### 6.3.4.1 Referral Information Segment - PRI

This segment represents information that may be useful when sending referrals from the referring provider to the referred-to provider.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 10 | ST | R | N |  |  | Transaction Code |
|  | 18 | ST | R | N |  |  | Placer Order number |
|  | 18 | ST | O | N |  |  | Filler Order Number |
|  | 14 | TS | R | N |  |  | Episode date |
|  | 14 | TS | R | N |  |  | Encounter date |
|  | 1 | ST | O | N |  |  | Referral Status |
|  | 1 | ST | R | N |  |  | Referral Priority |
|  | 3 | String | R | N |  |  | Referral Type |
|  | 2 | String | R | N |  |  | Referral Disposition |
|  | 1 | String | R | N |  |  | Referral Category |
|  | 1 | String | R | N |  |  | Referral Reason |
|  | 10 | TS | O | N |  |  | Effective Date – appointment date |
|  | 10 | TS | O | N |  |  | Expiration Date |
|  | 500 | String | O | N |  |  | Referral Notes |
|  | var | CM | R | N |  |  | Reference Provider |

Figure 22: Referral information segment

PRI Definition:

* + - * 1. Transaction code (F00361)

Definition: This field contains the identifier code for the transaction that the request event is being triggered. This field may contain a code describing the cancel transaction, the delete transaction, the discontinue transaction, the add transaction, or any other code describing the transaction that a specific event is occurring. I.e T12105 – Request Patient Referral.

* + - * 1. Place Order Number (F01975)

Definition: This field is the placer application’s order number. The number is the combination of health facility code(8 character), Year (YY) and sequence number (8 character). The format for this number is HFCYY99999999.

* + - * 1. Filler Order Number (F02035)

Definition: This field is the order number associated with the filling application. The number is the combination of health facility code (8 character), Year (YY) and sequence number (8 character). The format for this number is HFCYY99999999

* + - * 1. Episode Date (F01380)

Definition: This field contains the date and time upon the patient’s visit.

* + - * 1. Encounter Date/Time (F01550)

Definition: This field contains the date and time upon the session between patient and a health care provider which services are provided.

* + - * 1. Referral Status (F02039)

Definition : This field contains the status of the referral as defined by referred-by provider eg. A-Accepted, P-Pending, R-Rejected, E-Expired

* + - * 1. Referral Priority (F02042)

Definition : This field contains the urgency of the referral eg. (S – Stat, A – Asap, R – Routine)

* + - * 1. Referral Type (F02043)

Definition : This field contains the type of the referral eg. (Lab – Laboratory, Rad – Radiology, Med – Medical, Skn – Skilled

* + - * 1. Referral Disposition (F02044)

Definition : This field contains the type of response or action that the referring provider would like from the referred-to provider eg. (Wr – send written report, RP – Return patient after evaluation, AM – assume mgt, So – Second opinion

* + - * 1. Referral Category (F02045)

Definition : This field contains the location at which the referral will take place. Eg. (I – Inpatient, O – Outpatient, A – Ambulatory, E – Emergency)

* + - * 1. Referral Reason (F02046)

Definition : This field contains the reason for which the referral will take place. Eg. (S – Second opinion, P – Patient reference, O – Provider ordered, W – Work load )

* + - * 1. Effective Date (F020470)

Definition : This field contains the date on which the referral is effective or booked

* + - * 1. Expiration Date (F02048)

Definition : This field contains the date on which the referral expires.

* + - * 1. Referral Notes

Definition : This field contain remarks and comments that make by the healthcare professional/referred-by personnel.

* + - * 1. Reference Provider

Component : <Reference provider code(F01703)>^<Reference provider name (ST - F02017)>^<DisciplineCode (ST - F02019)>^<Discipline name (ST – F02020)>^<Subdiscipline code (ST - F02021)>^<Subdiscipline name (ST – F02022>

Definition : This field contains the healthcare facility, discipline and subdiscipline information of provider. This field is used for the purposes of specifying relationship between segment.

#### 6.3.4.2 Contact Data Segment - CTD

The CTD segment may identify any contact personnel associated with a patient referral message and its related transactions. The CTD segment will be paired with a PRD segment. The PRD segment contains data specifically focused on provider information in a referral. While it is important in an inter-enterprise transaction to transmit specific information regarding the providers involved (referring and referred-to), it may also be important to identify the contact personnel associated with the given provider. For example, a provider receiving a referral may need to know the office manager or the billing person at the institution of the provider who sent the referral.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 10 | ST | R | N |  |  | Contact ID |
|  | 80 | ST | R | N |  |  | Contact name |
|  | 10 | ST | R | N |  | F01343 | Contact Health Facility Code |
|  | 100 | ST | R | N |  | F01385 | Contact Health Facility name |
|  | 10 | ST | R | N |  | F01367 | Contact Department/discipline code |
|  | 100 | ST | R | N |  | F01432 | Contact Department/discipline name |
|  | 10 | ST | O | N |  | F01368 | Contact sub-discipline code |
|  | 100 | ST | O | N |  | F01433 | Contact sub-discipline name |
|  | 30 | ST | O | N |  | F00193 | Contact address-1 |
|  | 30 | ST | O | N |  | F01348 | Contact address-2 |
|  | 30 | ST | O | N |  | F01349 | Contact address-3 |
|  | 250 | GC | O | N |  | F01350 | Contact town |
|  | 250 | GC | O | N |  | F01761 | Contact district |
|  | 250 | GC | O | N |  | F01351 | Contact state |
|  | 250 | GC | O | N |  | F00017 | Contact country |
|  | 8 | ST | O | N |  | F01455 | Contact postcode |
|  | 15 | ST | O | N |  | F01444 | Contact phone number |
|  | 50 | ST | O | N |  |  | Contact e-mail address |
|  | var | CM | O | N |  |  | Reference Provider |

Figure 23: Contact Data segment

CTD Definition:

Contact ID (F02049)

Definition : This field contains the ID of the contact person

1. Contact Name (F02050)

Definition : This field contains the full name of the contact person. Generally, this field will describe a person or provider associated with the referral

1. Contact Health Facility Code (F01343)

Definition : This field contains the health facility code of the contact, which is required when a contact that may be external to a given enterprise must be referenced.

1. Contact Health Facility Name (F01385)

Definition : This field contains the health facility name of the contact, which is required when a contact that may be external to a given enterprise must be referenced.

1. Contact discipline code (F01367)

Definition : This field contains the discipline code of the contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

1. Contact discipline name (F01432)

Definition : This field contains the discipline name of the contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

1. Contact sub discipline code (F01368)

Definition : This field contains the sub discipline code of the contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

1. Contact sub discipline name (F01433)

Definition : This field contains the sub discipline name of the contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

1. Contact Address-1 (F00193), Address-2 (F01348), Address-3 (F01349)

Definition : This field contains the address of the contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

1. Contact Town (F01350)

Definition : This field contains the town code of the contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

1. Contact District (F01761)

Definition : This field contains the district code of the contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

1. Contact State (F01351)

Definition : This field contains the state code of the contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

1. Contact Country (F00017)

Definition : This field contains the country of the contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

1. Contact Post Code (F01455)

Definition : This field contains the post code of the contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

1. Contact Phone Number (F01444)

Definition : This field contains the phone number of the contact, which is required to be used for communicate. This field is optional.

1. Contact e-mail address (F02051)

Definition : This field contains the e-mail address of the contact, which is required to be used for communicate. This field is optional.

* + - * 1. Reference Provider

Component : <Reference provider code(F01703)>^<Reference provider name (ST - F02017)>^<DisciplineCode (ST - F02019)>^<Discipline name (ST – F02020)>^<Subdiscipline code (ST - F02021)>^<Subdiscipline name (ST – F02022>

Definition : This field contains the healthcare facility, discipline and subdiscipline information of provider. This field is used for the purposes of specifying relationship between segment.

#### 6.3.4.3 Provider Segment - PRD

This segment will be employed as part of a patient referral message and its related transactions. The PRD segment contains data specifically focused on a referral, and it is inter-enterprise in nature. The justification for this new segment comes from the fact that we are dealing with referrals that are external to the facilities that received them. The information contained in the PRD segment will include the referring provider, the referred‑to provider, the referred‑to location or service, and the referring provider clinic address.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 10 | ST | R | N |  |  | Provider ID |
|  | 80 | ST | R | N |  |  | Provider name |
|  | 10 | ST | R | N |  |  | Provider Health Facility Code |
|  | 100 | ST | O | N |  |  | Provider Health Facility name |
|  | 10 | ST | R | N |  |  | Provider Department/discipline code |
|  | 100 | ST | O | N |  |  | Provider Department/discipline name |
|  | 10 | ST | R | N |  |  | Provider sub-discipline code |
|  | 100 | ST | O | N |  |  | Provider sub-discipline name |
|  | 30 | ST | O | N |  |  | Provider address-1 |
|  | 30 | ST | O | N |  |  | Provider address-2 |
|  | 30 | ST | O | N |  |  | Provider address-3 |
|  | 250 | GC | O | N |  |  | Provider town |
|  | 250 | GC | 0 | N |  |  | Provider district |
|  | 250 | GC | O | N |  |  | Provider state |
|  | 250 | GC | O | N |  |  | Provider country |
|  | 8 | ST | O | N |  |  | Provider postcode |
|  | 15 | ST | O | N |  |  | Provider phone number |
|  | 50 | ST | O | N |  |  | Provider e-mail address |
|  | Var | CM | R | N |  |  | Reference Provider |

Figure 24: Provider data segment

PRD Definition:

* + - * 1. Provider ID (F02040)

Definition : This field contains the ID of the provider

* + - * 1. Provider Name(F02041)

Definition : This field contains the full name of the provider. Generally, this field will describe a person or provider associated with the referral

* + - * 1. Provider Health Facility Code (F01343)

Definition : This field contains the health facility code of the provider, which is required when a contact that may be external to a given enterprise must be referenced.

* + - * 1. Provider Health Facility Name (F01385)

Definition : This field contains the health facility name of the provider, which is required when a contact that may be external to a given enterprise must be referenced.

* + - * 1. Provider discipline code (F01367)

Definition : This field contains the discipline code of the provider, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

* + - * 1. Provider discipline name (F01432)

Definition : This field contains the discipline name of the provider, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

* + - * 1. Provider sub discipline code (F01368)

Definition : This field contains the sub discipline code of the provider, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

* + - * 1. Provider sub discipline name (F01433)

Definition : This field contains the sub discipline name of the provider, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

* + - * 1. Provider Address-1 (F00193), Address-2 (F01348), Address-3 (F01349)

Definition : This field contains the address of the provider, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

* + - * 1. Provider Town (F01350)

Definition : This field contains the town code of the provider, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

* + - * 1. Provider District (F01761)

Definition : This field contains the district code of the rovider, which is required when a provider that may be external to a given enterprise must be referenced. This field is optional.

* + - * 1. Provider State (F01351)

Definition : This field contains the state code of the provider, which is required when a provider that may be external to a given enterprise must be referenced. This field is optional.

* + - * 1. Provider Country (F00017)

Definition : This field contains the country of the provider, which is required when a provider that may be external to a given enterprise must be referenced. This field is optional.

* + - * 1. Provider Post Code (F01455)

Definition : This field contains the post code of the provider, which is required when a provider that may be external to a given enterprise must be referenced. This field is optional.

* + - * 1. Provider Phone Number (F01444)

Definition : This field contains the phone number of the provider, which is required to be used for communicate. This field is optional.

* + - * 1. Provider e-mail address (F02052)

Definition : This field contains the e-mail address of the provider, which is required to be used for communicate. This field is optional.

* + - * 1. Reference Provider

Component : <Reference provider code(F01703)>^<Reference provider name (ST - F02017)>^<DisciplineCode (ST - F02019)>^<Discipline name (ST – F02020)>^<Subdiscipline code (ST - F02021)>^<Subdiscipline name (ST – F02022>

Definition : This field contains the healthcare facility, discipline and subdiscipline information of provider. This field is used for the purposes of specifying relationship between segment.

### 6.3.5 Surgical Medical Procedure

The Surgical Medical Procedure segment contains information relative to various types of procedures that can be performed on a patient. The POS segment can be used to send procedure information, for example: Surgical, Nuclear Medicine, X‑ray with contrast, etc. The POS segment is used to send multiple procedures, for example, for medical records encoding or for billing systems. The requested surgical medical procedure is used by using the MOH’s Akta Fee.

Assign or response the actual procedure requested is done at operation theatre by the surgeon. The actual procedure performed during the operation will be captured by the surgeon and the standard procedure code of ICD10-PCS is used for that purpose.

**Message format: Surgical Medical Procedure Order**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| [PDI] | Patient demographic information |
| [HCS] | Health condition summary |
| [ESS] | Episode summary |
| ORC | Order Common Request |
| { |  |
| POS | Procedure Order |
| } |  |
| BLI | Billing header segment – pls hold this 1st and will include in the next iteration |
| { |  |
| BLD | Itemised bill segment – next iteration |
| } |  |

**Message format: Assign/Response Procedure**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| [PDI] | Patient demographic information |
| ORC | Order Common Request |
| { |  |
| ARP | Assign/Response Procedure |
| } |  |
| BLI | Billing header segment – pls hold this 1st and will include in the next iteration |
| { |  |
| BLD | Itemised bill segment - next iteration |
| } |  |

#### 6.3.5.1 Procedure Order Segment – POS

This segment provide the information of sugical medical procedure that requested by the healthcare professional such as GPs’ and etc

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 520 | CE | O | Y |  |  | Problem Code (CTV3) |
|  | 350 | CE | R | N |  |  | Requested Procedure code |
|  | 10 | TS | R | N |  |  | Requested Procedure Date/Time |
|  | 1 | ST | R | N |  |  | Procedure Priority |
|  | 250 | GC | O | N |  |  | Patient condition |
|  | 8 | ST | O | N |  |  | Requested Surgeon ID |
|  | 80 | ST | O | N |  |  | Requested Surgeon Name |
|  | 1 | ST | O | N |  |  | Consent Code |
|  | 10 | ST | O | N |  |  | Requested Location code |
|  | 200 | ST | O | N |  |  | Requested Location name |
|  | 250 | ST | O | N |  |  | Requestor notes |
|  | 10 | ST | R | N |  |  | Provider Health Facility Code |

Figure 25: Procedure Order Attributes

POS Definition:

* + - * 1. Problem Code

Component <problem cd (ST- F01843)> ^ <problem desc (ST – F01928))> ^ < name of coding system (ST)>

Coding standard: CTV3

Eg. …|X.001^ Continuous fever^CTV3|…

Definition : This field contains the problem code that related to the procedure to be ordered. The problem code is based on standard Read Term (CTV3). Problem is categorised from diagnosis, symptom, social history and disability.

* + - * 1. Requested Procedure Code

Component <procedure cd (ST - F02053))> ^ <procedure desc (ST - F02054))> ^ <name of coding system (ST)>

Coding standard : ICD10 PCS

Eg. …|L.001^ Liver resection^AKTA FEE|…

Definition : This field contains a unique identifier assigned to the procedure. This field is a CE data type which consist of three required components.

* + - * 1. Requested Procedure Date/Time (F02055)

Definition : This field contains the date/time that the procedure was performed. Normally the date is get from the appointment schedule.

* + - * 1. Procedure Priority (F02056)

Definition : This field contains a code that identifies the significance or priority of the procedure. Refer to TB009 in Section 8 for the recommended code to be used.

* + - * 1. Patient Condition (F02057)

Definition : This field contains a code that identifies the condition of the patient. Refer to TB013 in Section 8 for the recommended code to be used.

* + - * 1. Requested Surgeon ID (F02058)

Definition : This field contains the requested surgeon’s ID who performed the procedure.

* + - * 1. Requested Surgeon Name (F02059)

Definition : This field contains the requested surgeon’s name who performed the procedure.

* + - * 1. Consent Code (F02060)

Definition : This field contains the type of consent that was obtained for permission to treat the patient. The code will be determined later …

* + - * 1. Requested Location Code (F02061

Definition : This field contains the code of location that the procedure to be performed

* + - * 1. Requested Location Name (F02062)

Definition : This field contains the name of location that the procedure to be performed

* + - * 1. Requestor Notes (F02063)

Definition : This field contains the notes/remarks that recorded by the requester.

* + - * 1. Receiving Health Facility Code (F02064)

Definition : This field contains the receiving healthcare facility code which to be used for relationship identifier with ORC segment.

#### 6.3.5.2 Assigned/Response Procedure Segment – ARP

This segment provide the information of sugical medical procedure that performed by the procedure practitioner or surgeon. The information of procedure is captured by using the actual procedure being done during the operation. ICD10-PCS code is used for unique identifier of the procedure performed.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 350 | CE | R | N |  |  | Actual Procedure code |
|  | 10 | TS | R | N |  |  | Actual Procedure Date/Time |
|  | 2 | NM | O | N |  |  | Actual Procedure Minutes |
|  | 350 | CE | O | N |  |  | Associated Diagnosis Code |
|  | 8 | ST | O | N |  |  | Actual Surgeon ID |
|  | 80 | ST | O | N |  |  | Actual Surgeon Name |
|  | 10 | ST | O | N |  |  | Actual Location code |
|  | 200 | ST | O | N |  |  | Actual Location name |
|  | 250 | ST | O | N |  |  | Surgeon notes |
|  | 10 | ST | R | N |  |  | Provider Health Facility Code |
|  | 14 | TS | O | N |  | F01380 | Episode date |

Figure 26: Assigned/response procedure segment

ARP Definition:

* 1. Actual Procedure Code

Component <procedure cd (ST)> ^ <procedure desc (ST)> ^ <name of coding system (ST)>

Eg. …|01234567^ Drainage^ICD10-PCS|…

Definition : This field contains a unique identifier assigned to the procedure. This field is a CE data type which consist of three required components. Actual procedure code is based on standard ICD10-PCS coding system.

* 1. Actual Procedure Date/Time

Definition : This field contains the actual date/time that the procedure was performed.

* 1. Actual Procedure Minutes

Definition : This field indicates the length of time in whole minutes that the procedure took to complete

* 1. Associated Diagnosis Code

Definition : This field contains the diagnosis which is the primary reason this procedure was performed, e.g., Medicare wants to know for which diagnosis this procedure is submitted for inclusion on reports.

* 1. Actual Surgeon ID

Definition : This field contains the surgeon’s ID who performed the procedure.

* 1. Actual Surgeon Name

Definition : This field contains the surgeon’s name who performed the procedure.

* 1. Actual Location Code

Definition : This field contains the code of actual location that the procedure to be performed

* 1. Actual Location Name

Definition : This field contains the name of actual location name that the procedure to be performed

* 1. Surgeon Notes

Definition : This field contains the notes/remarks that recorded by the surgeon.

* 1. Receiving Health Facility Code

Definition : This field contains the receiving healthcare facility code which to be used for relationship identifier with ORC segment.

### 6.3.6 Scheduling

The scheduling message is communicating between transactions related to the scheduling of *appointments for services* or for the *use of resources*.

The goal of this specification is to facilitate the communication of scheduling requests and information between applications. Such communication involves three main subjects: *Schedules, appointments*, and *services and resources*.

Schedules control the occurrence of certain services and the use of particular resources. They consist of a set of open, booked and blocked slots for one particular service or resource. Open slots are periods of time on schedule during which a service may occur, and/or a resource is available for use. Booked slots are periods of time on a schedule that have already been reserved.

Appointments occupy sets of one or more booked slots on a schedule. They describe the nature of the service and/or the use of the resource, the person or persons responsible for the appointment’s booking, and other information relevant to the booking and execution of an appointment. Blocked slots on a schedule are periods of time during which a service or resource is unavailable for reasons other than booked appointments.

**Message format: Schedule Request Message**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| [PDI] | Patient demographic information |
| [HCS] | Health condition summary |
| [ESS] | Episode summary |
| ARQ | Appointment request information |
|  |  |
| {RGS | Resources group segment |
| [{AIS} | Appointment information – service |
| {AIG} | Appointment information – general resource |
| {AIL} | Appointment information – location resources |
| {AIP} | Appointment information – personnel resource |
| ] |  |
| } |  |

**Message format: Scheduled Request Response**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| [MSA] | Message acknowledgement |
| [ERR] | Error information |
| [PDI] | Patient demographic information |
| SCH | Schedule activity information |
|  |  |
| {RGS | Resources group segment |
| [{AIS | Appointment information – service |
| {AIG} | Appointment information – general resource |
| {AIL} | Appointment information – location resources |
| {AIP} | Appointment information – personnel resource |
| ] |  |
| } |  |

#### 6.3.6.1 Appointment Request Information - ARQ

The ARQ segment defines a request for the booking of an appointment. It is used in transactions sent from an application acting in the role of a placer.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM# | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 10 | ST | R | N |  | F00361 | Transaction Code |
|  | 18 | ST | R | N |  |  | Placer Order Number |
|  | 18 | ST | O | N |  |  | Filler Order Number |
|  | 10 | ST | O | N |  |  | Appointment Reason Code |
|  | 10 | ST | O | N |  |  | Appointment Type Code |
|  | 3 | NM | O | N |  |  | Appointment Duration |
|  | 10 | ST | O | N |  |  | Appointment Duration Units |
|  | 14 | TS | R | N |  |  | Requested Start Date/Time Range |
|  | 1 | ST | O | N |  |  | Appointment Priority |
|  | 8 | ST | R | N |  |  | Placer Contact ID |
|  | 80 | ST | R | N |  |  | Placer Contact Name |
|  | 15 | ST | R | N |  |  | Placer Contact Phone Number |
|  | 50 | ST | O | N |  |  | Placer Contact E-Mail Address |
|  | 10 | ST | R | N |  | F01343 | Placer Contact Health Facility Code |
|  | 100 | ST | O | N |  | F01385 | Placer Contact Health Facility name |
|  | 10 | ST | R | N |  | F01367 | Placer Contact Department/discipline code |
|  | 100 | ST | O | N |  | F01432 | Placer Contact Department/discipline name |
|  | 10 | ST | R | N |  | F01368 | Placer Contact sub-discipline code |
|  | 100 | ST | O | N |  | F01433 | Placer Contact sub-discipline name |
|  | 30 | ST | O | N |  | F00193 | Placer Contact address-1 |
|  | 30 | ST | O | N |  | F01348 | Placer Contact address-2 |
|  | 30 | ST | O | N |  | F01349 | Placer Contact address-3 |
|  | 10 | ST | O | N |  |  | Placer Contact Town |
|  | 10 | ST | O | N |  |  | Placer Contact District |
|  | 10 | ST | O | N |  |  | Placer Contact State |
|  | 10 | ST | O | N |  |  | Placer Contact Country |
|  | 5 | ST | O | N |  |  | Placer Contact Post Code |
|  | 8 | ST | R | N |  |  | Entered By Person ID |
|  | 80 | ST | R | N |  |  | Entered By Person Name |
|  | 15 | ST | R | N |  |  | Entered By Phone Number |
|  | 50 | ST | O | N |  |  | Entered BY E-Mail Address |
|  | 10 | ST | R | N |  | F01343 | Entered By Health Facility Code |
|  | 100 | ST | O | N |  | F01385 | Entered By Health Facility name |
|  | 10 | ST | R | N |  | F01367 | Entered By Department/discipline code |
|  | 100 | ST | O | N |  | F01432 | Entered By Department/discipline name |
|  | 10 | ST | R | N |  | F01368 | Entered By sub-discipline code |
|  | 100 | ST | O | N |  | F01433 | Entered By sub-discipline name |
|  | 30 | ST | O | N |  | F00193 | Entered By address-1 |
|  | 30 | ST | O | N |  | F01348 | Entered By address-2 |
|  | 30 | ST | O | N |  | F01349 | Entered By address-3 |
|  | 10 | ST | O | N |  |  | Entered By Town |
|  | 10 | ST | O | N |  |  | Entered By District |
|  | 10 | ST | O | N |  |  | Entered By State |
|  | 10 | ST | O | N |  |  | Entered By Country |
|  | 5 | ST | O | N |  |  | Entered By Post Code |

Figure 27: Appointment Request Segment

ARQ Definition:

6.3.6.1.1 Transaction Code

Definition: This field contains the identifier code for the transaction that the request event is being triggered. This field may contain a code describing the cancel transaction, the delete transaction, the discontinue transaction, the add transaction, or any other code describing the transaction that a specific event is occurring. I.e T12106 – Request for appointment

6.3.6.1.2 Place Order Number

Definition: This field is the placer application’s order number. The number is the combination of health facility code(8 character), Year (YY) and sequence number (8 character). The format for this number is HFCYY99999999.

6.3.6.1.3 Filler Order Number

Definition: This field is the order number associated with the filling application. The number is the combination of health facility code (8 character), Year (YY) and sequence number (8 character). The format for this number is HFCYY99999999

6.3.6.1.4 Appointment Reason Code

Definition: This field contains the identifier code for the reason that the appointment is to take place. Refer to TB007 in Section 8 for the recommended code to be used.

6.3.6.1.5 Appointment Type Code

Definition : This field contains an identifier code for the type of appointment being requested. Refer to table TB008 in section 8 for the recommended code to be used.

6.3.6.1.6 Appointment Duration

Definition : This field contains the amount of time being requested for the appointment. The appointment duration field must contain a positive and non-zero number. The field is optional.

6.3.6.1.7 Appointment Duration Units

Definition : This field contains a code describing the units of time used. The field is optional.

* + - * 1. Requested Start Date/Time Range

Components: <range start date/time (TS)> ^ <range end date/time (TS)>

Definition : This field contains the date and time that the appointment is requested to begin, in the form of a date/time range. The first component contains the earliest date and time that the appointment may be scheduled to begin. The second component contains the latest date and time that the appointment may be scheduled to begin.

Examples :

Schedule the appointment to begin at some time between 8.00AM on Tuesday, May 17th, 2002 and 12:00PM on Friday, May 20th, 2002 local time:

**…|170520020800^2005200201200|…**

* + - * 1. Appointment Priority

Definition : This field contains the urgency of the request. Refer to TB009 in section 8 for priority type.

* + - * 1. Placer Contact ID

Definition : This field identifies the person responsible for requesting the scheduling of a requested appointment. This person could be the same person responsible for executing the actual appointment, or it could be the provider requesting that an appointment be made on behalf of the patient, with the another provider

* + - * 1. Placer Contact Name

Definition : This field contains the full name of the contact person ID.

6.3.6.1.12 Placer Contact Phone Number

Definition : This field contains the phone number of the placer contact, which is required to be used for communicate. This field is optional.

6.3.6.1.13 Placer Contact e-mail address

Definition : This field contains the e-mail address of the placer contact, which is required to be used for communicate. This field is optional.

6.3.6.1.14 Placer Contact Health Facility Code

Definition : This field contains the health facility code of the placer contact.

6.3.6.1.15 Placer Contact Health Facility name

Definition : This field contains the health facility name of the placer contact person.

6.3.6.1.16 Placer Contact department/discipline code

Definition: This field contains a code that identifies the department/discipline of the placer contact person

6.3.6.1.17 Placer Contact department/discipline name

Definition: This field contains a name that identifies the department/discipline of the placer contact person

6.3.6.1.18 Placer Contact subdiscipline code

Definition: This field contains a code that identifies the subdiscipline of the placer contact person

6.3.6.1.19 Placer Contact subdiscipline name

Definition: This field contains a name that identifies the subdiscipline of the placer contact person

6.3.6.1.20 Placer Contact Address-1, Address-2, Address-3

Definition : This field contains the address of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.1.21 Placer Contact Town

Definition : This field contains the town code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.1.22 Placer Contact District

Definition : This field contains the district code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.1.23 Placer Contact State

Definition : This field contains the state code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.1.24 Placer Contact Country

Definition : This field contains the country of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

* + - * 1. Placer Contact Post Code

Definition : This field contains the post code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.1.26 Entered By Person ID

Definition : This field identifies the person responsible for entering the request for the scheduling of an appointment.

6.3.6.1.27 Entered By Person Name

Definition : This field contains the full name of the person responsible for entering the request for the scheduling of an appointment.

6.3.6.1.28 Entered By Phone Number

Definition : This field contains the phone number used to contact the entered by person.

6.3.6.1.29 Entered By E-Mail Address

Definition : This field contains the e-mail adress used to contact the entered by person.

6.3.6.1.30 Entered By Health Facility Code

Definition : This field contains the health facility code of the entered by person

6.3.6.1.31 Entered By Health Facility name

Definition : This field contains the health facility name of the entered by person

6.3.6.1.32 Entered By department/discipline code

Definition: This field contains a code that identifies the department/discipline of the entered by person

6.3.6.1.33 Entered By department/discipline name

Definition: This field contains a name that identifies the department/discipline of the entered by person

6.3.6.1.34 Entered By subdiscipline code

Definition: This field contains a code that identifies the subdiscipline of the entered by person

6.3.6.1.35 Entered By subdiscipline name

Definition: This field contains a name that identifies the subdiscipline of the entered by person

6.3.6.1.36 Entered By Address-1, Address-2, Address-3

Definition : This field contains the address of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.1.37 Entered By Town

Definition : This field contains the town code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.1.38 Entered By District

Definition : This field contains the district code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional

6.3.6.1.39 Entered By State

Definition : This field contains the state code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.1.40 Entered By Country

Definition : This field contains the country of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.1.41 Entered By Post Code

Definition : This field contains the post code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

#### 6.3.6.2 Schedule Activity Information Segment - SCH

The SCH segment contains general information about the scheduled appointment.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM# | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 10 | ST | R | N |  | F00361 | Transaction Code |
|  | 18 | ST | R | N |  |  | Placer Order Number |
|  | 18 | ST | O | N |  |  | Filler Order Number |
|  | 10 | ST | O | N |  |  | Appointment Reason Code |
|  | 10 | ST | O | N |  |  | Appointment Type Code |
|  | 3 | NM | O | N |  |  | Appointment Duration |
|  | 10 | ST | O | N |  |  | Appointment Duration Units |
|  | 14 | TS | O | N |  |  | Requested Start Date/Time Range |
|  | 1 | ST | O | N |  |  | Appointment Priority |
|  | 8 | ST | R | N |  |  | Filler Contact ID |
|  | 80 | ST | R | N |  |  | Filler Contact Name |
|  | 15 | ST | O | N |  |  | Filler Contact Phone Number |
|  | 50 | ST | O | N |  |  | Filler Contact E-Mail Address |
|  | 10 | ST | R | N |  | F01343 | Filler Contact Health Facility Code |
|  | 100 | ST | O | N |  | F01385 | Filler Contact Health Facility name |
|  | 10 | ST | R | N |  | F01367 | Filler Contact Department/discipline code |
|  | 100 | ST | O | N |  | F01432 | Filler Contact Department/discipline name |
|  | 10 | ST | R | N |  | F01368 | Filler Contact sub-discipline code |
|  | 100 | ST | O | N |  | F01433 | Filler Contact sub-discipline name |
|  | 30 | ST | O | N |  | F00193 | Filler Contact address-1 |
|  | 30 | ST | O | N |  | F01348 | Placer Contact address-2 |
|  | 30 | ST | O | N |  | F01349 | Filler Contact address-3 |
|  | 10 | ST | O | N |  |  | Filler Contact Town |
|  | 10 | ST | O | N |  |  | Filler Contact District |
|  | 10 | ST | O | N |  |  | Filler Contact State |
|  | 10 | ST | O | N |  |  | Filler Contact Country |
|  | 5 | ST | O | N |  |  | Filler Contact Post Code |
|  | 8 | ST | R | N |  |  | Entered By Person ID |
|  | 80 | ST | R | N |  |  | Entered By Person Name |
|  | 15 | ST | O | N |  |  | Entered By Phone Number |
|  | 50 | ST | O | N |  |  | Entered BY E-Mail Address |
|  | 10 | ST | R | N |  | F01343 | Entered By Health Facility Code |
|  | 100 | ST | O | N |  | F01385 | Entered By Health Facility name |
|  | 10 | ST | R | N |  | F01367 | Entered By Department/discipline code |
|  | 100 | ST | O | N |  | F01432 | Entered By Department/discipline name |
|  | 10 | ST | R | N |  | F01368 | Entered By sub-discipline code |
|  | 100 | ST | O | N |  | F01433 | Entered By sub-discipline name |
|  | 30 | ST | O | N |  | F00193 | Entered By address-1 |
|  | 30 | ST | O | N |  | F01348 | Entered By address-2 |
|  | 30 | ST | O | N |  | F01349 | Entered By address-3 |
|  | 10 | ST | O | N |  |  | Entered By Town |
|  | 10 | ST | O | N |  |  | Entered By District |
|  | 10 | ST | O | N |  |  | Entered By State |
|  | 10 | ST | O | N |  |  | Entered By Country |
|  | 5 | ST | O | N |  |  | Entered By Post Code |
|  | 10 | ST | O | N |  |  | Filler Status Code |

Figure 28: Scheduling Activity Segment

SCH Definition:

6.3.6.2.1 Transaction Code

Definition: This field contains the identifier code for the transaction that the request event is being triggered. This field may contain a code describing the cancel transaction, the delete transaction, the discontinue transaction, the add transaction, or any other code describing the transaction that a specific event is occurring. I.e T12100 – Treatment order.

6.3.6.2.2 Place Order Number

Definition: This field is the placer application’s order number. The number is the combination of health facility code(8 character), Year (YY) and sequence number (8 character). The format for this number is HFCYY99999999.

6.3.6.2.3 Filler Order Number

Definition: This field is the order number associated with the filling application. The number is the combination of health facility code (8 character), Year (YY) and sequence number (8 character). The format for this number is HFCYY99999999

6.3.6.2.4 Appointment Reason Code

Definition: This field contains the identifier code for the reason that the appointment is to take place. Refer to Table-8 in Section 8 for the recommended code to be used.

6.3.6.2.5 Appointment Type Code

Definition : This field contains an identifier code for the type of appointment being requested. Refer to table TB008 in section 8 for the recommended code to be used.

6.3.6.2.6 Appointment Duration

Definition : This field contains the amount of time being requested for the appointment. The appointment duration field must contain a positive and non-zero number. The field is optional.

6.3.6.2.7 Appointment Duration Units

Definition : This field contains a code describing the units of time used. The field is optional.

6.3.6.2.8 Requested Start Date/Time Range

Components: <range start date/time (TS)> ^ <range end date/time (TS)>

Definition : This field contains the date and time that the appointment is requested to begin, in the form of a date/time range. The first component contains the earliest date and time that the appointment may be scheduled to begin. The second component contains the latest date and time that the appointment may be scheduled to begin.

Examples :

Schedule the appointment to begin at some time between 8.00AM on Tuesday, May 17th, 2002 and 12:00PM on Friday, May 20th, 2002 local time:

**…|170520020800^2005200201200|…**

6.3.6.2.9 Appointment Priority

Definition : This field contains the urgency of the request. Refer to TB009 in section 8 for priority type.

6.3.6.2.10 Placer Contact ID

Definition : This field identifies the person responsible for requesting the scheduling of a requested appointment. Most often, this person will be same person responsible for executing the appointment

* + - * 1. Placer Contact Name

Definition : This field contains the full name of the contact person ID.

6.3.6.2.13 Placer Contact Phone Number

Definition : This field contains the phone number of the placer contact, which is required to be used for communicate. This field is optional.

6.3.6.2.14 Placer Contact e-mail address

Definition : This field contains the e-mail address of the placer contact, which is required to be used for communicate. This field is optional.

6.3.6.2.15 Placer Contact Health Facility Code

Definition : This field contains the health facility code of the placer contact.

6.3.6.2.16 Placer Contact Health Facility name

Definition : This field contains the health facility name of the placer contact person.

6.3.6.2.17 Placer Contact department/discipline code

Definition: This field contains a code that identifies the department/discipline of the placer contact person

6.3.6.2.18 Placer Contact department/discipline name

Definition: This field contains a name that identifies the department/discipline of the placer contact person

6.3.6.2.19 Placer Contact subdiscipline code

Definition: This field contains a code that identifies the subdiscipline of the placer contact person

6.3.6.2.20 Placer Contact subdiscipline name

Definition: This field contains a name that identifies the subdiscipline of the placer contact person

6.3.6.2.21 Placer Contact Address-1, Address-2, Address-3

Definition : This field contains the address of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.2.22 Placer Contact Town

Definition : This field contains the town code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.2.23 Placer Contact District

Definition : This field contains the district code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.2.24 Placer Contact State

Definition : This field contains the state code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.2.25 Placer Contact Country

Definition : This field contains the country of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.2.26 Placer Contact Post Code

Definition : This field contains the post code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.2.27 Entered By Person ID

Definition : This field identifies the person responsible for entering the request for the scheduling of an appointment. It is included to provide an audit trail of persons responsible for the request.

6.3.6.2.28 Entered By Person Name

Definition : This field contains the full name of the person responsible for entering the request for the scheduling of an appointment.

6.3.6.2.29 Entered By Phone Number

Definition : This field contains the phone number used to contact the entered by person.

6.3.6.2.30 Entered By Address-1, Address-2, Address-3

Definition : This field contains the address of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.2.31 Placer Contact Town

Definition : This field contains the town code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.2.32 Placer Contact District

Definition : This field contains the district code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.2.33 Placer Contact State

Definition : This field contains the state code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.2.34 Placer Contact Country

Definition : This field contains the country of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.2.35 Placer Contact Post Code

Definition : This field contains the post code of the placer contact, which is required when a contact that may be external to a given enterprise must be referenced. This field is optional.

6.3.6.2.36 Filler Status Code

Definition : This field contains a code describing the status of the appointment with respect to the filler application. Refer to user-defined table TB010 for suggested codes.

#### 6.3.6.3 Resource Group Segment - RGS

The RGS segment is used to identify relationships between resources identified for a scheduled event. This segment can be used, on a site specified basis, to identify groups of resources that are used together within a scheduled event, or to describe some other relationship between resources. To specify related groups of resources within a message, begin each group with an RGS segment, and then follow that RGS with one or more of the Appointment Information segments (AIG, AIL, AIS, or AIP).

If a message does not require any grouping of resources, then specify a single RGS in the message, and follow it with all of the Appointment Information segments for the scheduled event. (At least one RGS segment is required in each message – even if no grouping of resources is required – to allow parsers to properly understand the message.)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM# | ELEMENT NAME |
| 1 | 4 | NM | R |  |  |  | Sequence ID - RGS |

Figure 29: Resource Group Segment

RGS Definition:

6.3.6.3.1 Sequence ID

Definition: This field contains a number that uniquely identifies the information represented by this segment in this transaction for the purposes of specifying relationship between resources.

#### Appointment information - service segment - AIS

The AIS segment contains information about various kinds of services that can be scheduled. Services included in a transaction using this segment are assumed to be controlled by a schedule on a schedule filler application. Services not controlled by a schedule are not identified on a schedule request using this segment. --- this segment will be defined later ---

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM# | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 4 | NM | R |  |  |  | Sequence ID - AIS |
|  | 30 |  | R |  |  |  | Universal Service ID |
|  | 10 |  | C |  |  |  | Allow Substitution Code |
|  | 200 |  | C |  |  |  | Filler Status Code |

Figure 30: Appointment Information Service Segment

AIS Definition:

6.3.6.4.1 Sequence ID - AIS

Definition: This field contains a number that uniquely identifies the information represented by this segment in this transaction for the purposes of specifying relationship between resources.

6.3.6.4.2 Universal service ID --- not confirm and need to analyse further

Definition: This field contains an identifier code for a service to be scheduled.

6.3.6.4.3 Allow substitution code

Definition: This field contains a code indicating whether the identified resource can be substituted with an equivalent resource by the filler application. Refer to TB011 for recommended code to be used.

6.3.6.4.4 Filler status code

Definition: This field contains a code that describes the requested/scheduled status of the resource or activity, from the point of view of the filler application. Refer to TB010 for recommended code to be used.

#### 6.3.6.5 Appointment information - personnel resource segment - AIP

The AIP segment contains information about the personnel types that can be scheduled. Personnel included in a transaction using this segment are assumed to be controlled by a schedule on a schedule filler application. Personnel not controlled by a schedule are not identified on a schedule request using this segment. The kinds of personnel described on this segment include any healthcare provider in the institution controlled by a schedule (for example: technicians, physicians, nurses, surgeons, anesthesiologists, or CRNAs).

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM# | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 4 | NM | R |  |  |  | Sequence ID - AIP |
|  | 10 | ST | R |  |  |  | Personnel Resource ID – user ID |
|  | 80 | ST | R |  |  |  | Personnel Resource Name |
|  | 10 | ST | R |  |  |  | Resource Role code |
|  | 100 | ST | R |  |  |  | Resource Role name |
|  | 10 | ST | O |  |  |  | Allow Substitution Code |
|  | 10 | ST | O |  |  |  | Filler Status Code |

Figure 31:Appointment Information Personnel Segment

AIP Definition:

6.3.6.5.1 Sequence ID - AIP

Definition: This field contains a number that uniquely identifies the information represented by this segment in this transaction for the purposes of addition, change or deletion.

6.3.6.5.2 Personnel resource ID

Definition: This field contains the ID number of the person being requested or scheduled for an appointment. This field is used to identify a specific person being requested, or a specific person who has been scheduled as a resource for an appointment

6.3.6.5.3 Personnel resource Name

Definition: This field contains the name of the person being requested or scheduled for an appointment. This field is used to identify a specific person being requested, or a specific person who has been scheduled as a resource for an appointment

6.3.6.5.4 Resource role code

Definition: This field identifies the role of the personnel requested/scheduled for an appointment.

6.3.6.5.5 Resource role name

Definition: This field identifies the role descriptionof the personnel requested/scheduled for an appointment. Eg. (General Practice, Dermatology, Anesthesiology)

6.3.6.5.6 Allow substitution code

Definition: This field contains a code indicating whether the identified personnel resource can be replaced with an equivalent substitute personnel resource by the filler application. Refer to *user-defined table TB010 - Allow substitution codes* for suggested codes.

6.3.6.5.7 Filler status code

Definition: This field contains a code that describes the requested/scheduled status of the personnel resource, from the point of view of the filler application. Refer to *user-defined table TB010 - Filler status codes* for suggested codes.

#### 6.3.6.6 Appointment information - location resource segment - AIL

The AIL segment contains information about location resources (meeting rooms, operating rooms, examination rooms, or other locations) that can be scheduled. Resources included in a transaction using this segment are assumed to be controlled by a schedule on a schedule filler application. Resources not controlled by a schedule are not identified on a schedule request using this segment.

Figure 6.3.6.6. AIL attributes

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM# | ELEMENT NAME |
|  | 4 | NM | R |  |  |  | Sequence ID - AIL |
|  | 10 | ST | O |  |  |  | Location Resource Code |
|  | 100 | ST | O |  |  |  | Location Resource Name |
|  | 10 | ST | R |  |  |  | Location Type Code-AIL |
|  | 100 | ST | R |  |  |  | Location Type Name-AIL |
|  | 10 | ST | O |  |  |  | Allow Substitution Code |
|  | 10 | ST | O |  |  |  | Filler Status Code |

Figure 32: Appointment Information Location Segment

AIL Definition:

6.3.6.6.1 Sequence ID - AIL

Definition: This field contains a number that uniquely identifies the information represented by this segment in this transaction for the purposes of addition, change or deletion.

6.3.6.6.2 Location resource Code

Definition: This field contains a code identification of the location/discipline being requested or scheduled for an appointment. This field is used to identify a specific location being requested, or a specific location which has been scheduled for an appointment.

6.3.6.6.3 Location resource name

Definition: This field contains a name of the location/discipline being requested or scheduled for an appointment. This field is used to identify a specific location being requested, or a specific location which has been scheduled for an appointment. Eg. Jabatan Paediatrik, Jabatan Pesakit Luar.

6.3.6.6.4 Location Type Code

Definition: This field identifies the role of the location requested/scheduled for this appointment. For requests, if a specific location is not identified in *location resource code*, then this field identifies the type of location that should be scheduled by the filler application. At a minimum, the type identifier component should be valued.

6.3.6.6.5 Location Type Name

Definition: This field contains a name of the location type being requested or scheduled for an appointment. (e.g., Room1 – Nursing Room, WHIRL – Whirpool Therapy, Room2 - Therapy Room)

6.3.6.6.6 Allow substitution code

Definition: This field contains a code indicating whether the identified location resource can be replaced with an equivalent substitute personnel resource by the filler application. Refer to *user-defined table TB010 - Allow substitution codes* for suggested codes.

6.3.6.6.7 Filler status code

Definition: This field contains a code that describes the requested/scheduled status of the location resource, from the point of view of the filler application. Refer to *user-defined table TB010 - Filler status codes* for suggested codes.

### Maintain Lifetime Health Record

Lifetime health record is defined as one of the order entry transaction from various health facility centres or institutions. The LHR is essential to send to the central repository in order to integrate individuals health record and health plan from worm to torm.

**Message format: Maintain Patient Master Index - T12108**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| ORC | Common order request |
| PDI | Patient demographic information |
| [EPI] | Episode information |
| [ECI] | Encounter information |
| [{ |  |
| NOK | Next of kin |
| INS | Medical Insurance info |
| EMP | Employment info |
| OGN | Organ Donor info |
| } |  |
| ] |  |

**Message format: Maintain Health Records/ Health Plan - T12109**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| ORC | Common order request |
| PDI | Patient demographic information |
|  |  |
| [EPI] | Episode information |
| [ECI] | Encounter information |
| { |  |
|  | **<-- Episode Summary -->** |
| DGS | Diagnosis information |
| PMH | Past medical history |
| CCN | Chief complaint information |
| VTS | Vital Signs |
| PEM | Physical Examination |
| SPR | Surgical Medical Procedure Report |
| RRS | Radiology report \*\* |
| LIR | LAB Test Report |
| DDR | Drug Dispense/Medication |
| MOP | Health Plan Monitoring Parameters |
| PHP | Personalised Health Plans |
|  |  |
|  | **<-- Health Condition Summary -->** |
| IMU | Immunization Info |
| SOH | Social History |
| FMH | Family Health Info/History |
| ALG | Allergy |
| BLD | Blood Group \*\* |
| DAB | Disability Info \*\* |
| HPI | History of present illness \*\* |
|  |  |
| } |  |

**Message format: Cured a Disease (T12110)**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| ORC | Common order request |
| PDI | Patient demographic information |
| [EPI] | Episode information |
| [ECI] | Encounter information |
| { |  |
| PWS | Problems summary |
| } |  |

### Ward Management

Ward management module consists of Admit, Discharge and Transfer transactions of patients. Generally, information of patient and ward is entered through a Patient Management System (PMS) and passed to the consultation room (CIS), ancillary and billing system either in the form of an unsolicited update or a response to a record-oriented query.

### Billing

The patient accounting message set provides for the entry and manipulation of information on billing accounts, charges, payments, adjustments, insurance, and other related patient billing and accounts receivable information.

#### 6.3.8.1 Segment Information - BLI

The segment will be defined in iteration 3 of LHP under the ADT module.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 10 | String | R | N |  |  | When to charge |
| 2 | 10 | String | R | N |  |  | Charge type |
| 3 | 15 | String | R | N |  |  | Account number |

Figure 33: Billing Segment

Billing segment will be defined in next iteration

### View/Query

A query message is used to support transactions related to the query of a patient health record, patient master index information, patient billing information, and other queries that related to administration.

A query can be synronize (online response) or asynorize (batch response) depending on priority defined for each of the message request.

#### 6.3.10.1 View/Query Lifetime Health Summary – T12308

**Message format: Query message for T12308**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| QRD | Query definition |
| QR1 | Query lifetime health summary |

**Message format: Response message for T12308**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header – exist if query priority is D |
| HCS | Health condition summary |
| {EPI} | Episode Information |
| {PWS} | Problem and Wellness Summary |
| [{ |  |
| DGS | Diagnosis information |
| CCN | Chief complaint information |
| VTS | Vital Signs |
| PEM | Physical Examination |
| SOH | Social History |
| FMH | Family Health Info/History |
| ALG | Allergy |
| BLD | Blood Group |
| DAB | Disability Info |
| HPI | History of Present Illness |
| IMU | Immunization Info |
| SPR | Surgical Medical Procedure Report |
| RRS | Radiology report |
| LIR | LAB report |
| DDR | Drug Dispense Report |
| PRP | Problem vs treatment – not confirm yet |
| PMH | Past medical history |
| MOP | Monitoring Parameters |
| PHP | Personalised Lifetime Health Plans |
| MOR | Monitoring info |
| ADW | Admit to ward |
| PNT | Progress Notes |
| ROS | Radiology order |
| DTO | Drug Treatment order |
| LIO | Laboratory order |
| PLT | Problem List |
| ADW | Admit To Ward |
| ARQ | Follow up order |
| PRI | Referral order |
| } |  |
| ] |  |

**Example: Query message**

Msh|^~&|OMS^T12308|LHP-PMS|16.167.168.1|LHP-CIS|16.167.168.1|||||| <cr>

QRD|30012003^11:30:25|I|||||||T12308^1234||| <cr>

QR1|0000000013|||||HFCbt9|JPL||6| <cr>

The QR1 segment is used to define request attributes for lifetime health summary.

Figure 34 : QR1 – Query Segment for LHS

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 30 | ST | C | N |  |  | PMI No |
|  | 8 | ST | C | N |  |  | Old IC no |
|  | 12 | ST | C | N |  |  | New IC no |
|  | var | CM | C | N |  |  | Id Type |
|  | 30 | ST | R | N |  |  | Id No |
|  | 8 | ST | O | N |  |  | Health facility code |
|  | Var | CE | O | N |  |  | Discipline code |
|  | Var | CE | O | N |  |  | Subdiscipline code |
|  | 5 | NM | O | N |  |  | Maximum Request |
|  | 5 | NM | O | N |  |  | Minimum Request |

6.3.10.1.1 PMI No

Definition :This field contains the unique identication for patient. The optionality of this field is defined as conditional. Whether the field is required will be depending on old IC No or New IC no or Id Type and Id No that provided in the transaction’s message.

6.3.10.1.2 Old Ic No

Definition: This field identifies the patient identification number through old identification. The optionality of this field is defined as conditional. Whether the field is required will be depending on PMI No or New IC no or Id Type and Id No that provided in the transaction’s message.

6.3.10.1.3 New IC no

Definition: This field identifies the patient identification number through new identification. The optionality of this field is defined as conditional. Whether the field is required will be depending on old IC No or PMI no or Id Type and Id No that provided in the transaction’s message.

6.3.10.1.4 Id Type

Component : <012>^<Detail Reference Code >^<Description>

Definition: This field identifies the patient’s identification type such as Passport, Mother’s IC, Birth Certificate and Military Card.

6.3.10.1.5 Id No

Definition: This field contains the patient identification number based on id type.

6.3.10.1.6 Health Facility Code

Definition : This field contains the unique identifier of the healthcare provider

6.3.10.1.7 Discipline code

components of discipline code : < discipline cd (ST)> ^ <discipline name(ST)> ^ <code scheme(ST)>

Definition: This field specifies the discipline where the healthcare professional was physically located.

6.3.10.1.8 Subdiscipline code

components of sub discipline code : < discipline cd (ST)> ^ <discipline name(ST)> ^ <code scheme(ST)>

Definition: This field specifies the sub discipline where the healthcare professional was physically located.

6.3.10.1.9 Maximum request

Definition : This field contains the minimum record of the response that can be accepted by the requesting system.

6.3.10.1.10 Minimum request

Definition : This field contains the maximum record of the response that can be accepted by the requesting system.

#### 6.3.10.2 View/Query Patient Information – T12310

**Message format: Query message for T12310**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| QRD | Query definition |
| QR2 | Query patient information |

**Message format: Response message for T12310**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header – exist if query priority is I |
| {[PDI | Patient Demographic Information |
| NOK | Next of Kin information |
| MDI | Medical insurance Information |
| ] |  |
| } |  |

The QR2 segment is used to define the query request attributes for patient information.

Figure 35 : QR2 – Query Segment for Patient Information

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 30 | ST | C | N |  |  | PMI No |
|  | 8 | ST | C | N |  |  | Old IC no |
|  | 12 | ST | C | N |  |  | New IC no |
|  | var | CM | C | N |  |  | Id Type |
|  | 30 | ST | C | N |  |  | Id No |

6.3.10.2.1 PMI No

Definition :This field contains the unique identication for patient. The optionality of this field is defined as conditional. Whether the field is required will be depending on old IC No or New IC no or Id Type and Id No that provided in the transaction’s message.

6.3.10.2.2 Old Ic No

Definition: This field identifies the patient identification number through old identification. The optionality of this field is defined as conditional. Whether the field is required will be depending on PMI No or New IC no or Id Type and Id No that provided in the transaction’s message.

6.3.10.2.3 New IC no

Definition: This field identifies the patient identification number through new identification. The optionality of this field is defined as conditional. Whether the field is required will be depending on old IC No or PMI no or Id Type and Id No that provided in the transaction’s message.

6.3.10.2.4 Id Type

Component : <012>^<Detail Reference Code >^<Description>

Definition: This field identifies the patient’s identification type such as Passport, Mother’s IC, Birth Certificate and Military Card. The optionality of this field is defined as conditional. Whether the field is required will be depending on PMI no or old IC No or New IC no that provided in the transaction’s message.

6.3.10.2.5 Id No

Definition: This field contains the patient identification number based on id type.

### Generate PMI Number

Every patient that visits the healthcare facility will be given a unique identifier, the PMI Number , which can be used to retrieve his/her registration details and medical records.

PMI Number will serve as a medical ID to the patient and the patient may present his/her PMI Number for his/her subsequent visit to the healthcare facility in replace of other documents such as IC Number to retrieve his/her records.

PMI number is generated centrally at National Telehealth Data Centre (NTDC) to ensure uniqueness of the PMI number at nationwide level and to assure that each and every person carries a single PMI number only.

Technically, PMI Number is generated at NTDC in a batch automatically when the system found that the available unused PMI number at a particular healthcare facility has reached a pre-defined value.

**Message format: Request message for T12112**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| QRD | Query definition |
| [CTD](#_6.3.4.2_Contact_Data) | Context Data |

**Message format: Response message for T12112**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header – exist if query priority is I |
| PNI | Patient Number Information |

### 

The PNI segment is used to define the attributes for patient master index number information.

Figure 36 : Patient Number Information

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | O | N |  |  | Transaction date |
|  | 7 | NM | O | N |  |  | Total Number Generated |
|  | 30 | ST | R | Y |  |  | PMI No |

* + - 1. Transaction Date

Definition: This field contains the date of the PMI No to be generated.

* + - 1. Total Number Generated

Definition: This field contains the total PMI number to be generated.

6.3.11.3 PMI No

Definition :This field contains the unique identication for patient that generated by the provider.

# 7. Lifetime Health Summary (LHS) Segments

LHS contains of history of patient’s health records which include patient’s health problems, onset date of the problems, resolution date of the problems, active drugs taken, any procedure carried out and health facility provider that he/she visited.

LHS make easy for healthcare profesional to view his/her patient’s problems and help them to make a plan and decision on treatment to be carried out to his/her patients. For that reason, a collection of attributes from various EMR or LHR have to be defined and standardized.

**Message format: Lifetime health summary**

|  |  |
| --- | --- |
| Segment ID | Segment Description |
| MSH | Message Header |
| PDI | Patient demographic information |
| HCS | Health condition summary |
| {EPI} | Episode Information |
| {PWS} | Problem and Wellness Summary |
| [{ |  |
| DGS | Diagnosis information |
| CCN | Chief complaint information |
| VTS | Vital Signs |
| PEM | Physical Examination |
| SOH | Social History |
| FMH | Family Health Info/History |
| ALG | Allergy |
| BLD | Blood Group |
| DAB | Disability Info |
| HPI | History of Present Illness |
| IMU | Immunization Info |
| SPR | Surgical Medical Procedure Report |
| RRS | Radiology report |
| LIR | LAB report |
| DDR | Drug Dispense Report |
| PRP | Problem vs treatment – not confirm yet |
| PMH | Past medical history |
| MOP | Monitoring Parameters |
| PHP | Personalised Lifetime Health Plans |
| MOR | Monitoring info |
| ADW | Admit to ward |
| PNT | Progress Notes |
| ROS | Radiology order |
| DTO | Drug Treatment order |
| LIO | Laboratory order |
| PLT | Problem List |
| ADW | Admit To Ward |
| ARQ | Follow up order |
| PRI | Referral order |
| } |  |
| ] |  |

**Sample:**

Msh|^~&|CIS^T0100| <cr>

PDI|0123456789|Mohd Zamanhuri Abdullah|a0332322|660206-01-5261|….. <cr>

HCS|AB|positif|…. <cr>

PWS|x.101|Fever|episode-1^onsetDate-1^resolutionDate-1~episode-2^onsetDate-2^resolutionDate-2|Chronic ind|drug-1^drugName-1~drug-2^drugName-2|proc-1^procName-1~ proc-2^procName-2<cr>

DGS|20092002^11:50:35|x.101^fever|laterality code|comments ….<cr>

CCN|20092002^11:50:35|x.102^fever~x.103^flu|severity code| ….<cr>

VTS|20092002^11:50:35|x.102^fever~x.103^flu|severity code| ….<cr>

## *7.1 Patient Demographic Information - PDI*

Refer PDI segment in section 4.

## *7.2 Health Condition Summary Segment - HCS*

Refer HCS segment in section 4.

## *Episode Information – EPI*

Refer EPI segment in section 4.

## *Problem and Wellness Summary - PWS*

Figure 7.3 : Problem and Wellness Summary Segment

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 30 | ST | R | N |  |  | LHS Code |
|  | 300 | ST | R | N |  |  | LHS Description |
|  | 100 | TS | R | Y |  |  | Episode date |
|  | 1 | ST | O | N |  |  | Chronic Ind |
|  | 500 | CE | O | Y |  |  | Active drug taken |
|  | 500 | CE | O | Y |  |  | Procedure taken |
|  | 1 | ST | R | N |  |  | Status – Active/Inactive |
|  | 1 | ST | O | N |  |  | Transaction Ind – On Hold/Normal |
|  | 1 | ST | R | N |  |  | LHS\_Type |
|  | 14 | TS | O | N |  |  | Onset Date |
|  | 14 | TS | O | N |  |  | Resolution Date |

* + 1. LHS Code
    2. LHS Description
    3. Episode Date (TS)
    4. Chronic Ind
    5. Active Drug Taken (CE)

Components: <drugCode (ST)> ^ <drugDesc (ST)>

* + 1. Procedure Taken (CE)

Components: <procCode (ST)> ^ <procDesc (ST)>

* + 1. Status (ST)
    2. Transaction Ind (ST)
    3. LHS Type (ST)
    4. Onset Date (TS)
    5. Resolution Date (TS)

## *Episode Summary - Generic Illness*

Episode summary of generic illness is a health record captured by the healthcare professional for each of patient’s visit at any healthcare facility provider. Episode summary of EMR or LHR comprises of the following set of information:

1. DGS - Diagnosis
2. CCN - Chief Complaint
3. VTS - Vital Signs
4. PEM - Physical Examination
5. SOH - Social History
6. FMH - Family Health Info/History
7. ALG - Allergy
8. BLD - Blood Group
9. DAB - Disability Info
10. HPI - Health Present Infor
11. IMU - Immunization Info
12. SPR - Surgical Procedure
13. RRS - Radiology report
14. LIR - LAB test
15. DDR - Medication
16. MEC – Medical Certificate [NOTA: 21/03/2014 – add new MEC – by umar]

### Diagnosis – DGS

Figure 7.4.2 : DGS Detail Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Diagnosis info |

1. Episode date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

1. Diagnosis info (CM)

NOTA: 26/03/2014 - ^ <termtype(ST)> ^ <ICD10code> ^ <ICD10desc> - BY UMAR

components :<diagnosis type (ST)> ^ <diagnosisTypeDesc (ST)> ^ <diagnosis status (ST)> ^ <diagnosis date (TS)> ^ <read code(ST)> ^ <readDescription(ST)> ^ ,diagnosisCd (ST> ^ < diagnoissDesc (ST)> ^ <severityCd(ST)> ^ <severityDesc(ST)> ^ <siteCd(ST)> ^ <siteDesc(ST)> ^ <episodicityCd(ST)> ^ <episodicityDesc(ST)> ^ <lateralityCD(ST)> ^ <lateralityDesc(ST)> ^ <causativeCd(ST)> ^ <causativeDesc(ST)> ^ <comments (ST)> ^ <txnDate (TS)> ^ <status (ST> ^ <encounter date (TS)> ^ <hfc cd (ST)> ^ < doctor id (ST) > ^< doctor name (ST)> ^ <termtype(ST)> ^ <ICD10code (ST)> ^ <ICD10desc (ST)>

Definition : This field contains the information of diagnosis and its attributes and also the information of encounter within the same episode. This field defined as a composite component.

### Chief Complaints – CCN

Figure 7.4.3 : CCN Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Symptom Info – CTV3 |

1. Episode date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

1. Symptom Info - CTV3 (CM)

NOTA: add new component – by umar – 31/03/2014

components : <symptomcode(ST)> ^ <symptomDesc(ST)> ^ <severityCd(ST)> ^ <severityDesc(ST)> ^ <duration(NM)> ^ <UOMCode(ST)> ^ <UOMDescription(ST)> ^ <bodySiteCd(ST)> ^ <bodySiteDescCD(ST)> ^ <lateralityCd> ^ <lateralityDesc(ST)> ^ <comments (ST)> ^ <txnDate (TS)> ^ <status (ST> ^ <encounter date (TS)> ^ <hfc cd (ST)> ^ < doctor id (ST) > ^< doctor name (ST)> ^ <termtype (ST)> ^<ICD10code (ST)>^<ICD10desc (ST)>

Definition : This field defined as composite component which contains the attributes of symptom for specific encounter within the same of episode.

### Vital Sign – VTS

Figure 7.4.4 : VTS Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Vital sign info |

1. Episode date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

7.5.3.2 Vital Sign Info

components : <Temperature (NM)> ^ <Bp-sitting-sys (NM)> ^ <Bp-sitting-diag (NM)> ^ <Bp-supine-sys (NM)> ^ <Bp-supine-diag (NM)> ^ <Bp-standing-sys (NM)> ^ <Bp-standing-diag (NM)> ^ < weight (NM)> ^ < Height (NM)> ^ < Head circumference (NM)> ^ <Respirotary rate (NM)> ^ < GCS (NM) >^ < Pulse rate (NM)> ^ < Left pupil condition (NM) > ^ <Left pupil option (NM)> ^ < Left pupil size (ST) > ^ < Left light reflex (ST) > ^ < Right light reflex (ST) > ^ < Left accom reflex (ST) > ^ < Right accom reflex (ST) > ^ < Heart rate (ST) > ^ <encounter date (TS) > ^ <hfc cd (ST) > ^ < doctor id (ST) > ^ < doctor name (ST) > ^ <response> ^ <scale> ^ <score> ^ <sitting-pulse (NM)> ^ <supine-pulse (NM)> ^ <standing-pulse (NM)>

Definition : This field defined as composite component which contains the attributes of vital sign for specific encounter within the same of episode.

### Social History – SOH

Figure 7.4.5 : SOH Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Social history info – CTV3 |

1. Episode Date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

1. Social History Info - CTV3 (CM)

components : <SHCd(ST)> ^ <SHDesc(ST)> ^ <attribute-1(ST)> ^ <attribute-2(ST)> ^ <attribute-3(ST)> ^ <attribute-4 (ST)> ^ <attribute-5(ST)> ^ <startDate(DT)> ^ <resolveDate(DT)> > ^ < answerCode (ST) >^< answerDesc (ST) > ^ <comments (ST)> ^ <txnDate (TS)> ^ <status (ST> ^ <encounter date (TS) > ^ <hfc cd (ST) > ^ < doctor id (ST) > ^ < doctor name (ST)

### Physical Examination – PEM

Figure 7.4.6 : PEM Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Signs info – CTV3 |

1. Episode Date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

1. Signs info - CTV3 (CM)

components : <SignsSystem(ST)> ^<SigsSystemDesc> ^ <SignsCd(ST)> ^ <SignsDesc(ST)> ^ <SignsCondition(ST)> ^ <comments (ST)> ^ < answerCode (ST) >^< answerDesc (ST) > ^ <txnDate (TS)> ^ <status (ST> ^ <encounter date (TS) > ^ <hfc cd (ST) > ^ < doctor id (ST) > ^ < doctor name (ST)

### Family Health History – FMH

Figure 7.4.7 : FMH Segment

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Family health info |

1. Episode Date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

1. Family health info (CM)

NOTA: add new component – by umar – 31/03/2014

components : <FamilyRelationshipCd(ST)> ^ <ICD10 code (ST)> ^ <ICD10-Description (ST)> ^ <read code(ST)> ^ <readDescription(ST)> ^ <Date Onset (TS)> ^ <comments (ST)> ^ < answerCode (ST) >^< answerDesc (ST) > ^ <txnDate (TS)> ^ <status (ST> ^ <encounter date (TS) > ^ <hfc cd (ST) > ^ < doctor id (ST) > ^ < doctor name (ST) > ^ <termtype (ST)>

example : FMH|28092002^10:25:30|Mother^x.1.3^Diabetes Melitus^readcd^readDesc^28091999^Chronic^YES^^28092002^10:40:20^^^28092002^10:40:20^1^mazurah^Mazurah~ Father^x.1.4^Hyper Tension^readcd^readDesc^28091999^Chronic^YES^^28092002^10:40:20^^^28092002^10:40:20^1^mazurah^Mazurah |<cr>

### Allergy – ALG

Figure 7.4.8 : ALG Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Allergy info |

* + - 1. Episode Date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

* + - 1. Allergy info (CM)

NOTA: add new component – by umar – 31/03/2014

components : <AllergyCd(ST)> ^ <AllergyDesc(ST)> ^ <AllergyDate(DT)> ^ <comments (ST)> ^ < answerCode (ST) >^< answerDesc (ST) >^ <txnDate (TS)> ^ <status (ST> ^ <encounter date (TS) > ^ <hfc cd (ST) > ^ < doctor id (ST) > ^ < doctor name (ST) > ^ <termtype (ST)> ^<ICD10code (ST)>^<ICD10desc (ST)>

### Blood Group – BLD

Figure 7.4.9 : Blood Group Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | 10 | ST | R | N |  |  | Blood type |
|  | 10 | ST | R | N |  |  | Blood rhesus |
|  | 1 | ST | R | N |  |  | G6PD Status |

* + - 1. Episode Date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

* + - 1. Blood type
      2. Blood rhesus
      3. G6PD status

### Disability Info – DAB

Figure 7.4.10 : Disability Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Disability info |

1. Episode Date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

1. Disability info (CM)

NOTA: add new component – by umar – 31/03/2014

components : <DisabilityCd(ST)> ^ <DisabilityDesc(ST)> ^ <DisabilityDate(DT)> ^ <termtype (ST)> ^<ICD10code (ST)>^<ICD10desc (ST)>

### History of Present Illness – HPI

Figure 7.4.11 : History Present Illness Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | Y | N |  |  | HPI Notes |

1. Episode Date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

1. HPI Notes (CM)

components : <Notes (ST)> ^ <encounter date (TS) > ^ <hfc cd (ST) > ^ < doctor id (ST) > ^ < doctor name (ST) >

### Immunization – IMU

Figure 7.4.12 : Immunization Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Immunization info |

1. Episode Date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

1. Immunization info (CM)

NOTA: add new component – by umar – 31/03/2014

components : <ImmunizationCd(ST)> ^ <ImmunizationDesc(ST)> ^ <ImmunizationDate(DT)> ^ <comments (ST)> ^ < answerCode (ST) >^< answerDesc (ST)> ^ <txnDate (TS)> ^ <status (ST> ^ <encounter date (TS)> ^ <hfc cd (ST)> ^ < doctor id (ST) > ^< doctor name (ST)> ^ <termtype (ST)> ^<ICD10code (ST)>^<ICD10desc (ST)>

### Surgical Procedure – SPR

Refer ARP segment for Procedure information in section [6.3.5.2](#_6.3.5.2_Assigned/Response_Procedure)

### Radiology Report – RRS

Refer RRS segment for Radiology in section [6.3.3.2](#_6.3.3.2_Radiology_Report)

### Laboratory Test - LIR

Refer LIR segment for Laboratory in section [6.3.2.2](#_Laboratory_Investigation_Result)

### Medication - DDR

Refer DDR segment for Medication in section [6.3.1.2](#_6.3.1.2_Drug_Dispense)

### Problem Relate to Plan – PRP

--- to be determined later ---

Figure 7.4.17 : Problem Relate to Plan

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | --- |
|  | 1000 | CM | R | Y |  |  | --- |

### Problem List – PLT

Problem list which to be used at assesment tab will be extracted from the PWS segment. As such, it is not essential to defined its segment and attribute.

### Progress Notes – PNT

Figure 7.4.19 : Progress Notes Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | Y | N |  |  | Progress Notes |

1. Episode Date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

1. Progress Notes (CM)

components : <Notes (ST)> ^ <comments (ST)> ^ <txnDate (TS)> ^ <status (ST> ^ <encounter date (TS) > ^ <hfc cd (ST) > ^ < doctor id (ST) > ^ < doctor name (ST) >

### Monitoring – MOR

--- to be determined latter ---

### Appointment/Followup – ARQ

Note: This segment is not essential for LHS and it will be defined and used at order entry message for Appointment and scheduling.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Followup info |

Figure 37: ARQ Attributes

ARQ Definition:

1. Episode date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various healthcare facilities.

1. Appointment info (CM)

components : <appointmentTypeCode (ST – F01742 )> ^ <appointmentTypeDesc (ST – F02066)> ^ <appointmentDate(TS – F01537)> ^ <hfcTo(CE)> ^ <disciplineTo(CE)> ^ <subdisciplineTo(CE)> ^ <locationCode (ST – F01369)>^<locationDesc (ST – F00944)> ^ <comments (ST – F00098) >^ <status (ST – F01347)> ^ <encounter date(TS – F01550)> ^ <hfcFrom(ST – F01343)> ^ <doctorId (ST – F01377)> ^ <doctorName (ST – F00673)>

sub components of disciplineTo : <disciplineCode (ST – F02019)> ¥ <disciplineDesc(ST – F02020)> ¥ <code scheme(ST - UD)>

sub components of subdisciplineTo : <subdisciplineCode (ST – F02021)> ¥ <subdisciplineDesc(ST – F02022)> ¥ <code scheme(ST - UD)>

sub components of hfcTo : <hfcCode (ST – F01703)> ¥ <hfcDesc(ST – F02017)> ¥ <code scheme(ST – UD)>

Definition : This field contains the followup and appointment information. This field is defined as composite component.

### Admit to Ward – ADW

Note: This segment is not essential for LHS and it will be defined and used at order entry message for ADT.

This segment defines the information on instruction for admission.

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Admission info |

Figure 38: ADW Attributes

ADW Definition:

1. Episode date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various healthcare facilities.

1. Admission info (CM)

components : <admissionDate(TS – F00174)> ^ <admissionDisciplineCode (CE)> ^ <wardCode(ST – F01615)> ^ <wardClassCode(CE)> ^ <admissionReason (ST – F00183)>^<referredFrom (ST – F01753)> ^ <admissionStatus (ST – F01754) >^ <status (ST - F01347)> ^ <encounter date(TS - F01550)> ^ <hfc cd(ST - F01343)> ^ < doctor id (ST - F01377) > ^< doctor name(ST - F00673)>

sub components of admissionDisciplineCode : <disciplineCode (ST – F02019)> ¥ <disciplineDesc(ST - F02020)> ¥ <code scheme(ST - UD)>

sub components of wardClass : <wardClassCode(ST – F01399)> ¥ <wardClassDesc(ST – F02070)> ¥ <codeScheme(ST - UD)>

Definition : This field contains the information of admit to ward instruction during consultation. This field is defined as composite component.

### Past Medical History – PMH

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | PMH info |

Figure 39: PMH Attributes

PMH Definition:

* + - 1. Episode date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres

* + - 1. PMH info (CM)

NOTA: add new component – by umar – 31/03/2014

components : <read code(ST)> ^ <readDescription(ST)> ^ <diagnosis status(ST)> ^ <diagnosisStatusDesc – (ST)> ^ <diagnosis date(DT)> ^ <comments (ST)>^<answerCode (ST)> ^ <answerDesc (ST) >^ <txnDate (TS)> ^ <status (ST)> ^ <encounter date(TS)> ^ <hfc cd(ST)> ^ < doctor id (ST) > ^< doctor name(ST)> ^ <termtype (ST)> ^<ICD10code (ST)>^<ICD10desc (ST)>

Definition : This field contains the information of past medical history and its attributes and also the information of encounter within the same episode. This field defined as a composite component.

### Appointment/Referral – PRI

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Referral info |

Figure 40: PRI Attributes

PRI Definition:

1. Episode date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various healthcare facilities.

1. Referral info (CM)

components : <appointmentTypeCode (ST - F01742)> ^ <appointmentTypeDesc (ST - F02066)> ^ <appointmentDate(TS - F01537)> ^ <hfcTo(CE)> ^ <otherHfcTo (ST - F02067> ^ <disciplineTo(CE)> ^ <otherDisciplineTo (ST - F02068)> ^ <subdisciplineTo(CE)> ^ <referralStatus (CE)> ^ <locationCode (ST - F01369)>^<locationDesc (ST - F00944)> ^ <comments (ST - F00098) >^ <status (ST - F01347)> ^ <encounter date(TS - F01550)> ^ <doctorId (ST - F01377)> ^ <doctorName (ST - F00673)>

sub components of disciplineTo : <disciplineCode (ST – F02019)> ¥ <disciplineDesc(ST – F02020)> ¥ <code scheme(ST - UD)>

sub components of subdisciplineTo : <subdisciplineCode (ST – F02021)> ¥ <subdisciplineDesc(ST – F02022)> ¥ <code scheme(ST - UD)>

sub components of hfcTo : <hfcCode (ST – F01703)> ¥ <hfcDesc(ST – F02017)> ¥ <code scheme(ST – UD)>

sub components of referralStatus : <referralCode (ST – F01137)> ¥ <referralDesc(ST – F02069)> ¥ <code scheme(ST - UD)>

Definition : This field contains the referral and appointment information. This field is defined as composite component.

### Drug Order – DTO

Refer DTO segment for Treatment in section [6.3.1.1](#_6.3.1.1_Drug_Treatment).

### Lab order – LIO

Refer LIO segment for Laboratory in section [6.3.2.1](#_6.3.2.1_Laboratory_Investigation).

### Radiology Report - ROS

Refer ROS segment for Radiology in section [6.3.3.1](#_6.3.3.1_Radiology_Order).

### View Radiology Report – VRR

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Radiology report info |

Figure 41: View Radiology Report Segment

VIR Definition:

1. Episode date

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various healthcare facilities.

1. Radiology report info

components : <orderDate(TS)> ^ <hfcProviderCode (ST)> ^ <hfcProviderDesc> ^ <orderStatusCode(ST)> ^ <orderStatusDesc> ^ <orderPriorityCode(ST)> ^ <orderPriorityDesc (ST)> ^ <imagingItemCode (ST)> ^ <imagingItemDesc (ST)> ^ <imagingReportCode (ST)> ^ <imagingReportDesc (ST)> ^ reportDate (TS)> ^ <reportByCode (ST) > ^ <reportByDesc> ^ <reportNotes (ST)> ^ <encounter date(TS)> ^ <hfc cd(ST)> ^ < doctor id (ST) > ^< doctor name(ST)>

Definition : This field contains the details of radiology report for each episode.

### View Laboratory Result – VLR

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | var | CM | R | Y |  |  | Lab result info |

Figure 42: View Laboratory Result Segment

VLR Definition:

1. Episode date

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various healthcare facilities.

1. Lab result info

components : <orderDate(TS)> ^ <hfcProviderCode (ST)> ^ <hfcProviderDesc> ^ <orderStatusCode(ST)> ^ <orderStatusDesc> ^ <orderPriorityCode(ST)> ^ <orderPriorityDesc (ST)> ^ <testItemCode (ST)> ^ <testItemDesc (ST)> ^ <testResultCode (ST)> ^ <testResultDesc (ST)> ^ <testDate (TS)> ^ <resultByCode (ST) > ^ <resultByDesc> ^ <resultNotes (ST)> ^ <encounter date(TS)> ^ <hfc cd(ST)> ^ < doctor id (ST) > ^< doctor name(ST)>

Definition : This field contains the details of laboratory result for each episode.

### View Drug Dispense - VDD

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | Var | CM | O | Y |  |  | Drug dispense info |

Figure 43: View Drug Dispense Segment

VDD Definition:

1. Episode date

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various healthcare facilities.

1. Drug dispense info

components : <orderDate(TS)> ^ <hfcProviderCode (ST)> ^ <hfcProviderDesc> ^ <orderStatusCode(ST)> ^ <orderStatusDesc> ^ <orderPriorityCode(ST)> ^ <orderPriorityDesc (ST)> ^ <orderDrugCode (ST)> ^ <orderDrugDesc (ST)> ^ <dispenseDrugCode (ST)> ^ <dispenseDrugDesc (ST)> ^ dispenseDate (TS)> ^ <dispenseByCode (ST) > ^ <dispenseByDesc> ^ <dispenseNotes (ST)> ^ <encounter date(TS)> ^ <hfc cd(ST)> ^ < doctor id (ST) > ^< doctor name(ST)>

Definition : This field contains the details of drug dispense for each episode.

### NOTA: 26/03/2014 – add MEC segment – by umar

### Medical Certification – MEC

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | R | N |  |  | Episode date |
|  | Var | CM | O | Y |  |  | Medical certification info |

Figure 44: Medical Certification Segment

VDD Definition:

1. Episode date

Definition: This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various healthcare facilities.

1. Medical Certification Info

components : <diagnosisCodeReadCode(ST)> ^ <diagnosisDescReadCode(ST)> ^ <diagnosisCodeICD10(ST)> ^ <diagnosisDescICD10(ST)> ^<complaintCodeReadCode(ST)> ^ <complaintDescReadCode(ST)> ^ <complaintCodeICD10(ST)> ^ <complaintDescICD10(ST)> ^ <comments (ST)> ^ <timeFrom(TS)> ^ <timeTo(TS)> ^ <dateFrom(TS)> ^ <dateTo(TS)> ^ <txnDate (TS)> ^ <status (ST> ^ <encounter date (TS)> ^ <hfc cd (ST)> ^ < doctor id (ST) > ^< doctor name (ST)>

Definition : This field contains the details of medical certification for each episode

## *Episode Summary - Wellness (wellchild)*

Episode summary of wellness consists of monitoring parameter and personalised lifetime health plan of individuals. The information is captured and generated either by the healthcare professional through CIS or individuals through MCPHIE. Episode summary of wellnes comprises of the following set of information:

### Monitoring Parameter - MOP

Monitoring parameter information is an input to get a health plan and management plan from Rules and Logics Applicaton. This parameter is essential to store in the Lifetime Health Record for patient’s medical record.

**Sample: MOP grammer**

Msh|^~&|CIS^T0100| <cr>

PDI|0123456789|Mohd Zamanhuri Abdullah|a0332322|660206-01-5261|….. <cr>

PWS|wc1m|well child 1 mth|2009200211:50:35^^||| <cr>

MOP|2009200211:50:35| 2009200212:50:35^HKJ^Saleem^Dr. Saleem

Muhammad^source|WC1M| GRW|

GRW1¥ ¥ ^Q1¥ ¥ ^KG¥ ¥ ^3.5~ GRW2¥ ¥ ^Q2¥ ¥ ^CM¥ ¥ ^50~

GRW3¥ ¥ ^Q3¥ ¥ ^CM¥ ¥ ^34 <cr>

MOP|2009200211:50:35| 2009200212:50:35^HKJ^Saleem^Dr. Saleem

Muhammad^source|WC1M| IMU|

IMU1¥ ¥^Q107¥ ¥^DT¥ ¥^ 20092002~ IMU2¥ ¥^Q108¥ ¥^DT¥ ¥^ 22092002~

IMU3¥ ¥^Q109¥ ¥^DT¥ ¥^ 23092002 <cr>

MOP|2009200211:50:35| 2009200212:50:35^HKJ^Saleem^Dr. Saleem

Muhammad^source|WC1M| SAF|

SAF1 ^Q1^answer1^ SAF1-value~ SAF2 ^Q1^answer1^ SAF1-value~

SAF3 ^Q1^answer1^ SAF1-value <cr>

Figure 7.5.1 : Monitoring Parameter Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | C | N |  |  | Episode date |
|  | var | CM | C | N |  |  | Encounter info |
|  | Var | CE | R | N |  |  | Program area |
|  | Var | CE | R | N |  |  | Monitoring area |
|  | var | CM | R | Y |  |  | MPI info |

1. Episode date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres. The optionality of this field is defined as conditional . Whether the field is required will be depending on EPI segment that provided in the transaction’s message.

1. Encounter info (CM)

components : <encounter date> ^ <hfc cd> ^ < doctor id > ^ < doctor name>

Definition : This field contains the date/time, healthcare provide code, doctor’s id and name on which the patient is consulted by the healthcare professional at various health centres or institutions.

1. Program Area (CE)

components : <program cd (ST)> ^ <description (ST)> ^ < code scheme >

Definition : This field contains the identifier of the program area of PLHP. This field is defined as a code element.

The first component is a string that identifies a unique program area code and it is a **required** field. Second and third component is a description of the program and code scheme to be used. Second and third components are optional field.

1. Monitoring Area (CE)

components : <monitoring cd (ST)> ^ <description (ST)> ^ < code scheme >

Definition : This field contains the identifier of the monitoring area of a specific program area. This field is defined as a code element.

The first component is a string that identifies a unique monitoring area code and it is a **required** field. Second and third component is a description of the monitoring area and code scheme to be used. These second and third components are optional field.

1. MOP Info (CM)

components : <submon area (CE)> ^ <questioncd (CE)> ^ <answer cd (CE)> ^ < value (ST)>

sub components of submon area : <submon area cd (ST)> ¥ <desc(ST)> ¥ <code scheme(ST)>

sub components of questioncd : <questioncd(ST)> ¥ <desc(ST)> ¥ <code scheme(ST)>

sub components of answercd : <answer cd(ST)> ¥ <desc(ST)> ¥ <code scheme(ST)>

Definition : This field contains the information of monitoring parameter information of a specific monitoring area whithin an encounter of consultation. This field defined as a composite component.

### Personalised Health Plan - PHP

The personalised health plan has a single major role which to generate PLHPs for individuals tailored to each person’s specific health needs.

The individual encounters many health plans in his lifetime, ranging from immunizaton plan at birth, through rehabilitation plans in cases of illness to geriartric plans in his old age. The underlying idea of the PLHP is to integrate all such plans into a single plan for the individual, and that there would be triggering and monitoring mechanisms to ensure that the individual adhere to the details of the plan.

The important PLHPs to be generated for individuals are Health Plan, Management Plan and Risk factor. These plan will be considered as part of the LHR.

**Sample: PHP grammer**

Msh|^~¥ |CIS^T0100| <cr>

PDI|0123456789|Mohd Zamanhuri Abdullah|a0332322|660206-01-5261|….. <cr>

PWS|wc1m|well child 1 mth|2009200211:50:35^^||| <cr>

PHP|2009200211:50:35| 2009200212:50:35^HKJ^Saleem^Dr. Saleem

Muhammad^source|WC1M| GRW|GRW1^Weight^MOL|

HLP^ Fivemonth\_0010¥To give OPV 2nd dose now¥MOL~

MXP^ Fivemonth\_0009¥Your baby needs revaccination now¥MOL~

RSF^ Fivemonth\_0051¥SEVERELY UNDERWEIGHT¥MOL<cr>

Figure 7.5.2 : PHP Attributes

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 14 | TS | C | N |  |  | Episode date |
|  | var | CM | C | N |  |  | Encounter info |
|  | Var | CE | R | N |  |  | Program area |
|  | Var | CE | R | N |  |  | Monitoring area |
|  | Var | CE | R | N |  |  | Sub Monitoring area |
|  | var | CM | R | Y |  |  | PHP Info |

1. Episode date (TS)

Definition : This field contains the date/time on which the patient is visited or consulted by the healthcare professional at various health centres. The optionality of this field is defined as conditional. It is optional if the EFI is provided in the message.

1. Encounter info (CM)

components : <encounter date> ^ <hfc cd> ^ < doctor id > ^ < doctor name>

Definition : This field contains the date/time, healthcare provide code, doctor’s id and name on which the patient is consulted by the healthcare professional at various health centres or institutions. The optionality of this field is defined as conditional. It is optional if the EFI is provided in the message.

1. Program Area (CE)

components : <program cd (ST)> ^ <description (ST)> ^ < code scheme >

Definition : This field contains the identifier of the program area of PLHP. This field is defined as a code element.

The first component is a string that identifies a unique program area code and it is a **required** field. Second and third component is a description of the program and code scheme to be used. Second and third components are optional field.

1. Monitoring Area (CE)

components : <monitoring cd (ST)> ^ <description (ST)> ^ < code scheme >

Definition : This field contains the identifier of the monitoring area of a specific program area. This field is defined as a code element.

The first component is a string that identifies a unique monitoring area code and it is a **required** field. Second and third component is a description of the monitoring area and code scheme to be used. These second and third components are optional field.

1. Sub Monitoring Area (CE)

components : <sub monitoring cd (ST)> ^ <description (ST)> ^ < code scheme >

Definition : This field contains the identifier of the sub monitoring area of a specific monitoring area within the same program area. This field is defined as a code element. Some cases, a monitoring area does not have a sub monitoring area. For that cases, this field will be defaulted with the value of monitoring area information.

The first component is a string that identifies a unique sub monitoring area code and it is a **required** field. Second and third component is a description of the monitoring area and code scheme to be used. These second and third components are optional field.

1. PHP Info (CM)

components : <PHP Type(ST)> ^ <PHP code (CE)>

sub components of PHP code : <Plan code (ST )> ¥ <Description (ST)> ¥ <code scheme (ST)>

Definition : This field contains the information of personalised health plan of a specific monitoring area whithin an encounter of individuals. This field defined as a composite component.

The first component is a string that identifies a unique personalised health plan (PHP) type; eg. Health Plan – HLP, Management Plan – MXP and etc. Refer to *user-defined table TB015 – PHP Type codes* for suggested codes to be used.

Second component is a unique identifier of the personalised health plan. This field is defined as a code elements and its 1st subcomponent is a **required** field. Second and third subcomponent is a description of the plan and code scheme to be used. These second and third components are optional field.

# 8. Lifetime Health Record (LHR) Segments

Lifetime health record (LHR) segments shall be refered to Lifetime Health Summary (LHS) segments that defined in section [7](#_7._Lifetime_Health).

# 9. Personalised Lifetime Health Plans (PLHP) Segments

Personalised Lifetime Health Plans (PLHP) segments shall be refered to Lifetime Health Summary (LHS) segments that defined in section 7. 5.

# 10. Health Service Provider Segments

stop here on 25/11/2002 at 5:37pm

| SEQ | LEN | DT | OPT | RP/# | TBL# | ITEM # | ELEMENT NAME |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 10 | ST | R | N |  | F01343 | Provider ID/Code |
|  | 100 | ST | O | N |  | F01385 | Provider Name |
|  | 10 | ST | R | N |  | F01367 | Provider Department/discipline code |
|  | 100 | ST | O | N |  | F01432 | Provider Department/discipline name |
|  | 10 | ST | R | N |  | F01368 | Provider sub-discipline code |
|  | 100 | ST | O | N |  | F01433 | Provider sub-discipline name |
|  |  |  |  |  |  |  | Provider type |
|  |  |  |  |  |  |  | ROC No |
|  |  |  |  |  |  |  | Nature of Business |
|  | 30 | ST | O | N |  | F00193 | Provider address-1 |
|  | 30 | ST | O | N |  | F01348 | Provider address-2 |
|  | 30 | ST | O | N |  | F01349 | Provider address-3 |
|  | 250 | GC | O | N |  | F01350 | Provider town |
|  | 250 | GC | O | N |  | F01761 | Provider district |
|  | 250 | GC | O | N |  | F01351 | Provider state |
|  | 250 | GC | O | N |  | F00017 | Provider country |
|  | 8 | ST | O | N |  | F01455 | Provider postcode |
|  | 15 | ST | O | N |  | F01444 | Provider phone number |
|  |  |  |  |  |  |  | Provider Fax number |
|  |  |  |  |  |  |  | Provider e-mail address |

# 11. User-Defined Tables

|  |  |  |  |
| --- | --- | --- | --- |
| Table | Name | Value | Description |
| TB001 | Program classification |  |  |
|  |  | GN | Generic |
|  |  | WN | Wellness |
|  |  | IN | Illness |
| TB002 | Module code |  |  |
|  |  | CHILD | Children |
|  |  | ADULT | Adult |
| TB003 | Program Area Code |  |  |
|  |  | WC1M | Well child for 1 mth |
|  |  | WC2M | Well child for 2 mth |
|  |  | WA15 | Well adult for 15 yrs |
|  |  | WA20 | Well adult for 20 yrs |
| TB00 | Monitoring area code |  |  |
|  |  | GRW | Growth |
|  |  | NUT | Nutrition |
|  |  | DEV | Development |
|  |  | IMM | Immunization |
|  |  | ORA | Oral Health |
|  |  | SAF | Safety |
| TB005 | Sub Monitoring area code |  |  |
|  |  | GRW1 | Weight |
|  |  | GRW2 | height |
|  |  | GRW3 | Head circumference |
|  |  | NUT |  |
|  |  | DEV |  |
|  |  | IMM |  |
|  |  | ORA |  |
|  |  | SAF |  |
| TB006 | Lifetime Health Summary Type |  |  |
|  |  | 1 | Semi Static Health Record |
|  |  | 2 | Dynamic health record |
| TB007 | Appointment Reason | ROUTINE | Routine appointment - default if not valued |
|  |  | WALKIN | A previously unscheduled walk-in visit |
|  |  | CHECKUP | A routine check-up, such as an annual physical |
|  |  | FOLLOWUP | A follow up visit from a previous appointment |
|  |  | EMERGENCY | Emergency appointment |
| TB008 | Appointment Type | Normal | Routine schedule request type - default if not valued |
|  |  | Tentative | A request for a tentative (e.g., “penciled in”) appointment |
|  |  | Complete | A request to add a completed appointment, used to maintain records of completed appointments that did not appear in the schedule (e.g., STAT, walk-in, etc.) |
| TB009 | Priority | S | Stat |
|  |  | A | ASAP |
|  |  | R | Routine |
|  |  | P | Preop |
|  |  | C | Callback |
| TB010 | Filler Status Code | Pending | Appointment has not yet been confirmed |
|  |  | Waitlist | Appointment has been placed on a waiting list for a particular slot, or set of slots |
|  |  | Booked | The indicated appointment is booked |
|  |  | Started | The indicated appointment has begun and is currently in progress |
|  |  | Complete | The indicated appointment has completed normally (was not discontinued, canceled, or deleted) |
|  |  | Cancelled | The indicated appointment was stopped from occurring (canceled prior to starting) |
|  |  | Dc | The indicated appointment was discontinued (DC’ed while in progress, discontinued parent appointment, or discontinued child appointment) |
|  |  | Deleted | The indicated appointment was deleted from the filler application |
|  |  | Blocked | The indicated time slot(s) is(are) blocked |
|  |  | Overbook | The appointment has been confirmed; however it is confirmed in an overbooked state |
| TB011 | Allow substitution codes | No | Substitution of this resource is not allowed |
|  |  | Confirm | Contact the Placer Contact Person prior to making any substitutions of this resource |
|  |  | Notify | Notify the Placer Contact Person, through normal institutional procedures, that a substitution of this resource has been made |
|  |  | Yes | Substitution of this resource is allowed |
| TB012 | Diagnosis indicator | 1 | Current Diagnosis |
|  |  | 2 | Diagnosis fo Past Medical History |
| TB013 | Diagnosis Status | 0 | Inactive |
|  |  | 1 | Active |
| TB014 | Diagnosis Type | P | Provisional |
|  |  | D | Differential |
|  |  | F | Final |
| TB015 | PHP Type | MXP | Management Plan |
|  |  | HLP | Health Plan |
|  |  | RSK | Risk Factor |
| TB016 | Query Priority | D | Deferred |
|  |  | I | Immediate |
| TB017 | Query/Response Format | D | Response is in display format |
|  |  | R | Response is in record oriented format |
|  |  | T | Response is in tabular format |

Table 8 : User-defined Table

# 12. Issues and Concerns

12.1 OMS

1. Do we need to store ordering items at each of application of placer ? – 15/10/2002
   1. Eg. CIS have its ordering txn and receiving txn tables; PIS have its ordering txn and receiving txn tables.
2. How the process is, if the filler become a placer – 15/10/2002
   1. How to store the ordering items ? do we required too
3. How to handle a request or order that required a real-time response? – 25/11/2002
   1. Do we still need to include in OMS architecture or build another components such as helperBean ?
4. How to make the teams understand the overall of OMS ? – 25/11/2002

# 13. Guidelines

Rules of creating message order

* + 1. One Provider shall have one MSH
    2. One MSH shall have one ORC or PRI
    3. One ORC or PRI can have one or many order detail segment

Message Relationship

* + 1. Provider code (HFC) is used for relationship between segment