SIMPLE, SECURE TRANSFER OF MEDICAL DOCUMENTS

P2P ETP Messaging Specification - Prescriptions

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19/09/06

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1 Introduction

1.1 Purpose of Document

The purpose of this document is to provide ah HL7 message specification for sending a prescription generated from a GP clinical application to a pharmacy.

1.2 Executive Summary

The Electronic Transfer Of Prescriptions (ETP) project has been split into a number of phases. The initial phases centre on prescriptions and medication charts generated for residents within Aged Care facilities.

The reasoning behind this decision is that Ages Care facilities have all prescriptions filled by a specific pharmacy which removes the complications of patient choice when prescriptions are written.

A prescription is generated by the GP and sent to the pharmacy, the patients' medication chart is also sent to the pharmacy but from the Aged Care facility.

This specification only covers the sending of the prescription from the GP to the pharmacist.

Phase 1a will deal specifically with sending a prescription from a GP using Medical Director to one pre-agreed pharmacy.

These requirements can be met satisfactorily through the use of the HL7 Messaging model outlined in this document.

2 Using this Document

2.1 Navigating

In general, the structure of this document forms a "top-down" view of the messaging requirements, from messaging overview through to detailed message structures and mappings. The key for navigating successfully through this document depends largely on the type of audience utilising it. The following list provides a suggested order of reading for each of the broad audience types:

2.1.1 Experienced HL7 Message Implementers

1. **Data Structures and Values:** The following sections provide detailed technical level content as to the source data reference mappings, the HL7 segments and field structures, and the lookup values for each:

    - ***Error! Reference source not found.***

- *Segment and Field Level* Profile
- *Table Listings*

2. **Message Flow and Context:** The following sections provide an explanation of the message flow, including sender and receiver responsibilities, and the context and conditions in which messaging will take place:

    - *Message Interaction Model*
    - *Message Exchange Rules*

3. **Background Reading:** All other document sections are provided for the experienced implementer as helpful background reading and reference material.

2.1.2 Novice HL7 Message Implementers

Implementers that are relatively new to HL7 message implementation are advised to work through the document in the order it is laid out. This ordering is designed to move from a high level overview of the messaging domain and context, through to the implementable structures and responsibilities and helpful reference material.

2.1.3 Implementation Project Managers

Project Managers requiring an understanding of the implementation requirements without delving to deeply into the technical level detail are advised to work through the document paying special attention to the following sections:

1. **Understanding HL7 and this Implementation**
    - *Executive Summary*

2. **Message Flow and Context**
    - *Message Interaction Model*
    - *Message Exchange Rules*
    - ***Error! Reference source not found.***

3. **Data Overview**
    - *Appendix E:*

2.1.4 Non-Technical Decision Makers and Stakeholders

Readers of this document who wish to have a non-technical understanding of the issues involved in the HL7 Messaging Implementation should pay special attention to the following sections:

1. **Understanding HL7 and this Implementation**
    - *Executive Summary*
    - *Error! Reference source not found.*
2. **Message Flow and Data**
    - *Message Interaction Model*
    - *Appendix E:*

2.2 Message Level Profiles

Each message structure is defined in terms of both the “Train Diagram” and Abstract Syntax Notation and includes appropriate usage and cardinality constraints. Train Diagrams should be interpreted as follows:

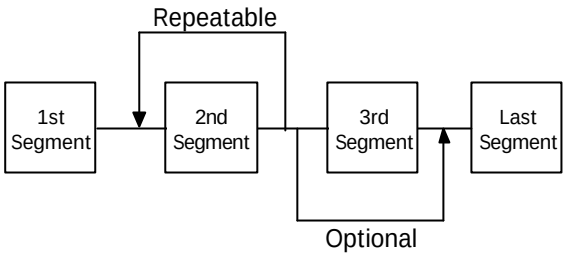


Figure 1 - Train Diagram Interpretation

2.3 Segment and Field Level Profiles

Each segment and field is described in static detail including the following parameters for elements:

Name: The HL7 element name.

Sequence: The sequence reference number for each element.

Data Type: The HL7 data type for this element. HL7 data types are briefly described below. Where a data type is made up of sub-types (composite) the structure of the sub-type will be described immediately below and indented.

Length: The maximum length for each element, including components, sub-components and delimiters.

Usage: Describes the usage and optionality of each element. Interpretations of the usage codes are listed below.

Cardinality: This expands on the usage code by describing the number of possible occurrences (repeats) of each component. A full description of cardinality is listed below.

Table: Where an element uses values from a defined set, the HL7 table reference number will be listed here. Where an element uses a subset of values from a referenced table, the table number will be followed by a dot (.) and a number indicating the subset referenced. (eg 0001.3 indicates that this element uses the subset marked 3 of values from table 0001)

Example Value: For most utilised fields, an example value will be shown here. Where this implementation allows a single valid value in an element, that value will be listed here and the “Implementation Notes” will indicate such.

Implementation Notes: Where a field is conditionally required, the appropriate conditions will be described here. Any other useful information for implementers may be found here.

XRef Project Data Set: Where an HL7 element can be mapped or referenced by a project data set item, the project Data set item will be listed here.

2.4 Data Types

For definitive descriptions of data types and structures, implementers should always refer to the AS4700.x and/or HL7 Standard documents.

Up to HL7 v2.4 the maximum lengths of CE, CK, CN, CNE, CWE, CX, PPN, XAD, XCN, XON, XPN, and XTN data types has been too small and in some cases these are impractical or contradictory. This created a problem as the HL7 Standard prescribes the maximum lengths as mandatory (Chapter 2.6.2), but often site negotiations extended the limiting lengths. HL7 v2.4 increases the lengths of these data types to 250 characters and this has been reflected in this document. Receiving system designers should take note that sending systems may send up to 250 characters in such composite fields, typically in relation to name, address and phone number information.

The table below lists all the HL7 v2.3.1 Data Types and the appropriate format. Where a format is listed as “Composite Type” the Data Type has no elemental format as it is made up of a composite of other data types.

Data Type	Description	Elemental Format
AD	Address	Composite Type
CE	Coded Entry	Composite Type
CF	Coded Element With Formatted Values	Composite Type
CK	Composite ID With Check Digit	Composite Type
CM	Composite	Composite Type
CN	Composite ID And Name	Composite Type
CNE	Coded No Exceptions	Composite Type
CP	Composite Price	Composite Type
CQ	Composite Quality	Composite Type
CWE	Coded With Exceptions	Composite Type
CX	Extended Composite ID With Check Digit	Composite Type
DLN	Drivers License Number	Composite Type
DT	Date	YYYY[MM[DD]]
ED	Encapsulated Data	Composite Type
EI	Entity identifier	Composite Type
FC	Financial Class	Composite Type
FT	Formatted Text (Display)	ASCII displayable text
HD	Hierarchic Designator	Composite Type
ID	ID Coded Value	ASCII Displayable text
IS	ID Coded Value	ASCII Displayable text
JCC	Job Code/Class	Composite Type
MA	Multiplexed Array	Composite Type
MO	Money	Composite Type
NM	Numeric	Integers, decimal points, +- sign
PL	Person Location	Composite Type
PN	Person Name	Composite Type
PPN	Performing Person Time Stamp	Composite Type
PT	Processing type	Composite Type
QIP	Query input Parameter	Composite Type
QSC	Query Selection Criteria	Composite Type
RCD	Row Column Definition	Composite Type
RI	Repeat interval	Composite Type
RP	Reference Pointer	Composite Type
SCV	Scheduling class value	Composite Type
SI	Sequence ID	Non-negative integers
SN	Structured Numeric	Composite Type
ST	String Data.	ASCII Displayable text
TM	Time	HH[MM[SS[.S[S[S[S]]]]]][+/-ZZZZ]
TN	Telephone Number	Composite Type
TQ	Timing/Quantity	Composite Type
TS	Time Stamp (Date & Time) [Note]	YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ]

Data Type	Description	Elemental Format
TX	Text Data (Display)	ASCII Displayable text
VH	Visiting Hours	Composite Type
VI	Version ID	Composite Type
XAD	Extended Address	Composite Type
XCN	Extended Composite Name And Number For Persons	Composite Type
XON	Extended Composite Name And Number For Organizations	Composite Type
XPN	Extended Person Name	Composite Type
XTN	Extended Telecommunications Number	Composite Type

Table 1 - Data Types and Formats

Note: The maximum precision of date/time formats is “YYYYMMDDHHSS.SSSS±ZZZZ” providing accuracy to milliseconds, however truncated values are allowed if the data source has less accuracy, ie. "YYYYMM" to show the month or "YYYY" to show the year only. The time zone ("±ZZZZ") should always be reported, particularly when the hours are reported, to avoid unexpected surprises across time zones.

2.5 Usage

Usage refers to the circumstances under which an item (segment group, segment, data item) appears in a message. Some items must always be present, others may never be present, and others may only be present in certain circumstances. A set of codes has been defined to clearly identify the rules governing the presence of a particular item. The rules govern the expected behaviour of both the sending and receiving application with respect to the item:

Usage Code	Description	Comments
R	Required	The item must be present in the message. **MANDATORY** Messages missing data items that are mandatory due to HL7 or profile requirements may be rejected by the receiving software
RE	Required but may be empty	The item may be missing from the message, but must be sent / understood by the sending/receiving application if there is relevant data. **DESIRABLE** All data items that are available to the sending system software must be sent in the message. All data items that have been entered and /or captured by the sending system software must be sent in the message.
C	Conditional	The item must be present if the specified condition predicate is true. Otherwise, the item must not be present
CE	Conditional but may be empty	The item must be supported if the specified condition is true. However, the item may be missing from the message when the condition is true provided there is no applicable data. If the condition is false, the item should not appear
NS	Not supported	For sending applications, the item will not be sent. For receiving applications, the item group will be ignored if sent
O	Optional	This usage code is not applicable for “Implementation level” profiles. Constrainable profiles may use this code to indicate that support for this item may be determined at a lower constraint level.

Table 2 - Usage Codes and Descriptions

2.6 Cardinality

Cardinality identifies the minimum and maximum number of repetitions for a particular item (Segment Group, Segment or Data Item). Cardinalities are expressed as a minimum-maximum pair of non-negative integers (such that the minimum is less than or equal to the maximum). A conformant application must always send at least the minimum number of repetitions, and may never send more than the maximum number of repetitions:

Cardinality	Description
[0..0]	Element never present
[0..1]	Element may be omitted and it can have at most one Occurrence
[1..1]	Element must have exactly one Occurrence
[0..n]	Element may be omitted or may repeat up to n times
[1..n]	Element must appear at least once, and may repeat up to n times
[0..*]	Element may be omitted or repeat for an unlimited number of times
[1..*]	Element must appear at least once, and may repeat unlimited number of times
[m..n]	Element must appear at least “m” and at most” n” times

Table 3 - Cardinality Codes and Descriptions

2.7 Message Encoding

This document assumes the use of the HL7 “ER7” encoding style. ER7 nominates the following as the recommended delimiting (and reserved) ASCII characters:

Character	Structure	Description
x0D	**SEGMENTS**	The HL7 standard requires that each segment is to be delineated by the use of a Carriage Return character (hex 0D). Implementers should take special note as some operating systems and transmission protocols may, by default, utilise the Line Feed character (hex 0A) or a combination of both to indicate a new line.
|	**ELEMENTS**	Data items are delimited by the element separators, as defined by the HL7 MSH-1 element
^	**COMPONENTS**	Composite data items, which have 2 or more components, are delimited by HL7 component separators
&	**SUB-COMPONENTS**	HL7 components can contain subcomponents delimited by subcomponent separators
~	**REPETITION**	Repetition of data items are delimited by repetition separators
\	**ESCAPE SEQUENCES**	Elements, Components and subcomponents may not include the reserved characters. If required as part of a data item, the reserved characters may be escaped by replacing as follows: **Reserved Character** — **Escaped Character Sequence** | — \F\

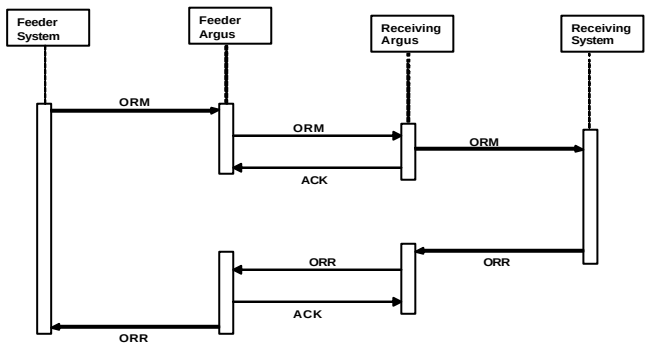
		^	\S\
		&	\T\
		~	\R\
		\	\E\
		Implementers Note: This method of "escaping" characters as a sequence differs somewhat from the traditional method used in programming languages where a single reserved escaping character forces the single character following to be "escaped".	

Table 4 - ER7 Recommended Reserved ASCII Characters

3 Message Dynamic Definition

3.1 Message Interaction Model

To exchange pharmacy information the sending system sends a HL7 Pharmacy Order Message (ORM). The receiving system sends a HL7 Pharmacy Order Response (ORR) as confirmation.



Due to the time constraints ORR's will not be covered in the scope of phase1a of this project.

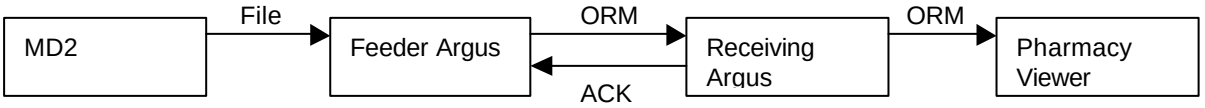


Figure 2 - Interaction Model – Phase1a

Message	Action
File from MD2	Prescription data incorporated into ORM message structure.
ORM^O01 from Feeder Argus to Receiving Argus	Via encrypted email attachment
ACK (accept level) sent from Receiving Argus to Feeder Argus	On failure by Feeder Argus to receive ACK after specified number of times message has been sent (or a negative ACK is received), an Email notification will be sent to authorised personnel.
ORM^O01 from Receiving Argus to Pharmacy Viewer	1. Unencrypted File placed in directory;

Table 5 - Interaction Model Description

3.2 Message Exchange Rules

3.2.1 Acknowledgment Protocol

When sending messages according to the interaction model, the sending system shall have the following expectations in regard to receiving acknowledgements from the receiving system:

System	HL7 Accept Acknowledgment		HL7 Application Acknowledgment	
	Expectation	MSH-15	Expectation	MSH-16
Feeder System	Never	NE	Never	NE
Feeder ARGUS	Always	AL	Never	NE
Receiving ARGUS	Always	AL	Never	NE
Receiving System	Never	NE	Never	NE

Table 6 - Acknowledgment Protocols

3.2.2 Accept Acknowledgements (ACK)

An HL7 “Accept Acknowledgement” indicates to the sending system one of two possibilities:

1. The receiving system has successfully stored the message and releases the sending system from the responsibility of re-sending the message; or
2. The receiving system has NOT stored the message and the sending system retains responsibility for the message.

3.2.3 Application Acknowledgements (ORR)

An HL7 “Application Acknowledgement” indicates to the original sending application one of two possibilities:

1. The final receiving application has successfully processed the message; or
2. The final receiving application has NOT been able to successfully process the message due to an error or rejection.

Application Acknowledgements (ORR) will not be generated as part of this project.

3.2.4 Message Data Transmission Principles

The amount and detail of data sent – apart from required data items listed in the "***Error! Reference source not found.***" section – will depend on the clinical and data management practice of each implementation. The following basic principles should be given consideration:

- The required data identified in the "Message Summary Definition" section **must** always be sent, else the message will be rejected as invalid (via negative acknowledgement).
- The sending system should send as much information as possible – the receiving system can then select the data it requires.

3.2.5 Acknowledgment Data Transmission Principles

When acknowledging a message, the following basic principles should be given consideration:
The required data identified in the "***Error! Reference source not found.***" section **must** always be sent, else the acknowledgment may not be processed and the original message will be resent.

- The responding system should send back as much information as possible, as this acts as a "safety check" on the data of the original message. The receiving system can then decide if it wants to compare the returned data with the original data sent or discard it.

4 Message Summary Definition

4.1 Message Level Structure and Profile Order Messages

Note: The Static Definition is partial. Only those items relevant to this implementation have been shown. Basic processing rules have been determined.

Each message consists of a number of segments. Each segment groups together data items of a similar nature, eg. the MSH segment holds message control and routing information, the PID holds patient demographic information, etc.

Message profiles indicate the message structure, usage and cardinality, textual description of the structure and an HL7 master chapter reference. [Square Brackets] indicate that a segment or group of segments are optional, while {curly brackets} indicate that a segment or group of segments may repeat according to cardinality rules.

4.1.1 ORM – Pharmacy Order Message

Figure 3 is an overview of the order message diagram (ORM) and consists of the segments as detailed.

The function of the ORM – pharmacy order message is to initiate the transmission of information about a prescription order. This includes placing new orders, cancellation of existing orders and discontinuation. ORM messages can originate also with a placer, filler, or an interested third party.

The trigger event for this message is any change to a prescription order. Such changes include submission of new orders, cancellations and updates.

The Message header (MSH) is required. See AS 4700.1, Table 6.2, for Australian implementation of message header data elements and usage notes.

NOTE: The use of the Provider related (PRD) segment is no longer permitted for pharmacy messages. Ordering facility details are now accommodated in the ORC-21 to ORC-23 data elements.

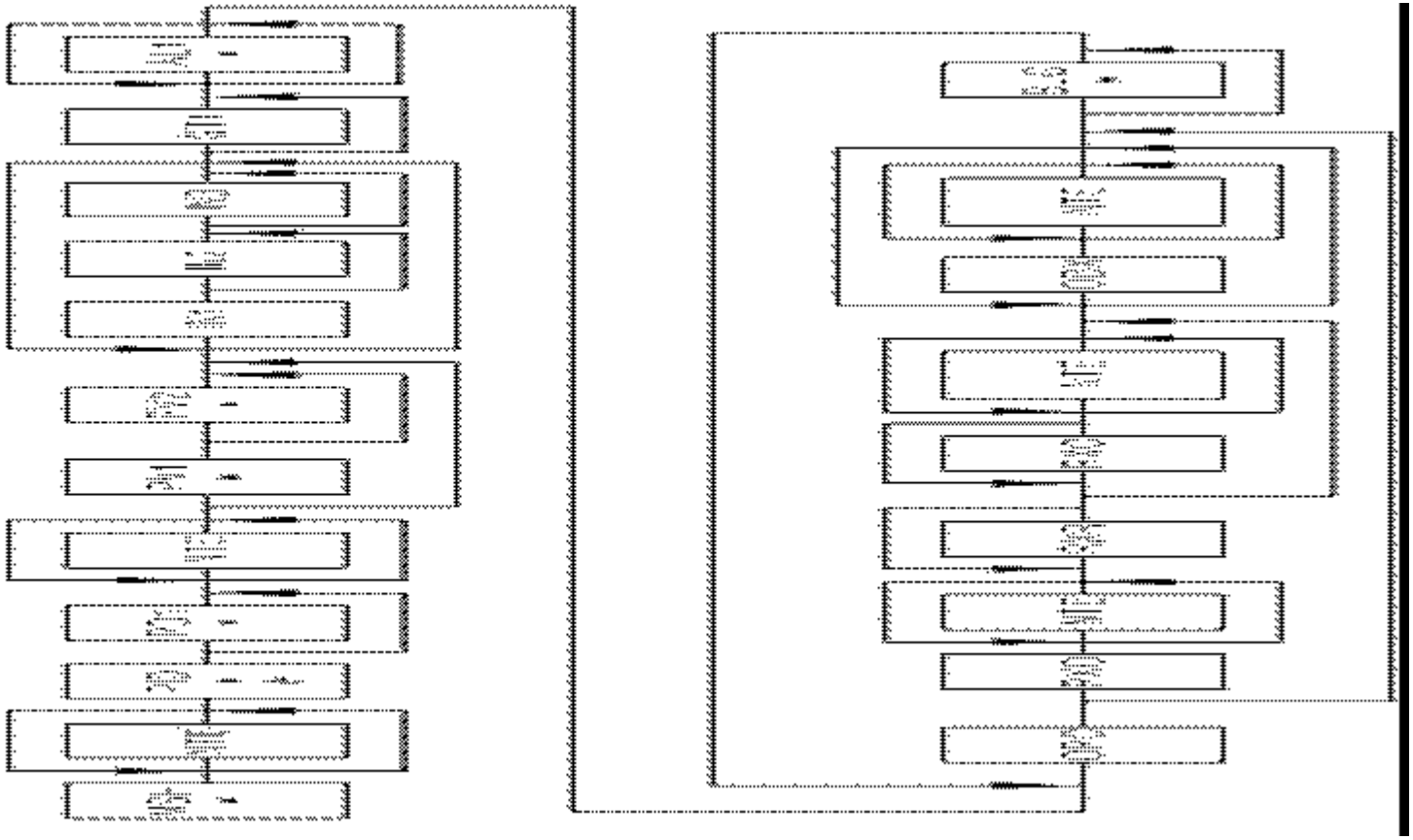


Figure 3 – ORM – Pharmacy Order Message

4.1.2 ORM Pharmacy / Treatment Order Message Level Profile

ORM	Usage	Cardinality	Description	HL7 Chapter
MSH	R	[1..1]	Message Header	2
[{NTE}]	X	[0..0]	Notes and Comments (for Header)	2
[				
PID	R	[1..1]	Patient Identification	3
[PD1]	X	[0..0]	Additional Demographics	3
[{NTE}]	X	[0..0]	Notes and Comments (for Patient ID)	2
[	X	[0..0]	Group – Patient Visit	
PV1	X	[0..0]	Patient Visit	3
[PV2]	X	[0..0]	Patient Visit Additional Info	3
]				
[{	X	[0..0]	Group – Insurance	
IN1	X	[0..0]	Insurance	6
[IN2]	X	[0..0]	Insurance – Additional Info	6
[IN3]	X	[0..0]	Insurance – Add'l Info - Cert	6
}]				
[GT1]	X	[0..0]	Guarantor	6
[{AL1}]	X	[0..0]	Allergy Information	3
]				
{				
ORC	R	[1..1]	Common Order	4
[				
RXO	R	[1..1]	Pharmacy Treatment Order	4
[{NTE}]	O	[0..*]	Notes and Comments (for RXO)	2
{RXR}	R	[1..1]	Pharmacy Treatment Route	4
[				
{RXC}	X	[0..0]	Pharmacy Treatment Component	4
[{NTE}]	X	[0..0]	Notes and Comments (for RXC)	2
]				
[				
{				
OBX	X	[0..0]	Observation/Result	7
[{NTE}]	X	[0..0]	Notes and Comments (for OBX)	2
}				
]				
]				
[BLG]	X	[0..0]	Billing Segment	3
}				

Table 7 – ORM – Pharmacy / Treatment Order Message Level Profile

4.1.2.1 ORM use notes

a) The abstract message syntax for some order segments vary slightly. Please refer to the appropriate sections in Chapter 4 "Order Entry" of the HL7 reference manual for specific examples:

b) The segment named “Order Detail Segment” represents whichever of these order detail segment(s) is appropriate to the message, currently OBR, RQD, RQ1, RXO, ODS, ODT.

c) The NTE segment(s) can be included in the ORM message in four places; in each place the NTE refers to the segment which it follows. In particular, the NTEs following the MSH refer only to the message header, the NTEs following the order detail segment apply to the service defined by that ORC and order detail segment.

d) The PID segment is required if and only if new orders are being entered and they are related to a particular patient. For non-patient-related orders the PID segment is never included.

e) The optional PV1 segment is present mainly to permit transmission of patient visit information such as current location with an order.

f) The order detail segments are not required when a simple control message is being sent. For example, a hold message (*ORC-1-order control* = HD) does not require that an order segment follow it.

g) *ORC-1-order control* is critical to the operation of both ORM and ORR messages. For example, to request cancellation of an order, one would transmit a CA in *ORC-1-order control* of the appropriate ORC. (See the definition of *ORC-1-order control*.)

h) A method to inquire for order status in the display format is provided in Chapter 2, and uses the record format provided in Chapter 7.

i) Each order message that defines any type of new order (*ORC-1-order control* = NW, CH, RO, or SN) requires an ORC/OBR pair to define each order to the receiving application. This also applies to any other types of orders, with the OBR being replaced by the appropriate order detail segment, as defined below. Thus two consecutive ORCs could occur if a cancel order request (needing only the order numbers) were followed by a second cancel order request. Many other examples are possible.

j) The insurance segments (IN1, IN2, and GT1) are typically used for external fillers, e.g., reference labs, where formal ADT transactions are overly complex or not needed.

4.1.3 ORR – General Order Response Message

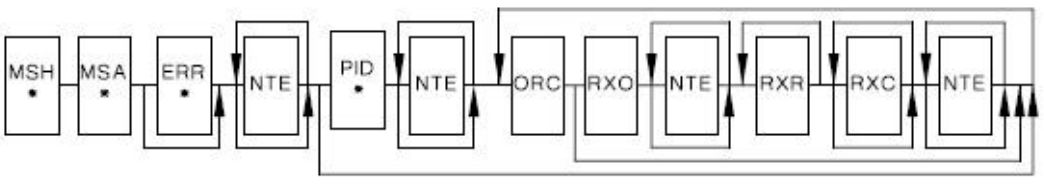


Figure 4 – ORR – General Order Response Message

The function of this message is to respond to an ORM message. An ORR message is the application acknowledgment to an ORM message. In ORR the PID and ORC segments are optional, particularly in case of an error response. However, ORC segments are always required in ORR when an order detail segment is present. For example, a response ORR might include only the MSH and MSA, but if an RQ1 is present, it must be preceded by an ORC.

The function (e.g., cancel, new order) of both ORM and ORR messages is determined by the value in *ORC-1-order control*. (See the table of order control values for a complete list.)

ORR	General Order Acknowledgment Message	Chapter
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error	2
[{NTE}]	Notes and Comments (for Header)	2
[		
[PID	Patient Identification	3
[{NTE}]]	Notes and Comments (for Patient ID)	2
{		
ORC	Common Order	4
[Order Detail Segment] OBR, etc.		4
[{NTE}]	Notes and Comments (for Detail)	2
[{CTI}]	Clinical Trial Identification	7
}		
]		

Note: ORRs for supply, pharmacy, and dietary orders all have slightly different message syntax; refer to the appropriate sections as detailed in Section 4.1.2.1, "ORM use notes," for exact details.

4.1.4 Accept Level Acknowledgement Structure

The Accept Level Acknowledgement Message (ACK) is a generic acknowledgement of the receipt ONLY of the ORM messages, to and from the transport systems (ARGUS).

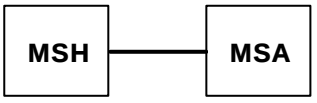


Figure 4 – Constrained Generic ACK Structure

If no ACK is received by the sending system (ARGUS to ARGUS), it is assumed that the ORM message was never successfully sent and needs to be re-sent. In that case the message will be re-sent by the ARGUS system up to 3 times (or other user-configurable number) and then a notification of failure will be sent to the appropriate personnel.

4.1.5 ACK Message Level Profile

ACK	Usage	Cardinality	Description	HL7 Chapter
MSH	R	[1..1]	Message Header	2

MSA	R	[1..1]	Message Acknowledgment	3

Table 8 - ACK Message Level Profile

4.2 Segment and Field Level Profile

Name - MSH	Sequence	Data Type	Length	Usage	Cardinal'y	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
4.2.1 MSH – Message Header 2.24.1							**MSH|^~\&|CIS|Practice Name|PVA|Stuart Park Pharmacy Name|20060921145034.2234+1000||ORM^O01^ORM_O01|22F4A52C5A|P|2.3.1^Aus&Australia&ISO3166|||AL|NE|AUS** **Message Header** - The MSH segment defines the intent, source, destination, and some specifics of the syntax of a message ***AS4700.1-2001***
Field Separator	1	ST	1	R	[1..1]		**|** This field contains the separator between the segment ID and the first real field, MSH-2-encoding characters. 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 |, (ASCII 124) *2.24.1.1*
Encoding Characters	2	ST	4	R	[1..1]		**^~\&** This field contains the four characters in the following order: the component separator, repetition separator, escape character, and subcomponent separator. Recommended values are ^~\& (ASCII 94, 126, 92, and 38, respectively). *2.24.1.2*
Sending Application	3	HD	180	R	[1..1]		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 HL7 messages within the enterprise. *2.24.1.3*
namespace ID	3.1	IS		R	[1..1]	0361	**CIS** Represent the name allocated to the sending application. Due to the number of clinical applications it is suggested to use a generic application CIS – Clinical Information System
universal ID	3.2	ST		O	[0..1]		

Name - MSH	Sequence	Data Type	Length	Usage	Cardinal'y	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
universal ID type	3.3	ID		O	[0..1]	0301	
Sending Facility	4	HD	180	R	[1..1]		**Practice Name** This field further describes the sending application, MSH-3-sending application. To include not just the sending facility but other organizational entities such as a) the organizational entity responsible for sending application; b) the responsible unit; c) a product or vendor's identifier, etc Extract from the ArgusMessenger settings *2.24.1.4*
namespace ID	4.1	IS		R	[1..1]	0362	Sending institution ("facility"). Used to identify the organisation sending the discharge/referral message.
universal ID	4.2	ST		O	[0..1]		
universal ID type	4.3	ID		O	[0..1]	0301	
Receiving Application	5	HD	180	R	[1..1]		This field uniquely identifies the receiving application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise. *2.24.1.5*
namespace ID	5.1	IS		R	[1..1]	0361	**PVA** Receiving computer program. This determines which application will process the message. As there will be many different receiving applications, it may be appropriate to use the above as standard.
universal ID	5.2	ST		O	[0..1]		
universal ID type	5.3	ID		O	[0..1]	0301	
Receiving Facility	6	HD	180	R	[1..1]		This field identifies the receiving application among multiple identical instances of the application running on behalf of different organizations *2.24.1.6*
namespace ID	6.1	IS		R	[1..1]	0362	**Stuart Park Pharmacy** This element is used to indicate the location of the organisation and facility intended to receive the message. In this implementation there is only one pharmacy and the element can therefore be hard coded
universal ID	6.2	ST		O	[0..1]		
universal ID type	6.3	ID		O	[0..1]	0301	
Date/Time Of Message	7	TS	26	R	[1..1]		This field contains the date/time that the sending system created the message. If the time zone is specified, it will be used throughout the message as the default time zone. *2.24.1.7*

Name - MSH	Sequence	Data Type	Length	Usage	Cardinal'y	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
Date/Time	7.1	NM		R	[1..1]		**20060921145034.2234+1000** This is the time the message was dispatched by the sending system. Note: This item should be sent with the maximum precision possible. The time zone (ZZZZ) should be sent to avoid unexpected surprises. YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZZ]
degree of precision	7.2	ST		O	[0..1]		
Security	8	ST	40	O	[0..1]		*2.24.1.8*
Message Type	9	CM	15	R	[1..1]	0076	This field contains the message type, trigger event, and the message structure ID for the message. The receiving system uses this field to recognize the data segments, and possibly, the application to which to route this message. *2.24.1.9*
message type	9.1	ID		R	[1..1]	0076	**ORM** In this implementation, use ORM to indicate an order message, ORR to indicate an order response, and ACK to indicate an acknowledgement of message transport.
trigger event	9.2	ID		CE	[0..1]	0003	**O01** In this implementation, use O01 to indicate an order message, and O02 to indicate an order response message. This element is not required to be populated when sending a generic ACK message.
message structure	9.3	ID		CE	[0..1]	0354	**ORM_O01** Use "REF_I12" for REF message and "RRI_I12" for RRI message. Not used for ACK messages
Message Control ID	10	ST	20	R	[1..1]		**22F4A52C5A** A sender-unique message identifier. This value will be echoed back in MSA-2 of the corresponding acknowledgement message, with the responding system generating a new Message ID unique to them, for this field. *2.24.1.10*
Processing ID	11	PT		R	[1..1]		*2.24.1.11*
processing ID	11.1	ID		R	[1..1]	0103	**P** This item informs the receiving application how to process this message.
processing mode	11.2	ID		O	[0..1]	0207	
Version ID	12	VID	60	R	[1..1]	0104	This item informs the receiving application of the base level standard applicable to the message. *2.24.1.12*
version ID	12.1	ID		R	[1..1]	0104	**2.3.1**
internationalization code	12.2	CE		R	[1..1]		

Name - MSH	Sequence	Data Type	Length	Usage	Cardinal'y	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
identifier	12.2.1	ST		R	[1..1]		**AUS**
text	12.2.2	ST		O	[0..1]		**Australia**
name of coding system	12.2.3	IS		R	[1..1]		**ISO3166**
alternate identifier	12.2.4	ST		O	[0..1]		
alternate text	12.2.5	ST		O	[0..1]		
alt. coding system	12.2.6	IS		O	[0..1]		
international version ID	12.2.3	CE		O	[0..1]		
Sequence Number	13	NM	15	O	[0..1]		*2.24.1.13*
Continuation Pointer	14	ST	180	O	[0..1]		*2.24.1.14*
Accept Acknowledgment Type	15	ID	2	O	[0..1]	0155	**AL** This item specifies the way the message will be acknowledged by the receiving system. *2.24.1.15*
Application Ack Type	16	ID	2	O	[0..1]	0155	**NE** This item specifies the way the message will be acknowledged by the receiving system. *2.16.9.16*
Country Code	17	ID	3	O	[0..1]		**AUS** This item holds the Country of origin of this message. *2.16.9.17* *AS 4700.1-2001 Table 6.2*
Character Set	18	ID	16	O	[0..1]	0211	*2.16.9.18*
Principal Language Of Message	19	CE	250	O	[0..1]		This item holds the language in which the information of this message is sent. *2.16.9.19*
identifier	1	ST		O	[0..1]		
text	2	ST		O	[0..1]		
name of coding system	3	IS		O	[0..1]	0396	
alternate identifier	4	ST		O	[0..1]		
alternate text	5	ST		O	[0..1]		

Name - MSH	Sequence	Data Type	Length	Usage	Cardinal'y	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
alternate coding system	6	IS		O	[0..1]	0396	
Alt Char Set H&ling Scheme	20	ID	20	O	[0..1]	0356	*2.16.9.20*

Name - PID	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
4.2.2 PID – Patient Identifier							**PID|||MD000001^^^CIS^MR^Practice Name|| Anderson^David^^^MR^^L|||||Old Git Nursing Home, 61 Wallace Street^^Ballarat^^3350^^C** **Patient identification** - The PID 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. ***AS4700.1-2001***
Set ID - PID	1	SI	4	O	[0..1]		*3.3.2.1*
Patient ID	2	CX	20	O	[0..1]		*3.3.2.2*
Patient Identifier List	3	CX	250	R	[1..*]		**MD000001^^^CIS^MR^Practice Name** This field contains the list of identifiers (one or more) used by the facility to uniquely identify a patient (e.g., medical record number, billing number, birth registry, national unique individual identifier, etc.). In this example only one repetition has been shown. N.B. The script.out file contains pension no., Medicare no. Medical Director patient ID and safety net number. Any that are present should be included in the patient identifier list *3.3.2.3*
ID	3.1	ST		R	[1..*]		**MD000001** **Actual patient id e.g. Medicare Number, DVA Number** There are some recent indications that the Medicare and/or DVA number can only be used for the purpose it was created for, ie. billing. However, this should not prevent it from being sent in an HL7 message. This field can additionally hold the discharging practitioner's or institution's medical record ("MR") and/or patient reference ("PN") number. See Appendix A: Medicare Number Specifications for Medicare Number and Appendix B: DVA Card Number Specifications for DVA number specifications
Check digit	3.2	ST			[0..*]		See Appendix A: Medicare Number Specifications for Medicare Number specifications, including check digit and subnumerate. **Not used for other forms of identifier available in the MD2 file**

Name - PID	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
Check Digit Scheme	3.3	ID			[0..*]	0061	Medicare# "AUSMC" **Not used for other forms of identifier**
assigning authority	3.4	HD		R	[1..*]		This field defines the authority/organisation that is responsible for assigning the ID number. For other values refer to table. Medicare# "AUSHIC" DVA# "AUSDVA" Patient ID "MIMS" Medical Record# <practice.id> AUSPEN for Pension Number AUSSNN for Safety Net Number
namespace ID	3.4.1	IS		R	[1..*]	0363	**CIS**
universal ID	3.4.2	ST		O	[0..1]		
universal ID type	3.3.3	ID		O	[0..1]	0301	
identifier type code (ID)	3.5	IS		R	[1..1]	0203	**MR** **MC – Medicare Number** **MR – Medical Record Number** **PEN – Pension Number** **SNN – Safety Net Number** **WCN – Workers Comp Number**
assigning facility	3.6	HD		O	[0..1]		The assigning facility of the organisation responsible for issuing the ID listed in PID-3.1. For larger organisations, this may be distinct from the "assigning authority", however in some cases it may be the same.
namespace ID	3.6.1	IS		R	[1..1]	0363	**Practice Name**
universal ID	3.6.22	ST		O	[0..1]		
universal ID type	3.6.33	ID		O	[0..1]	0301	
Alternate Patient ID - PID	4	CX	20	O	[0..1]		*3.3.2.4*
Patient Name	5	XPN	250	R	[1..*]		**Anderson^David^^^MR^^L** This composite element contains the various (self explaining) attributes, which

Name - PID	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
							form the Patient's name. *3.3.2.5*
family name	5.1	PN		R	[1..*]		
surname	5.1.1	IS		R	[1..*]		**Anderson** Family (last) name of the patient.
given name	5.2	IS		R	[1..*]		**David** First (given) name of the patient.
2nd & further given names or initials thereof	5.3	IS		O	[0..*]		Second (or other) name of the case. Unavailable in MD2 file
suffix (for example,, JR or III)	5.4	IS		O	[0..*]		Unavailable in MD2 file
prefix (for example,, DR)	5.5	IS		O	[0..*]	AS 4590-1999	**MR**
degree (for example,, MD)	5.6	IS		O	[0..*]	0360	
name type code	5.7	ID		R	[0..*]	0200	**L** Use 'Name Type' component to distinguish the function of the different names in repeating instances. By default use "L" to represent the legally known name.
Name Representation code	5.8	ID		O	[0..*]	0465	
Mother's Maiden Name	6	XPN	250	O	[0..*]		*3.3.2.6*
family name	6.1	PN		O	[0..*]		
surname	6.1.1	IS		O	[0..*]		
given name	6.2	IS		O	[0..*]		
2nd & further given names or initials thereof	6.3	IS		O	[0..*]		
suffix (for example,, JR or III)	6.4	IS		O	[0..*]		
prefix (for example,, DR)	6.5	IS		O	[0..*]	AS 4590-1999	
degree (for example,, MD)	6.6	IS		O	[0..*]	0360	

Name - PID	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
name type code	6.7	ID		O	[0..*]	0200	
Name Representation code	6.8	ID		O	[0..*]	0465	
Date/Time Of Birth	7	TS	26	O	[0..1]		*3.3.2.7*
Date/Time	7.1	NM		O	[O..1]		This item should be sent with the maximum precision possible. The time zone (ZZZZ) should be sent to avoid unexpected surprises. YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZZ]. However YYMMDD is acceptable Not available in MD2 file
degree of precision	7.2	ST		O	[0..1]		
Administrative Sex	8	IS	1	O	[0..1]	0001	Not available in MD file
Patient Alias	9	XPN	250	O	[0..*]		Not available in MD file Multiple alias/skin names allowed by repetitions of this element. *3.3.2.9*
Surname	9.1	ST		O	[0..*]		Family (last) name of the case. Only required if patient alias present. Therefore not required for MD script file
own surname prefix	9.1.1	ST		O	[0..*]		
own surname	9.1.2	ST		O	[0..*]		
surname prefix from partner/spouse	9.1.3	ST		O	[0..*]		
given name	9.2	ST		O	[0..*]		First (given) name of the case. Only required if patient alias present. Therefore not required for MD script file
2nd & further given names or initials thereof	9.3	ST		O	[0..*]		
suffix (for example,, JR or III)	9.4	ST		O	[0..*]		
prefix (for example,, DR)	9.5	ST		O	[0..*]	AS 4590-1999	
degree (for example,, MD)	9.6	IS		O	[0..*]	0360	
name type code	9.7	ID		O	[0..*]	0200	Only required if patient alias present. Therefore not required for MD script file

Name - PID	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
Race	10	CE	250	O	[0..1]		**9^Not Stated^NHDDV10-000001** This field refers to the patient's race/indigenous status. *15.4.6.27*
identifier	10.1	ST		O	[0..1]	0005	**9**
text	10.2	ST		O	[0..1]		**Not Stated**
name of coding system	10.3	IS		O	[0..1]	0396	**NHDDV10-000001** Coding system used for Indigenous status. In this implementation use fixed value of "NHDDV10-000001" to represent the applicable NHDD code set.
alternate identifier	10.4	ST		O	[0..1]		
alternate text	10.5	ST		O	[0..1]		
name of alternate coding system	10.6	IS		O	[0..1]	0396	
Patient Address	11	XAD	250	O	[0..*]		**Old Git Nursing Home, 61 Wallace Street^^Ballarat^^3350^^C** This field contains the primary mailing address of the patient. Multiple addresses for the same person may be sent in the following sequence: The primary mailing address must be sent first in the sequence (for backward compatibility); if the mailing address is not sent, then a repeat delimiter must be sent in the first sequence. *3.3.2.11*
street address (SAD)	11.1	SAD		R	[1..*]		
street or mailing address	11.1.1	ST		R	[1..*]		**Old Git Nursing Home, 61 Wallace Street** Address Line 1
street name	11.1.2	ST		O	[0..*]		
dwelling number	11.1.3	ST		O	[0..*]		
other designation	11.2	ST		O	[0..*]		Address Line2 Not available in MD script file
city	11.3	ST		O	[0..*]	AS 5017	**Ballarat** Name of suburb, town, etc.
state or province	11.4	ST		O	[0..*]	AS 5017	Not available in MD script file

Name - PID	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
zip or postal code	11.5	ST		O	[0..*]	AS 5017	**3350**
country	11.6	ID		O	[0..*]	0399	Not available in MD script file
address type	11.7	ID		R	[1..*]	0190	**C** In this implementation the address type is fixed as “C” – current address.
other geographic designation	11.8	ST		O	[0..*]		Address Line 3
county/parish code	11.9	IS		O	[0..*]	0289	
census tract	11.10	IS		O	[0..*]	0288	
address representation code	11.11	ID		O	[0..*]	0465	
address validity range	11.12	DR		O	[0..*]		
County Code	12	IS	4	O	[0..*]	0289	Superseded refer to PID-11 Patient address component 9
Phone Number - Home	13	XTN	250	O	[0..*]		Repetitions of this element are used to contain the home, mobile and fax numbers, and email address. *3.3.2.13*
[(999)] 999-9999 [X99999][C any text]	13.1	TN		O	[0..*]		
telecommunication use code	13.2	ID		O	[0..*]	0201	Used to distinguish this element between private phone numbers and email addresses.
telecommunication equipment type (ID)	13.3	ID		O	[0..*]	0202	Used to distinguish this element as referring to a telephone, internet or fax machine.
Email address	13.4	ST		C	[0..*]		IF PRD-13.3 = "Internet" THEN PRD-13.4 must be populated ELSE PRD-13.4 must = NULLEmail address for case person.
Country Code	13.5	NM		O	[0..*]		
Area/city code	13.6	NM		O	[0..*]		
Phone number	13.7	NM		C	[0..*]		IF PRD-13.3 = "Internet" THEN PRD-13.7 must = NULL ELSE PRD-13.7 must be populated
Extension	13.8	NM		O	[0..*]		
any text	13.9	ST		O	[0..*]		
Phone Number - Business	14	XTN	250	O	[0..*]		Used only for the work phone number. *3.3.2.14*
[(999)] 999-9999 [X99999][C any text]	14.1	TN		O	[0..*]		

Name - PID	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
telecommunication use code	14.2	ID		O	[0..*]	0201	Should only be used to represent a Work Phone number.
telecommunication equipment type (ID)	14.3	ID		O	[0..*]	0202	
Email address	14.4	ST		C	[0..*]		
Country Code	14.5	NM		O	[0..*]		
Area/city code	14.6	NM		O	[0..*]		
Phone number	14.7	NM		C	[0..*]		
Extension	14.8	NM		O	[0..*]		
any text	14.9	ST		O	[0..*]		
Primary Language	15	CE	250	O	[0..1]	0296	**96^Inadequately described^NHDDV10-000132** This composite element indicates the patient's primary or preferred language for communication. This may be verbal or non- verbal communication *3.3.2.15*
Identifier	15.1	ST		O	[0..1]	0201	**96**
Text	15.2	ST		O	[0..1]	0202	**Inadequately described**
Name of Coding System	15.3	ST		O	[0..1]		**NHDDV10-000132**
Marital Status	16	CE	250	O	[0..1]	0002	*3.3.2.16*
Religion	17	CE	250	O	[0..1]	0006	*3.3.2.17*
Patient Account Number	18	CX	250	O	[0..1]		*3.3.2.18*
SSN Number - Patient	19	ST	16	O	[0..1]		*3.3.2.19*
Driver's License Number - Patient	20	DLN	25	O	[0..1]		*3.3.2.20*
Mother's Identifier	21	CX	250	O	[0..1]		*3.3.2.21*
Ethnic Group	22	CE	250	O	[0..1]	0189	*3.3.2.22*
Birth Place	23	ST	250	O	[0..1]		*3.3.2.23*
Multiple Birth Indicator	24	ID	1	O	[0..1]	0136	*3.3.2.24*
Birth Order	25	NM	2	O	[0..1]		*3.3.2.25*
Citizenship	26	CE	250	O	[0..1]	0171	*3.3.2.26*
Veterans Military Status	27	CE	250	O	[0..1]	0172	*3.3.2.27*
Nationality	28	CE	250	O	[0..1]	0212	*3.3.2.28*
Patient Death Date & Time	29	TS	26	C	[0..1]		This field contains the date and time at which the patient death occurred IF PID-30 = "Y" THEN PID-29 may be populated ELSE PID-29 must be null *3.3.2.29*
Date/Time	29.1	NM		R	[1..1]		This item should be sent with the maximum precision possible. The time zone (ZZZZ) should be sent to avoid unexpected surprises. YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZ Z]

Name - PID	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
degree of precision	29.2	ST		O	[0..1]		
Patient Death Indicator	30	ID	1	C	[0..1]	0136	This field indicates whether the patient is deceased IF PID-29 is populated THEN PID-30 must = "Y" ELSE PID-29 may be populated. Patient is deceased = "Y" Patient is not deceased = "N"

Name - ORC	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
4.2.3 ORC – Common Order							**ORC|NW|000005E^CIS|||||||20060921000000.0000+1000|||345908^Dr. General Practitioner^^^^^^PRES^AUSHIC||^WPN^PH^^^^0353352220|||||345908^Dr. General Practitioner^^^^^^PRES^AUSHIC|||^WPN^PH^^^^0353352220|13, Pill Street,^^Melbourne^^3000^^C|** Common Order - The ORC segment is used to transmit data elements that are common to all orders (all types of services that are requested). It is required in both the pharmacy prescription order (ORM) and pharmacy prescription order acknow ledgment (ORR) messages. ***AS4700.3-2002***
Order Control	1	ID	2	R	[1..1]	0119	**NW** *4.3.1.1*
Placer Order Number	2	EI	22	C	[1..1]		**000005E^CIS** This is the placer organisations order number *4.3.1.2*
identifier	2.1	ST	15		[0..1]		**000005E** Unique script number from the MD script.out file
Namespace ID	2.2	IS	6		[0..1]		**CIS**
Universal ID	2.3	ST			[0..1]		
Universal ID Type	2.4	ID			[0..1]		
Filler Order Number	3	EI	22	C	[1..1]		This is the filler organisations order number *4.3.1.3*
identifier	3.1	ST	15		[0..1]		
Namespace ID	3.2	IS	6		[0..1]		
Universal ID	3.3	ST			[0..1]		
Universal ID Type	3.4	ID			[0..1]		
Placer Group Number	4	EI	22	O	[0..1]		This field allows an order placing application to group sets of orders together and subsequently identify them. If the prescription contains multiple item, place the prescription number in here *4.3.1.4*
identifier	4.1	ST	15		[0..1]		
Namespace ID	4.2	IS	6		[0..1]		

Name - ORC	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
Universal ID	5.3	ST			[0..1]		
Universal ID Type	5.4	ID			[0..1]		
Order Status	5	ID	2	O	[0..1]	0038	This field specifies the status of an order A - Some, but not all, results available CA - Order was canceled CM - Order is completed DC - Order was discontinued ER - Error, order not found HD - Order is on hold IP - In process, unspecified RP - Order has been replaced SC - In process, scheduled *4.3.1.5*
Response Flag	6	ID	1	O	[0..1]	0121	This field allows the placer (sending) application to determine the amount of information to be returned from the filler. Sometimes the requested level of response may not be possible immediately, but when it is possible, the filler (receiving) application must send the information. When the field is null, D is the default value of the field. E - Report exceptions only R - Same as E, also Replacement and Parent-Child D - Same as R, also other associated segments F - Same as D, plus confirmations explicitly N - Only the MSA segment is returned *4.3.1.6*
Quantity / timing	7	TQ	200	O	[0..1]		This field determines the priority, quantity, frequency, and timing of an atomic service. Order segments should be thought of as describing an atomic service. It is a composite field that is defined in detail in Section **Error! Reference source not found.**, "Quantity/Timing (TQ) Definition." *4.3.1.7*
Parent	8	CM	200	O	[0..1]		This field relates a child to its parent when a parent-child relationship exists. The parent-child mechanism is described under *ORC-1-order control* notes. *4.3.1.8*
Date / time of transaction	9	TS	26	O	[0..1]		**20060921000000.0000+1000**

Name - ORC	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
							Actual date/time that the order was entered into the ordering application. *4.3.1.9*
Entered By	10	XCN	120	O	[0..*]		This field contains the identity of the person who actually keyed the request into the application. *4.3.1.10*
Verified By	11	XCN	120	O	[0..*]		Other authorised provider *4.3.1.11*
Ordering Provider	12	XCN	120	O	[1..*]		**345908^Dr. General Practitioner^^^^^^PRES^AUSHIC** This field contains the identity of the person who is responsible for creating the request (i.e., ordering physician). *4.3.1.12*
ID Number	12.1	ST		O	[1..*]		**345908** Prescriber Number
Family Name	12.2	ST		R	[1..*]		**Dr. General Practitioner** **Prescriber Surname** **In the MD2 file the Drs name is only available as one long string, there are no individual fields**
Last name prefix	12.2.1	ST		O	[0..*]		
Given Name	12.3	ST		O	[0..*]		**Prescriber First Name** Unavailable in MD2 file as a separate field
Middle Initial or Name	12.4	ST		O	[0..*]		Second (or other) name of the case. Unavailable in MD2 file as a separate field
suffix (for example,, JR or III)	12.5	ST		O	[0..*]		Unavailable in MD2 file as a separate field
prefix (for example,, DR)	12.6	ST		O	[0..*]	AS 4590-1999	Unavailable in MD2 file as a separate field
degree (for example,, MD)	12.7	IS		NS	[0..*]	0360	
Assigning Authority	12.8	ST		R	[1..*]		**PRES**
Namespace ID	12.8.1	ST		R	[1..*]		**PRES**
Universal ID	12.8	ST		O	[0..*]		

Name - ORC	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
	.2						
Universal ID Type	12.8 .3	IS		O	[0..*]		
Assigning Facility	12.9	ST		R	[1..*]		**AUSHIC**
Namespace ID	12.9 .1	ST		R	[1..*]		**AUSHIC**
Universal ID	12.9 .2	ST		O	[0..*]		
Universal ID Type	12.9 .3	IS		O	[0..*]		
Enterers Location	13	PL	80	O	[0..*]		**Use ORC-21 to ORC24 for ordering provider location details**
Call Back Phone number	14	XTN	40	O	[0..2]		**^WPN^PH^^^^03 53352220** Telephone number to call for clarification. *4.3.1.14*
[(999)] 999-9999 [X99999][C any text]	14.1	TN		NS	[0..2]		
telecommunication use code	14.2	ID		O	[0..1]	0201	**WPN** Used to distinguish this element between private phone numbers and email addresses.
telecommunication equipment type (ID)	14.3	ID		O	[0..1]	0202	**PH** Used to distinguish this element as referring to a telephone, internet or fax machine.
Email address	14.4	ST		C	[0..2]		IF PRD-13.3 = "Internet" THEN PRD-13.4 must be populated ELSE PRD-13.4 must = NULLEmail address for case person.
Country Code	14.5	NM		O	[0..2]		
Area/city code	14.6	NM		O	[0..1]		Not available as separet item in MD2 file
Phone number	14.7	NM		C	[0..1]		**03 53352220** IF PRD-13.3 = "Internet" THEN PRD-13.7 must = NULL ELSE PRD-13.7 must be populated
Extension	14.8	NM		O	[0..1]		
any text	14.9	ST		O	[0..1]		
Order Effective Date/Time	15	TS	26	O	[0..1]		*4.3.1.15*
Order Control Reason Code	16	CE	200	O	[0..1]		*4.3.1.16*
Entering Organisation	17	CE	60	O	[0..1]		*4.3.1.17*
Entering Device	18	CE	60	O	[0..1]		*4.3.1.18*

Name - ORC	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
Action By	19	XCN	120	O	[1..*]		**345908Dr. General Practitioner^^^^^^PRES^AUSHIC** This field contains the identity of the person who initiated the event represented by the corresponding order control code. (i.e., ordering physician). *4.3.1.19*
ID Number	19.1	ST		O	[1..*]		**345908** Prescriber Number
Family Name	19.2	ST		R	[1..*]		**Dr. General Practitioner** **Prescriber Surname** **In the MD2 file the Drs name is only available as one long string, there are no individual fields**
Last name prefix	19.2.1	ST		O	[0..*]		
Given Name	19.3	ST		O	[0..*]		**Prescriber First Name** Unavailable in MD2 file as a separate field
Middle Initial or Name	19.4	ST		O	[0..*]		Second (or other) name of the case. Unavailable in MD2 file as a separate field
suffix (for example,, JR or III)	19.5	ST		O	[0..*]		Unavailable in MD2 file as a separate field
prefix (for example,, DR)	19.6	ST		O	[0..*]	AS 4590-1999	Unavailable in MD2 file as a separate field
degree (for example,, MD)	19.7	IS		NS	[0..*]	0360	
Assigning Authority	19.8	ST		R	[1..*]		**PRES**
Namespace ID	19.8.1	ST		R	[1..*]		**PRES**
Universal ID	19.8.2	ST		O	[0..*]		
Universal ID Type	19.8.3	IS		O	[0..*]		
Assigning Facility	19.9	ST		R	[1..*]		**AUSHIC**
Namespace ID	19.9.1	ST		R	[1..*]		**AUSHIC**
Universal ID	19.9	ST		O	[0..*]		

Name - ORC	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
	.2						
Universal ID Type	19.9 .3	IS		O	[0..*]		
Advanced Beneficiary Notice	20	CE	40	O	[0..1]		*4.3.1.20*
Ordering Facility Name	21	XON	60	O	[0..*]		*4.4.1.44*
Organisation Name	21.1	ST		O	[0..*]		
Organisation Name Type Code	21.2	IS		O	[0..*]		
ID Number	21.3	NM		O	[0..*]		
Check Digit	21.4	NM		O	[0..*]		
Check Digit Schema	21.5	ID		O	[0..*]		
Assigning Authority	21.6	HD		O	[0.*]		
Namespace ID	21.6 .1	IS		O	[0..*]		
Universal ID	21.6 .2	ST		O	[0..*]		
Universal ID Type	21.6 .3	ID		O	[0..*]		
Identifier Type Code	21.7	IS		O	[0.*]		
Assigning Facility	21.8	HD		O	[0.*]		
Namespace ID	21.8 .1	IS		O	[0..*]		
Universal ID	21.8 .2	ST		O	[0..*]		
Universal ID Type	21.8 .3	ID		O	[0..*]		
Name Representation Code	21.9	ID		O	[0.*]		
Ordering Facility Address	22	XAD	106	O	[0..*]		This field is the address of the facility placing the order
street address	22.1	ST		O	[0..*]		
street or mailing address	22.1 .1	ST		O	[0..*]		
street name	22.1 .2	ST		O	[0..*]		
dwelling number	22.1 .3	ST		O	[0..*]		
other designation	22.2	ST		O	[0..*]		

Name - ORC	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
city	22.3	ST		O	[0..*]	AS 5017	
state or province	22.4	ST		O	[0..*]	AS 5017	
zip or postal code	22.5	ST		O	[0..*]	AS 5017	
country	22.6	ID		O	[0..*]	0399	
address type	22.7	ID		O	[0..*]	0190	
other geographic designation	22.8	ST		O	[0..*]		
county/parish code	22.9	IS		NS	[0..*]	0289	
census tract	22.10	IS		NS	[0..*]	0288	
address representation code	22.11	ID		NS	[0..*]	0465	
Ordering Facility Phone number	23	XTN	48	O	[0..*]		**^WPN^PH^^^^0353352220** Telephone number of the facility placing the order. *4.3.1.14*
[(999)] 999-9999 [X99999][C any text]	23.1	TN		NS	[0..*]		
telecommunication use code	23.2	ID		O	[0..1]	0201	**WPN** Used to distinguish this element between private phone numbers and email addresses.
telecommunication equipment type (ID)	23.3	ID		O	[0..1]	0202	**PH** Used to distinguish this element as referring to a telephone, internet or fax machine.
Email address	23.4	ST		C	[0..*]		IF PRD-13.3 = "Internet" THEN PRD-13.4 must be populated ELSE PRD-13.4 must = NULLEmail address for case person.
Country Code	23.5	NM		O	[0..*]		
Area/city code	23.6	NM		O	[0..1]		**03**
Phone number	23.7	NM		C	[0..1]		**53352220** IF PRD-13.3 = "Internet" THEN PRD-13.7 must = NULL ELSE PRD-13.7 must be populated
Extension	23.8	NM		O	[0..*]		
any text	23.9	ST		O	[0..*]		
Ordering Provider Address	24	XAD	106	O	[0..*]		**13, Pill Street,^^Melbourne^^3000^C**

Name - ORC	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
							This field is the Address of the prescriber placing the order
street address (SAD)	24.1	SAD		R	[1..1]		
street or mailing address	24.1.1	ST		R	[1..1]		**13, Pill Street,** Address Line 1
street name	24.1.2	ST		NS	[0..0]		
dwelling number	24.1.3	ST		NS	[0..0]		
other designation	24.2	ST		O	[0..1]		Address Line2 Not available in MD script file
city	24.3	ST		O	[0..1]	AS 5017	**Melbourne** Name of suburb, town, etc.
state or province	24.4	ST		O	[0..1]	AS 5017	Not available in MD script file
zip or postal code	24.5	ST		O	[0..1]	AS 5017	**3000**
country	24.6	ID		O	[0..1]	0399	Not available in MD script file
address type	24.7	ID		R	[1..1]	0190	**C** In this implementation the address type is fixed as “C” – current address.
other geographic designation	24.8	ST		O	[0..1]		Address Line 3
county/parish code	24.9	IS		NS	[0..0]	0289	
census tract	24.10	IS		NS	[0..0]	0288	
address representation code	24.11	ID		NS	[0..0]	0465	

Name - RXO	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
4.2.4 RXO–Pharmacy Prescription Order							**RXO|GW^Imigran^Manufacturer^7805^Sumatriptan Succinate^MD2|1||MDUnits^50mg^MD2|^^^Tablet^Tablet ^TGAAAN|^1 tablet swallowed whole, max does 6 tablets/24 hours|^1 tablet swallowed whole, max does 6 tablets/24 hours||G||2|MD^50mg^MD2|5|** This is the "master" pharmacy/treatment order segment. It contains order data not specific to components or additives. Unlike the OBR, it does not contain status fields or other data that are results-only. ***AS4700.3-2002***
Requested Give Code	1	CE	100	R	[1..1]		This field identifies the medical substance or product ordered to be given to the patient It is required by HL7. *4.8.2.1*
Identifier (code number)	1.1	ST		R	[1..1]		**GW**
Text (trade name)	1.2	ST		O	[0..1]		**Imigran**
name of coding system	1.3	ST		R	[1..1]		**Manufacturer**
alternate identifier (generic code)	1.4	ST		R	[1..1]		**7805**
alternate text (generic name)	1.5	ST		O	[0..1]		**Sumatriptan Succinate**
name of alternate coding system	1.6	ST		R	[1..1]		**MD2**
Requested Give Amount (Min)	2	NM	20	R	[1..1]		**1** This field is the ordered amount. In a variable dose order, this is the minimum ordered amount. In a nonvarying dose order, this is the exact amount of the order. Not available in MD2 file default to 1. *4.8.2.2*
Requested Give Amount (Max)	3	NM	20	O	[O..1]		In a variable dose order, this is the maximum ordered amount. In a nonvarying dose order, this field is not used Not available in MD2 file *4.8.2.3*
Requested Give Units	4	CE	60	R	[1..1]		This field indicates the units for the give amount *4.8.2.4*

Name - RXO	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
Identifier	4.1	ST		R	[1..1]		**MDUnits**
Text	4.2	ST		O	[0..1]		**50mg**
name of coding system	4.3	ST		R	[1..1]		**MD2**
alternate identifier (generic code)	4.4	ST		O	[0..1]		
alternate text (generic name)	4.5	ST		O	[0..1]		
name of alternate coding system	4.6	ST		O	[0..1]		
Requested Dosage Form	5	CE	60	O	[0..1]		**^^^Tablet^Tablet^TGAAAN** This field indicates the manner in which the medication is aggregated for dispensing, e.g., tablets, capsules, suppositories. *4.8.2.5*
Identifier (Trade name Dose Form)	5.1	ST		O	[0..1]		
Text (Trade name Dose Form)	5.2	ST		O	[0..1]		
name of coding system (Trade Name)	5.3	ST		O	[O..1]		
alternate identifier (TGA Approved dosage form name)	5.4	ST		O	[0..1]		**Tablet** The TGA AAN standard for dosage form is available in the MD2 file
alternate text (TGA Approved dosage form name)	5.5	ST		O	[0..1]		**Tablet** The TGA AAN standard for dosage form is available in the MD2 file
name of alternate coding system	5.6	ST		O	[0..1]		**TGAAAN**
Provider Pharmacy Instructions	6	CE	200	O	[0..*]		**^1 tablet swallowed whole, max does 6 tablets/24 hours** This field identifies the ordering provider's instructions to the pharmacy or the non-pharmacy treatment provider (e.g., respiratory therapy). If coded, a user-defined table must be used. If transmitted as a free text field, place a null in the first component and the text in the second, e.g., |^this is a free text treatment instruction. *4.8.2.6*
Identifier	6.1	ST		O	[0..*]		**Null**
Text	6.2	ST		O	[0..*]		**1 tablet swallowed whole, max does 6 tablets/24 hours**
name of coding system	6.3	ST		O	[0..*]		

Name - RXO	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
alternate identifier	6.4	ST		O	[0..*]		
alternate text	6.5	ST		O	[0..*]		
name of alternate coding system	6.6	ST		O	[0..*]		
Provider Administration Instructions	7	CE	200	O	[0..*]		**^1 tablet swallowed whole, max does 6 tablets/24 hours** This field identifies the ordering provider's instructions to the patient or to the provider administering the drug or treatment. If coded, a user-defined table must be used. If transmitted as a free text field, place a null in the first component and the text in the second, e.g., |^this is a free text administration instruction|. . *4.8.2.7*
Identifier	7.1	ST		O	[0..*]		**Null**
Text	7.2	ST		O	[0..*]		**1 tablet swallowed whole, max does 6 tablets/24 hours**
name of coding system	7.3	ST		O	[0..*]		
alternate identifier	7.4	ST		O	[0..*]		
alternate text	7.5	ST		O	[0..*]		
name of alternate coding system	7.6	ST		O	[0..*]		
Deliver to Location	8	CM	200	O	[0..1]		The first components, modeled after the PL data type, contain the inpatient or outpatient location to which the pharmacy provider or treatment supplier is to deliver the drug or treatment device (if applicable)
Point of Care	8.1	IS		O	[0..1]		
Room	8.2	IS		O	[0..1]		
Bed	8.3	IS		O	[0..1]		
Facility	8.4	HD		O	[0..1]		
Namespace ID	8.4.1	ST		O	[0..1]		
Universal ID	8.4.2	ST		O	[0..1]		
Universal ID Type	8.4.3	IS		O	[0..1]		
Location Status	8.5	IS		O	[0..1]		

Name - RXO	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
Patient Location Type	8.6	IS		O	[0..1]		
Building	8.7	IS		O	[0..1]		
Floor	8.8	IS		O	[0..1]		
Address	8.9	IS		O	[0..1]		
street or mailing address	8.9.1	ST		O	[0..1]		Address Line 1
Other designation	8.9.2	ST		O	[0..1]		Address Line 2
City	8.9.3	ST		O	[0..1]		Name of suburb, town, etc.
state or province	8.9.4	ST		O	[0..1]		
zip or postal code	8.9.5	ST		O	[0..1]		
country	8.9.6	ST		O	[0..1]		
address type	8.9.7	ST		O	[0..1]		
Other geographic designation	8.9.8	ST		O	[0..1]		
Allow substitutions	9	ID	1	R	[1..1]	0161	**G** Default is “G” - do not leave blank, optionality changed to “R” *4.8.2.9*
Requested Dispense Code	10	CE	100	O	[O..1]		This field indicates what is to be/was dispensed; it is equivalent to OBR-4-universal service ID in function. It may be present in the order or not, depending on the application. If not present, and values are given for RXO-11-requested dispense amount and RXO-12-requested dispense units, the RXO-1-requested give code is assumed. If the requested dispense code does not include the dosage form, use RXO-5-requested dosage form *4.8.2.10*
Requested Dispense Amount	11	NM	20	O	[O..1]		**2** This field specifies the amount to be dispensed *4.8.2.11*
Requested Dispense Units	12	CE	60	O	[O..1]		**MD^50mg^MD2** This field identifies the units for the dispense amount. This must be in simple units

Name - RXO	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
							that reflect the actual quantity of the substance to be dispensed. It does not include compound units *4.8.2.12*
Identifier	12.1	ST		O	[0..1]		**MD**
Text	12.2	ST		O	[0..1]		**50mg**
name of coding system	12.3	ST		O	[0..1]		**MD2**
Number of Refills	13	NM	3	O	[0..1]		**5** This field defines the number of times the requested dispense amount can be given to the patient, subject to local regulation *4.8.2.13*
Ordering Providers DEA Number	14	XCN	60	C	[0..*]		This field identifies the providers controlled substance number, if required by site. It is defined as conditional because it is required when the substance being requested is a controlled substance (e.g., a narcotic). Not available in the MD2 file *4.8.2.14*
ID Number	14.1	ST		O	[O..*]		DEA Number
Family Name	14.2	ST		O	[O..*]		**Prescriber Surname** **In the MD2 file the Drs name is only available as one long string, there are no individual fields**
Last name prefix	14.2.1	ST		O	[0..*]		
Given Name	14.3	ST		O	[0..*]		**Prescriber First Name** Unavailable in MD2 file as a separate field
Middle Initial or Name	14.4	ST		O	[0..*]		Second (or other) name of the case. Unavailable in MD2 file as a separate field
suffix (for example,, JR or III)	14.5	ST		O	[0..*]		Unavailable in MD2 file as a separate field
prefix (for example,, DR)	14.6	ST		O	[0..*]	AS 4590-1999	Unavailable in MD2 file as a separate field
degree (for example,, MD)	14.7	IS		O	[0..*]	0360	
Source Table	14.8	IS		O	[0..*]		

Name - RXO	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
Assigning Authority	14.9	ST		O	[0..*]		
Namespace ID	14.9.1	ST		O	[0..*]		
Universal ID	14.9.2	ST		O	[0..*]		
Universal ID Type	14.9.3	IS		O	[0..*]		
Name Type Code	14.10	ID		O	[0..*]		
Identifier Check Digit	14.11	ST		O	[0..*]		
Check Digit Schema	14.12	ID		O	[0..*]		
Identifier Type Code	14.13	IS		O	[0..*]		
Assigning Faclity	14.14	ST		O	[0..*]		
Namespace ID	14.14.1	ST		O	[0..*]		
Universal ID	14.14.2	ST		O	[0..*]		
Universal ID Type	14.14.3	IS		O	[0..*]		
Name Representation Code	14.15	ID		O	[0..*]		
Pharmacist Verifier ID	15	XCN	60	C	[0..*]		This field is the provider ID of the pharmacist/treatment substance supplier verifier. Use if required by the pharmacy or treatment application or site on orders (or some subgroup of orders), in addition to ORC-11-verified by Not available in the MD2 file *Example:* *The site requires a "verified by" provider (such as a nurse) and a "verifying pharmacist/treatment supplier" on the order. In this case the first field, ORC-11-verified by, is already present; but the second field, RXO-15-pharmacist/treatment supplier's verifier ID, is needed.*

Name - RXO	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
							4.8.2.14
ID Number	15.1	ST		O	[O..*]		
Family Name	15.2	ST		O	[O..*]		
Last name prefix	15.2.1	ST		O	[0..*]		
Given Name	15.3	ST		O	[0..*]		
Middle Initial or Name	15.4	ST		O	[0..*]		.
suffix (for example,, JR or III)	15.5	ST		O	[0..*]		
prefix (for example,, DR)	15.6	ST		O	[0..*]	AS 4590-1999	
degree (for example,, MD)	15.7	IS		O	[0..*]	0360	
Source Table	15.8	IS		O	[0..*]		
Assigning Authority	15.9	ST		O	[0..*]		
Namespace ID	15.9.1	ST		O	[0..*]		
Universal ID	15.9.2	ST		O	[0..*]		
Universal ID Type	15.9.3	IS		O	[0..*]		
Name Type Code	15.10	ID		O	[0..*]		
Identifier Check Digit	15.11	ST		O	[0..*]		
Check Digit Schema	15.12	ID		O	[0..*]		
Identifier Type Code	15.13	IS		O	[0..*]		
Assigning Faclity	15.14	ST		O	[0..*]		
Namespace ID	15.14.1	ST		O	[0..*]		
Universal ID	15.14.2	ST		O	[0..*]		

Name - RXO	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
Universal ID Type	15.14.3	IS		O	[0..*]		
Name Representation Code	15.15	ID		O	[0..*]		
Needs Human Review	16	ID	1	O	[0..1]	0136	Not available in MD2 file *4.8.2.16*
Requested give per (time unit)	17	ST	20	C	[0..1]		This field identifies the time unit to use to calculate the rate at which the pharmaceutical is to be administered. This field is defined as conditional because it is required when the ordered substance is to be administered continuously at a prescribed rate (e.g., certain IVs). For example, if the “give amount/units” are 300 ml and the “give per” time unit is H1, the rate is 300ml/hr and the duration of this dose is 1 hour. Thus the give amount and give per time unit define the duration of the service. Not available in MD2 file *4.8.2.17*
Requested give strength	18	NM	20	O	[0..1]		Use this field when *RXO-1-requested give code* does not specify the strength. This is the numeric part of the strength, used in combination with Requested Strength Unit. *4.8.2.18*
Requested give strength units	19	CE	60	O	[0..1]		Use when both *RXO-1-requested give* code and *RXO-10-requested dispense code* do not specify the strength. This is the unit of the strength, used in combination with *RXO-18-requested give strength*. Note: These units can be a “compound quantity;” i.e., the units may express a quantity per unit of time. For example, micrograms per hour (❍g/h) is an acceptable value. These compound units are contained in the ISO+ table. See Chapter 7 for full definition of ISO+ units. *4.8.2.19*
Identifier	19.1	ST		O	[0..1]		
Text	19.2	ST		O	[0..1]		
name of coding system	19.3	ST		O	[0..1]		
alternate identifier	19.4	ST		O	[0..1]		
alternate text	19.5	ST		O	[0..1]		
name of alternate coding system	19.6	ST		O	[0..1]		

Name - RXO	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
Indication	20	CE	200	O	[0..*]		This field identifies the condition or problem for which the drug/treatment was prescribed. May repeat if multiple indications are relevant. *4.8.2.20*
Identifier	20.1	ST		O	[0..1]		
Text	20.2	ST		O	[0..1]		
name of coding system	20.3	ST		O	[0..1]		
alternate identifier	20.4	ST		O	[0..1]		
alternate text	20.5	ST		O	[0..1]		
name of alternate coding system	20.6	ST		O	[0..1]		
Requested give rate amount	21	ST	6	O	[0..1]		This field contains the rate at which to administer treatment. *4.8.2.21*
Requested give rate units	22	CE	60	O	[0..1]		This field contains the units in which *RXO-21-requested give rate amount* is denominated *4.8.2.22*
Identifier	22.1	ST		O	[0..1]		
Text	22.2	ST		O	[0..1]		
name of coding system	22.3	ST		O	[0..1]		
alternate identifier	22.4	ST		O	[0..1]		
alternate text	22.5	ST		O	[0..1]		
name of alternate coding system	22.6	ST		O	[0..1]		
Total Daily Dose	23	CQ	10	O	[0..1]		This field contains the total daily dose for this particular pharmaceutical as expressed in terms of actual dispense units *4.8.2.23*
Quantity	23.1	NM		O	[0..1]		
Number of Units	23.2	CE		O	[0..1]		
Identifier	23.2.1	ST		O	[0..1]		
Text	23.2.2	ST		O	[0..1]		
name of coding system	23.2.3	ST		O	[0..1]		

Name - NTE	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
4.2.5 NTE–Notes and Comments segment							**|P|00045933~ Migraine attacks in patients receiving or who have failed a trial of prophylactic medication and where attacks in the past have usually failed to respond to oral Rx with ergotamine and other appropriate agents, or in whom these agents are contraindicated~N~Y~9300670154234|** **The NTE segment is a common format for sending notes and comments.** **In this implementation it is used for sending the Authority Prescription data and other miscellaneous prescription data for which there has been no identifiable field.** **The segment is repeatable; one segment should be created for the miscellaneous data and one for the authority data if applicable.** **Only the authority data is shown in the example** ***AS4700.3-2002***
Set ID	1	SI	4	O	[0..1]		This field may be used where multiple NTE segments are included in a message. Their numbering must be defined in the application definition. *2.24.15.1*
Source of Comment	2	ID	8	O	[O..1]	0105	**P** This field is used when source of comment must be identified. Values are: L – Ancillary (filler) department is source of comment. P – Orderer (placer) is source of comment O – Other system is source of comment. *2.24.15.2*
Comment	3	FT	64K	O	[0..*]		**00045933~ Migraine attacks in patients receiving or who have failed a trial of prophylactic medication and where attacks in the past have usually failed to respond to oral Rx with ergotamine and other appropriate agents, or in whom these agents are contraindicated~N~Y~9300670154234** This field contains the comment contained in the segment. *2.24.15.3*

Name - RXR	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
4.2.6 RXR - pharmacy/treatment route segment							**RXR|OTH^Other/Miscellaneous^HL70162|** **The Pharmacy/Treatment Route segment contains the alternative combination of route, site, administration device, and administration method that are prescribed. The pharmacy, treatment staff and/or nursing staff has a choice between the routes based on either their professional judgment or administration instructions provided by the physician.** ***AS4700.3-2002***
Route	1	CE	60	R	[1..1]	0162	**OTH^Other/Miscellaneous^HL70162** This field is the route of administration This data is not available in the MD2 file *4.8.3.1*
identifier	1.1	ST		R	[1..1]		**OTH**
text	1.2	ST		O	[0..1]		**Other/Miscellaneous**
name of coding system	1.3	ST		R	[1..1]		**HL70162**
alternate identifier	1.4	ST		O	[0..1]		
alternate text	1.5	ST		O	[0..1]		
name of alternate coding system	1.6	ST		O	[0..1]		
Site	2	CE	60	O	[0..1]	0163	This field contains the site of the administration route This data is not available in the MD2 file *4.8.3.2*
identifier	2.1	ST		O	[0..1]		
text	2.2	ST		O	[0..1]		
name of coding system	2.3	ST		O	[0..1]		
alternate identifier	2.4	ST		O	[0..1]		
alternate text	2.5	ST		O	[0..1]		
name of alternate coding system	2.6	ST		O	[0..1]		

Name - RXR	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
Administrative Device	3	CE	60	O	[0..1]	0164	This field contains the mechanical device used to aid in the administration of the drug or other treatment. This data is not available in the MD2 file *4.8.3.3*
identifier	3.1	ST		O	[0..1]		
text	3.2	ST		O	[0..1]		
name of coding system	3.3	ST		O	[0..1]		
alternate identifier	3.4	ST		O	[0..1]		
alternate text	3.5	ST		O	[0..1]		
name of alternate coding system	3.6	ST		O	[0..1]		
Administrative Method	4	CE	60	O	[0..1]	0165	This field identifies the specific method requested for the administration of the drug or treatment to the patient. This data is not available in the MD2 file *4.8.3.4*
identifier	4.1	ST		O	[0..1]		
text	4.2	ST		O	[0..1]		
name of coding system	4.3	ST		O	[0..1]		
alternate identifier	4.4	ST		O	[0..1]		
alternate text	4.5	ST		O	[0..1]		
name of alternate coding system	4.6	ST		O	[0..1]		
Routing Instruction	5	CE	60	O	[0..1]		This field provides instruction on administration routing, especially if cases where more than one route of administration is possible. A typical case would be designating which IV line should be used when more than one IV line is a possible route for injection. This data is not available in the MD2 file *4.8.3.5*
identifier	5.1	ST		O	[0..1]		
text	5.2	ST		O	[0..1]		
name of coding system	5.3	ST		O	[0..1]		
alternate identifier	5.4	ST		O	[0..1]		
alternate text	5.5	ST		O	[0..1]		
name of alternate coding system	5.6	ST		O	[0..1]		

Name - OBX	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
4.2.7 OBX–Observation Result							**OBX||ED|PP^Pharmacy Prescription^HL70281|SI^Signed^HL70281|^TEXT^HTML^BASE64^Ytyu3StRE7y8YR9utS0d098Iju45fya3V4BC23Xo68Ytp90Ki78Fu45yyK23Ga23Ft5i7F7K9Fuyr4598568iyr9iuKF3yKrGtKF98t0Kiu343rDJweey65i0Fgu3J2y2rDr6KYU8O7t8rt43Rie2r2TI54te8r9T78It0e0rt6|||||F|||20061004135954.3784+1000** **Observation/Result -** In this implementation the Prescription is also to be "encapsulated" in a single OBX segment. The prescription will be constructed from the atomised data in the form of an HTML page which is then base64 encoded to remove all non-printing ASCII (and HL7 reserved characters) and appears as an "Encapsulated Data" field in the OBX. ***AS4700.2-2004***
Set ID - OBX	1	SI	4	O	[0..1]		**1** Sequential number of the OBX segment under an OBR within the message. Start with "1", next is "2", etcetera *7.3.2.1*
Value Type	2	ID	3	R	[1..1]	0125	**ED** This element is used to indicate the HL7 data type of the variable OBX.5 element. In this implementation, only ED (encapsulated data) types are used.
Observation Identifier	3	CE	250	R	[1..1]		**PP^Pharmacy Prescription^HL70281** This element is used to describe the "category" of information being transmitted by this OBX. In this implementation, this information is somewhat redundant (although still required by HL7 for correct form). This will hold the same value as RF1-3. *7.3.2.3*
identifier	3.1	ST		R	[1..1]		**PP** This component indicates the type of referral being transmitted.
text	3.2	ST		O	[0..1]		**Pharmacy Prescription**
name of coding system	3.3	IS		R	[1..1]		**HL70281** Fixed value in this implementation.
alternate identifier	3.4	ST		O	[0..1]		

Name - OBX	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
alternate text	3.5	ST		O	[0..1]		
name of alternate coding system	3.6	IS		O	[0..1]	0396	
Observation Sub-Id	4	ST	20	O	[0..1]		1 If the OBX segments under a single OBR are grouped, use the sub-id to indicate these logical groupings. *7.3.2.4*
Observation Value	5	*		R	[1..1]		**^TEXT^HTML^BASE64^Ytyu3StRE7y8YR9utS0d098Iju45fya3V4BC23Xo68Ytp90Ki78Fu45yyK23Ga23Ft5i7F7K9Fuyr4598568iyr9iuKF3yKrGtKF98t0Kiu343rDJweey65i0Fgu3J2y2rDr6KYU8O7t8rt43Rie2r2TI54te8r9T78It0e0rt6** In this implementation the arbitrary length limit is 64K is agreed by HL7 Inc to be impractical. Sites involved in this implementation have agreed not to set an upper limit for this field, however, systems should not simply "truncate" this field to fit it into their system. Where a field is above the practical system size limit, this message should be logged in an appropriate log and/or an operator should be alerted for appropriate action. The components described for this element are applicable for the ED data type only. *7.3.2.5*
Type of Data	5.2	ID		R	[1..1]	0191	**TEXT** In this implementation the referral will always be encoded as displayable text
Data subtype	5.3	ID		R	[1..1]	0291	**PDF** This field indicates the original form of the referral, being RTF, PDF or HTML.
Encoding	5.4	ID		R	[1..1]	0299	**BASE64** To avoid unnecessary complication in processing, the referral will always be Base64 encoded to remove non-printing ASCII and HL7 reserved characters. For convenience and explanation of Base64 encoding is provided as an appendix – see Error! Reference source not found.
Data	5.5	ST		R	[1..1]		**Ytyu3StRE7y8YR9utS0d098Iju45fya3V4BC23Xo68Ytp90Ki78Fu45yyK23Ga23Ft5i7F7K9Fuyr4598568iyr9iuKF3yKrGtKF98t0Kiu343rDJweey65i0Fgu3J2y2rDr6KYU8O7t8rt43Rie2r2TI54te8r9T78It0e0rt6** This field is used to hold the encoded data representing the referral.
Units	5.6	CE	250	C	[0..1]		IF OBX-2 = NM THEN OBX-6 must be populated ELSE OBX-6 may be populated. The unit of measurement for the result of the test. In conjunction with OBX-5 and

Name - OBX	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
							OBX-8, this element identifies the quantative result of the test. *13.4.9.13*
identifier	5.6.1	ST		O	[0..1]		
text	5.6.2	ST		O	[0..1]		
name of coding system	5.6.3	IS		O	[0..1]	0396	
alternate identifier	5.6.4	ST		O	[0..1]		
alternate text	5.6.5	ST		O	[0..1]		
name of alternate coding system	5.6.6	IS		O	[0..1]	0396	
References Range	7	ST	60	O	[0..1]		*7.3.2.7*
Abnormal Flags	8	IS	5	O	[0..1]	0078	In conjunction with OBX-5 and OBX-6, this element identifies the quantative result of the test.
Probability	9	NM	5	O	[0..1]		*7.3.2.9*
Nature of Abnormal Test	10	ID	2	O	[0..1]	0080	*7.3.2.10*
Observation Result Status	11	ID	1	R	[1..1]	0085	**F** This field is used to indicate the status of the data. In this implementation use F to indicate that this is a final document that will not be corrected. *7.3.2.11*
Date Last Observation Normal Value	12	TS	26	O	[0..1]		*7.3.2.12*
User Defined Access Checks	13	ST	20	O	[0..1]		*7.3.2.13*
Date/Time of the Observation	14	TS	26	R	[1..1]		*7.3.2.14*
Date/Time	14.1	NM		R	[1..1]		**20061004135954.3784+1000** The date the referral was created. This item should be sent with the maximum precision possible. The time zone (ZZZZ) should be sent to avoid unexpected surprises. YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZ Z]
degree of precision	14.2	ST		O	[0..1]		
Producer's ID	15	CE	250	O	[0..1]		*7.3.2.15*
Responsible Observer	16	XCN	250	O	[0..1]		*7.3.2.16*
Observation Method	17	CE	250	O	[0..1]		*7.3.2.17*

Name - MSA	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
4.2.8 MSA							**MSA|AE|22F4A52C5A|Please check the value you are using to indicate Gender|||103^Table Value not found^HL70357** **Message Acknowledgement -** This segment is used to contain the acknowledgement information relating to the original message from the feeder. ***AS4700.1-2001***
Acknowledgment Code	1	ID	2	R	[1..1]	0008	**AE** This field contains an acknowledgment code, indicating whether the original message has been accepted, rejected on in error. ***2.16.8.1***
Message Control ID	2	ST	20	R	[1..1]		**22F4A52C5A** This field contains the message control ID of the message sent by the sending system. It allows the sending system to associate this response with the message for which it is intended. ***2.16.9.10***
Text Message	3	ST	80	O	[0..1]		**Please check the value you are using to indicate Gender** This optional field further describes an error condition. This text may be printed in error logs or presented to an end user. ***2.16.8.3***
Expected Sequence Number	4	NM	15	NS	[0..0]		***2.16.8.4***
Delayed Acknowledgment Type	5	ID	1	NS	[0..0]	0102	***2.16.8.5***
Error Condition	6	CE	250	O	[0..1]		This field allows the acknowledging system to use a defined error code to further specify AR or AE type acknowledgments. The ERR segment allows for further, richer descriptions of the erroneous conditions. ***2.16.8.6***
identifier	1	ST		R	[1..1]	0357	**103**
text	2	ST		O	[0..1]		**Table Value not found**
name of coding system	3	IS		R	[1..1]	0396	**HL70357**
alternate identifier	4	ST		NS	[0..0]		
alternate text	5	ST		NS	[0..0]		
name of alternate coding system	6	IS		NS	[0..0]	0396	

Name - MSA	Sequence	Data Type	Length	Usage	Cardinality	Table	Example Value Implementation Note *XRef (HL7 Chapter)*
identifier	1	ST		R	[1..1]	0357	101
text	2	ST		O	[0..1]		Required Field Missing
name of coding system	3	IS		R	[1..1]	0396	HL70357
Alternate identifier	4	ST		NS	[0..0]		
Alternate text	5	ST		NS	[0..0]		
name of alternate coding system	6	IS		NS	[0..0]	0396	

Table 9 - Segment and Field Level Profiles

5 Value Reference Tables

5.1 How to Read the Tables

5.1.1 Column Headings

5.1.1.1 Code

This column indicates the actual code value, which will appear in the HL7 message where a coded value is needed. (eg. In component 1 of a CE data type)

5.1.1.2 Description

Each code value is described using verbose text.

5.1.1.3 Source

Values provided by the HL7 standard will be listed as “HL7”. Values defined by the Northern Territory Health Connect project will be listed as “NTHC”. Values defined by this implementation will be listed as “TEDGP”.

5.1.2 Section Headings

5.1.2.1 Table ID

Table ID’s consisting of a numerical 4-digit code are referenced from the HL7 standard. Table ID’s consisting of a 2-letter code are defined in this implementation only.

5.1.2.2 Name

Each table of values is named according to the set of values contained within.

5.1.2.3 Table Type

Table Types “HL7” are defined within the HL7 standard and may not be altered by this implementation. Additional codes may be included to extend the codes defined by HL7.

Table Types “USER” are allocated ID’s within the HL7 standard, however may not always contain pre-existing values. In this implementation, values suggested by HL7 will be used and additional values will be added where appropriate.

Table Types “NTHC” are defined for the Northern Territory Health Connect project.

Table Types “TEDGP” are defined for this implementation only.

5.2 Coding System

Where these tables are used as a “coding system” in a field or set of field, they may be referenced as follows.

Table Types “USER” and “HL7” are allocated numbers within the HL7 Standard and therefore may be referenced as “HL7nnnn” where “nnnn” is the appropriate 4-digit Table ID.

Table Types “NTHC” are defined for the Northern Territory Health Connect project.

Table Types “TEDGP” are defined for this document only and may be referenced as “NTHC5nnn” where 5nnn is the appropriate 4-digit Table ID.

5.3 Table Listings

able ID: 0003	Name: Event Type			Table Type: HL7
rder	Code	Description	Source	Sub-Set References
	O01	ORM – General Order Message	HL7	

able ID: 0008	Name: Acknowledgment code			Table Type: HL7
rder	Code	Description	Source	Sub-Set References
	AA	Original mode: Application Accept – Enhanced mode: Application acknowledgment: Accept	HL7	1
	AE	Original mode: Application Error - Enhanced mode: Application acknowledgment: Error	HL7	1
	AR	Original mode: Application Reject - Enhanced mode: Application acknowledgment: Reject	HL7	1
	CA	Enhanced mode: Accept acknowledgment: Commit Accept	HL7	
	CE	Enhanced mode: Accept acknowledgment: Commit Error	HL7	
	CR	Enhanced mode: Accept acknowledgment: Commit Reject	HL7	

able ID: 0076	Name: Message type			Table Type: HL7
rder	Code	Description	Source	Sub-Set References
	ACK	General acknowledgment message	HL7	1
	ORM	– General Order Message	HL7	1

able ID: 0103	Name: Processing ID			Table Type: HL7
rder	Code	Description	Source	Sub-Set References
	D	Debugging	HL7	
	P	Production	HL7	
	T	Training	HL7	

able ID: 0104	Name: Version ID			Table Type: HL7
rder	Code	Description	Source	Sub-Set References
	2.3.1	Release 2.3.1	HL7	1
		<insert any new required values from here>		

able ID: 0190	Name: Address type			Table Type: HL7
rder	Code	Description	Source	Sub-Set References
	C	Current Or Temporary	HL7	1

able ID: 0200	Name: Name type			Table Type: HL7
rder	Code	Description	Source	Sub-Set References
	A	Alias Name	HL7	1
	L	Legal Name	HL7	
	D	Display Name	HL7	
	M	Maiden Name	HL7	
	C	Adopted Name	HL7	
	B	Name at Birth	HL7	
	P	Name of Partner/Spouse	HL7	
	S	Coded Pseudo-Name to ensure anonymity	HL7	
	T	Tribal/Community Name	HL7	1
)	U	Unspecified	HL7	

able ID: 0203	Name: Identifier type			Table Type: USER
rder	Code	Description	Source	Sub-Set References

	MR	Medical Record Number	HL7	1
	MC	Medicare Number	HL7	1
	PRN	Provider Number	HL7	1
	PEN	***Pension Number***	***P2PETP***	1
	SNN	***Safety Net Number***	***P2PETP***	

able ID: 0299	Name: Encoding			Table Type: HL7
rder	Code	Description	Source	Sub-Set References
	BASE64	Base64 encoding as defined by MIME (Multipurpose Internet Mail Extensions) standard RFC 1521. Four consecutive ASCII characters represent three consecutive octets of binary data. Base64 utilizes a 65 character subset of US-ASCII, consisting of both the upper and lower case alphabetic characters, digits "0" through “9,” “+,” “/,” and “=.”.	HL7	1

able ID: 0300	Name: Namespace ID			Table Type: USER
rder	Code	Description	Source	Sub-Set References
	DHCS	NT Department of Health and Community Services	NTHC	1,2
	FERRET	Ferret System	NTHC	1
	PCIS	PCIS System	NTHC	1
	CCTIS	CCTIS System	NTHC	1
	REPOSITORY	NTHC Medical Event Summary Repository	NTHC	1
	JCL	JCL System	NTHC	1
	KH	Katherine Hospital	NTHC	2
	BARHC	Barunga Health Clinic	NTHC	2
	LAJHC	Lajamanu Health Clinic	NTHC	2
	YARHC	Yarralin Health Clinic	NTHC	2
	WUWHS	Wurli Wurlinjang Health Service	NTHC	2
	KALHC	Kalkarindji Health Clinic	NTHC	2
	DARHC	Darguragu Health Clinic	NTHC	2
	TICHC	Timber Creek Health Clinic	NTHC	2
	WULHC	Wulgularr Health Clinic	NTHC	2
	BULHC	Bulman Health Clinic	NTHC	2
	RDH	Royal Darwin Hospital	NTHC	2
	ASH	Alice Springs Hospital	NTHC	2
	TCH	Tennent Creek Hospital	NTHC	2
	GDH	Gove District Hospital	NTHC	2
	CARESYS	CareSys	NTHC	2
	COMMC	Communicare	NTHC	2
	BINHC	Binjari Health Clinic	NTHC	2
	CIS	Clinical Information System	TEDGP	
	PVA	***Pharmacy Viewer Application***	***P2PETP***	

able ID: 0354	Name: Message Structure			Table Type: HL7
rder	Code	Description	Source	Sub-Set References
	ORM O01	O01	HL7	1
	ORR O02	Response structure	HL7	1

able ID: 0357	Name: Message Error Status Codes			Table Type: HL7
rder	Code	Description	Source	Sub-Set References
uccess Codes				
	0	Message accepted Success. Used for systems that must always return a status code.	HL7	1
ror Codes				
	100	Segment sequence error. The message segments were not in the proper order, or required segments	HL7	1

		are missing.		
	101	Required field missing. A required field is missing from a segment	HL7	1
	102	Data type error. The field contained data of the wrong data type, e.g. an NM field contained "FOO".	HL7	1
	103	Table value not found. A field of data type ID or IS was compared against the corresponding table and no match was found.	HL7	1
ejection Codes				
	200	Unsupported message type. The Message Type is not supported.	HL7	
	201	Unsupported event code. The Event Code is not supported.	HL7	
	202	Unsupported processing id. The Processing ID is not supported.	HL7	
	203	Unsupported version id. The Version ID is not supported.	HL7	
)	204	Unknown key identifier. The ID of the patient, order, etc., was not found. Used for transactions *other than* additions, e.g. transfer of a non-existent patient.	HL7	
	205	Duplicate key identifier. The ID of the patient, order, etc., already exists. Used in response to addition transactions (Admit, New Order, etc.).	HL7	
!	206	Application record locked. The transaction could not be performed at the application storage level, e.g. database locked.	HL7	
3	207	Application internal error. A catchall for internal errors not explicitly covered by other codes.	HL7	

able ID: 0361	**Name: Sending/receiving application**			**Table Type: USER**
rder	**Code**	**Description**	**Source**	**Sub-Set References**
	FERRET	Ferret System	NTHC	1
	PCIS	PCIS System	NTHC	1
	CCTIS	CCTIS System	NTHC	1
	REPOSITORY	NTHC Medical Event Summary Repository	NTHC	1
	JCL	JCL System	NTHC	1
	CARESYS	CareSys	NTHC	1
	COMMC	Communicare	NTHC	1
	CIS	Clinical Information System	TEDGP	1
	PVA	***Pharmacy Viewer Application***	***P2PETP***	

able ID: 0363	**Name: Assigning Authority**			**Table Type: USER**
rder	**Code**	**Description**	**Source**	**Sub-Set References**
	DHCS	NT Department of Health and Community Services	NTHC	1
	FERRET	Ferret System	NTHC	1
	PCIS	PCIS System	NTHC	1
	CCTIS	CCTIS System	NTHC	1
	JCL	JCL System	NTHC	1
	CARESYS	CareSys	NTHC	1
	COMMC	Communicare	NTHC	1
	CIS	***Clinical Information System***	***P2PETP***	

Table 10 - Value Reference Tables

6 Appendix A: Medicare Number Specifications

6.1 Medicare Number Format

The Medicare card number is of the format “nnnnnnnncis”.

Where:

“nnnnnnnn” is the 8-digit card number,

“c” is the check digit,

“i” is an issue number, and

“s” is the patient line reference number on the card.

For example 24683693914 indicates card number 24683693, check digit 9, card issue 1 and patient line reference 4.

Medicare no. structure: 12345678832
Base number: 12345678
Check digit: 8
Card issue number: 3
Subnumerate: 2

6.1.1 Check Digit

The check digit is the remainder of ((1st digit * 1) + (2nd digit * 3) + (3rd digit * 7) + (4th digit * 9) + (5th digit * 1) + (6th digit * 3) + (7th digit * 7) + (8th digit * 9)) divided by 10.

6.1.2 Example

To determine the correct check digit for a card number 24683693?14
((2*1) + (4*3) + (6*7) + (8*9) + (3*1) + (6*3) + (9*7) + (3*9))/10 = 239/10 = 23 remainder 9.
Therefore, the card number is 2468369314.

6.1.3 Other Rules

In addition, the first digit of the Medicare card number should be in the range 2 to 6 inclusive, and the issue number must be greater than 0.

7 Appendix B: DVA Card Number Specifications

7.1 DVA Card Number Format

To Be Confirmed!!
A number of different DVA formats can occur.
In general the form is a 1 character state indicator, a 7 or 8 character file reference and a 1 character dependent code. The file reference can contain alphas and numbers.
Examples:
N 015068A
TX020377B
N 1002713B
The 1st character is normally a state code from the following values: N, S, W, T, V, Q.

7.1.1 Check Digit

The check digit routines for each of the formats will be supplied at a later date.

8 Appendix C: Provider Number Specifications

8.1 Number Format

The Provider Number comprises the format “nnnnnnpc”
Where:
“nnnnnn” is the 6 digit provider stem (with leading zeros where the stem is less than 6 digits)
“p” is the practice location alpha-numeric character (0-9, A-Y)
“c” is the alpha character check digit

8.2 Check Digit

The check digit is calculated as the remainder of ((1st digit * 3) + (2nd digit * 5) + (3rd digit * 8) + (4th digit * 4) + (5th digit * 2) + (6th digit) + (practice location value * 6)) divided by 11. This remainder is then expressed in alphabetic form according to the following:

Remainder	Check Digit
0	Y
1	X
2	W
3	T
4	L
5	J
6	H
7	F
8	B
9	A

When calculating the check digit, the alpha-numeric practice location is assigned a value (practice location value) according to the following series:

Practice Location	Practice Location Value
0	0
1	1
2	2
…	
9	9
A	10
B	11
C	12
…	
X	30
Y	31

9 Appendix D: Prescriber Number Specifications

9.1 Prescriber Number Format

The Prescriber number is of the format “nnnnnnc”.
Where:
“nnnnnn” is the 6-digit prescriber number, and
“c” the last digit is the check digit.
For example: 0196308.
Note that two check digit algorithms are used.

9.1.1 Check Digit - Numbers with a leading “0”

If the prescriber number is issued with a leading zero (for example 019630) then the check digit is as follows:
Checkdigit is the remainder of ((2nd digit * 5) + (3rd digit * 8) + (4th digit * 4) + (5th digit * 2) + (6th digit * 1)) divided by 11.

9.1.2 Example - Numbers with a leading “0”

To determine the correct check digit for a prescriber 019630
((1*5) + (9*8) + (6*4) + (3*2) + (0*1))/11
=107/11 = 9 remainder 8
Therefore the prescriber number is 0196308.

9.1.3 Check Digit - Numbers with a leading “1” to “9”

If the prescriber number does not have a leading zero, example 123321 then the check digit is calculated as follows:
Checkdigit is the remainder of ((1st digit * 1) + (2nd digit * 3) + (3rd digit * 7) + (4th digit * 9) + (5th digit * 1) + (6th digit * 3)) divided by 10.

9.1.4 Example - Numbers with a leading “1” to “9”

To determine the correct check digit for a prescriber 123321
((1*1) + (2*3) + (3*7) + (3*9) + (2*1) + (1*3))/10
=60/10 = 6 remainder 0
Therefore the prescriber number is 1233210.

10 Appendix E: Data Mapping Rules

10.1 Feeder System Details

HL7 Field	Data Item	Source	Data Item	Conditions
MSH-1	Field Separator	Hard Coded		
MSH-2	Encoding Characters	Hard Coded	^~\&	
MSH-3	Sending Application			
MSH-3.1	Namespace ID	Hard Coded	CIS	
MSH-4	Sending Facility			
MSH-4.1	Namespace ID	ArgusMmessenger	Extract Location Name from system details	
MSH-5	Receiving Application			
MSH-5.1	Namespace ID	Hard Coded	***PVA***	
MSH-6	Receiving Facility			
MSH-6.1	Namespace ID	Hard Coded	Stuart Park Pharmacy	
MSH-7	Date and Time of Message			
MSH-7.1	Date/Time	System	Current Date/Time	
MSH-9	Message Type			
MSH-9.1	Message Type	Hard Coded	ORM	
MSH-9.2	Trigger Event	Hard Coded	O01	
MSH-9.3	Message Structure	Hard Coded	ORM_O01	
MSH-10	Message Control ID	Code	Code Generated	
MSH-11 MSH-11.1	Processing ID Processing ID	 Hard Coded	 P	
MSH-12	Version ID			
MSH-12.1	Version ID	Hard Coded	2.3.1	
MSH-12.2	Internationalisation Code			
MSH-12.2.1	Identifier	Hard Coded	AUS	
MSH-12.2.2	Text	Hard Coded	Australia	
MSH-12.2.3	Name of Coding System	Hard Coded	ISO3166	
MSH-15	Accept Acknowledgement Type	Hard Coded	AL	
MSH-16	Application Acknowledgement Type	Hard Coded	NE	
MSH-17	Country Code	Hard Coded	AUS	

10.2 Patient Demographics

HL7 Field	Data Item	Source	Data Item	Conditions
PID-3	Patient Identifier List			Multiple occurrences are allowed therefore add an occurrence for each item in the MD2 file.
PID-3.1	ID	MD2 File	MD Patient ID – field 8 Pension Number – field 10 or field 9 Safety Net Number – field 11	***If no data items present default to ?????????? Check field 9, if present use as pension number, otherwise check field 10***

			Medicare Number – field 12	
PID-3.2	Check Digit	Code	Calculated based on Medicare rules	Only required for Medicare Number
PID-3.3	Check Digit Schema	Hard Coded	***AUSMC***	Only required for Medicare Number
PID-3.4	Assigning Authority			
PID-3.4.1	Namespace ID	Hard Coded	***AUSHIC*** - if Medicare number CIS ***AUSPEN*** ***AUSSNN***	Use AUSHIC for Medicare Number, CIS for MD Patient ID ***AUSPEN for pension*** ***AUSSNN for safety net***
PID-3.5	Identifier Type Code	Hard Coded	See conditions	MR – if MD2 patient ID MC – if Medicare number PEN – if pension number SNN – if safety net number
PID-3.6	Assigning Facility			
PID-3.6.1	Namespace ID	ArgusMessenger	Extract Location Name from system details	
PID-5	Patient Name	MD2 File		Multiple occurrences are allowed but only one occurrence is present within the MD2 file record.
PID-5.1	Family Name	MD2 File	Patient Surname – field 2	
PID-5.2	Given Name	MD2 File	Patient Given Name – field 3	
PID-5.5	Prefix	MD2 File	Patient Title – field 4	
PID-5.7	Name Type Code	Hard Coded	L	
PID-11	Patient Address	MD2 File		Multiple occurrences are allowed but only one occurrence is present within the MD2 file record.
PID-11.1	Street Address	MD2 File	Patient Address Line 1 – field 5	
PID-11.3	City	MD2 File	Patient Address Line 2 – field 6	
PID-11.5	Post Code	MD2 File	Patient Post Code – field 7	
PID-11.7	Address Type	Hard Coded	C	

10.3 Common Order Details

HL7 Field	Data Item	Source	Data Item	Conditions
ORC-1	Order Control	Hard Coded	NW	
ORC-2	Placer Order Number			
ORC-2.1	ID	MD2 File	Script Number – field 21	
ORC-2.2	Namespace ID	Hard Coded	***CIS***	
ORC-4	Placer Order Number			***If there are multiple items for the***

				same prescription number, place the prescription number in this data item
ORC-4.1	ID	MD2 File	Script Number – field 21	
ORC-4.2	Namespace ID	Hard Coded	***CIS***	
ORC-9	Date / Time of Transaction	MD2 File	Script Date – field 20	MD2 file contains only a date make the time stamp zeros i.e. yyyymmdd000000.0000+1000 Date format in file is dd/mm/yyyy and will need to be converted.
ORC-12	Ordering Provider	MD2 File		Multiple occurrences are allowed; within the MD2 file record there is a prescriber and provider number. If both are present create 2 occurrences of the field.
ORC-12.1	ID Number	MD2 File	Doctors Prescriber Number – field 17 Doctors Provider Number – field 18	***If no prescriber number present error***
ORC-12.2	Family Name	MD2 File	Doctors Name – field 13	***The doctors name appears in full in only 1 field therefore place the whole name in the Family Name field and leave the others***
ORC-12.8	Assigning Authority			
ORC-12.8.1	Namespace ID	Hard Coded	***PRES*** ***PROV***	***Use PRES for Prescriber Number*** ***User PROV for Provider Number***
ORC-12.9	Assigning Facility			
ORC-12.9.1	Namespace ID	Hard Coded	***AUSHIC*** ***AUSPROV***	***Use AUSHIC for Prescriber Number*** ***Use AUSPROV for Provider Number***
ORC-14	Call Back Phone Number			
ORC-14.2	Telecommunication Use Code	Hard Coded	WPN	
ORC-14.3	Telecommunication Equipment Type	Hard Coded	PH	
ORC-14.7	Phone Number	MD2 File	Doctors Phone Number – field 16	***May or may not contain the area code as it is one field in the MD2 file***
ORC-19	Action By	MD2 File		Multiple occurrences are allowed; within the MD2 file record there is a prescriber and provider number. If both are present create 2 occurrences of the field.
ORC-19.1	ID Number	MD2 File	Doctors Prescriber Number – field 17 Doctors Provider Number – field 18	
ORC-19.2	Family Name	MD2 File	Doctors Name – field 13	***The doctors name appears in full in only 1 field therefore place the whole name in the Family Name field and leave the others***
ORC-19.8	Assigning Authority			
ORC-19.8.1	Namespace ID	Hard Coded	***PRES*** ***PROV***	***Use PRES for Prescriber Number*** ***User PROV for Provider Number***

ORC-19.9	Assigning Facility			
ORC-19.9.1	Namespace ID	Hard Coded	***AUSHIC*** ***AUSPROV***	***Use AUSHIC for Prescriber Number*** ***User AUSPROV for Provider Number***
ORC-23	Ordering Facility Phone Number			
ORC-23.2	Telecommunication Use Code	Hard Coded	WPN	
ORC-23.3	Telecommunication Equipment Type	Hard Coded	PH	
ORC-23.7	Phone Number	MD2 File	Doctors Phone Number – field 16	***May or may not contain the area code as it is one field in the MD2 file***
ORC-24	Ordering Provider Address	MD2 File		Multiple occurrences are allowed but only one occurrence is present within the MD2 file record.
ORC-24.1	Street Address	MD2 File	Doctors Address Line 1 – field 14	
ORC-24.3	City	MD2 File	Doctors Address Line 2 – field 15	***Address line 2 also contains the post code, remove the post code before placing in ORC-24.3***
ORC-24.5	Post Code	MD2 File	Doctors Address Line 2 – field 15	***Address line 2 also contains the post code, extract the post code from the end of address line 2 and place in ORC-24.5***
ORC-24.7	Address Type	Hard Coded	C	

10.4 Pharmacy Prescription Order Details

HL7 Field	Data Item	Source	Data Item	Conditions
RXO-1	Requested Give Code			
RXO-1.1	Identifier (Code Number)	MD2 File	Manufacturer Code – field 31	
RXO-1.2	Text (Trade Name)	MD2 File	Brand Name – field 23	
RXO-1.3	Name of Coding System	Hard Coded	***Manufacturer***	
RXO-1.4	Alternate Identifier (Generic Code)	MD2 File	Medical Director Drug Number – field 29	
RXO-1.5	Alternate Text (Generic Name)	MD2 File	Generic Name – field 22	
RXO-1.6	Name of Coding System	Hard Coded	***MD2***	
RXO-2	Requested Give Amount (Min)	Hard Coded	***1***	***Data not available in MD2 file and field is mandatory***
RXO-4	Requested Give Units			
RXO-4.1	Identifier	Hard Coded	***MDUnits***	***Data not available in MD2 file and field is mandatory***
RXO-4.2	Text	MD2 File	Directions – field 26	
RXO-4.3	Name of Coding System	Hard Coded	***MD2***	
RXO-5	Requested Dosage Form			
RXO-5.4	Alternate Identifier	MD2 File	Form – field 24	

	(TGA Approved Dosage Form Name)			
RXO-5.5	Alternate Text (TGA Approved Dosage Form Name)	MD2 File	Form – field 24	
RXO-5.6	Name of Coding System	Hard Coded	TGAAAN	
RXO-6	Provider Administration Instructions			
RXO-6.1	Identifier	Hard Coded	Null value	
RXO-6.2	Text	MD2 File	Directions – field 26	
RXO-7	Provider Administration Instructions			
RXO-7.1	Identifier	Hard Coded	Null value	
RXO-7.2	Text	MD2 File	Directions – field 26	
RXO-9	Allow Substitutions	Hard Coded	***G***	***Data not available in MD2 file and field is mandatory***
RXO -11	Requested Dispense Amount	MD2 File	Quantity – field 27	
RXO -12	Requested Dispense Units			
RXO -12.1	Identifier	Hard Coded	***Units***	***Data not available in MD2 file***
RXO -12.2	Text	MD2 File	Strength – field 25	
RXO -12.3	Name of Coding System	Hard Coded	***MD2***	
RXO -13	Number of Refills	MD2 File	Repeats – field 28	

10.5 Notes and Comments – Miscellaneous Items

HL7 Field	Data Item	Source	Data Item	Conditions
NTE-1	Set ID	Calculated		***Set miscellaneous Notes to 1 and Authority Notes to 2. Only create Authority notes if PBS Code – field 29 is "AUTH"***
NTE-2	Source of Comment	Hard Coded	P	
NTE-3	Comment			
Occurrence 1	Comment 1	MD2 File	Dr Qualifications – field 19	
Occurrence 2	Comment 2	MD2 File	PBS Code – field 30	
Occurrence 3	Comment 3	MD2 File	Script Code – field 32	
Occurrence 4	Comment 4	MD2 File	Reg 24 – field 33	

10.6 Notes and Comments – Authority Scripts

HL7 Field	Data Item	Source	Data Item	Conditions
NTE-1	Set ID	Calculated		***Set miscellaneous Notes to 1 and Authority Notes to 2. Only create Authority notes if PBS Code – field 29 is "AUTH"***

NTE-2	Source of Comment	Hard Coded	P	
NTE-3	Comment			
Occurrence 1	Comment 1	MD2 File	Authority Prescription Number – field 34	
Occurrence 2	Comment 2	MD2 File	Authority Reason – field 35	
Occurrence 3	Comment 3	MD2 File	Previous Authority – field 36	
Occurrence 4	Comment 4	MD2 File	Authority Send – field 37	
Occurrence 5	Comment 5	MD2 File	Authority Approval Number – field 38	

10.7 Pharmacy / Treatment Route Details

HL7 Field	Data Item	Source	Data Item	Conditions
RXR-1	Route			
RXR-1.1	Identifier	Hard Coded	OTH	
RXR -1.2	Text	Hard Coded	Other/Miscellaneous	
RXR -1.3	Name of Coding System	Hard Coded	HL70162	

11 Appendix F: Base64 Encoding

Reference: Chapter 2.8.16.4 HL7 2.3.1

Base64 is defined as follows (adapted from MIME Internet standard RFC 1521, which has precedence over this description). Proceeding from left to right across a 24-bit input group (three octets), each 6-bit group is used as an index into an array of 64 printable characters. The character referenced by the index is placed in the encoded string. These characters are shown in *MIME base64 encoding characters*,and are selected so as to be universally representable.

Special processing is performed if fewer than 24 bits are available in an input group at the end of data. A full encoding quantum is always completed at the end of data. When fewer than 24 input bits are available in an input group, zero bits are added (on the right) to form an integral number of 6-bit groups. Output character positions which are not required to represent actual input data are set to the character "=". Since all canonically encoded output is an integral number of octets, only the following cases can arise:

1) the final quantum of input is an integral multiple of 24 bits; here, the final unit of encoded output will be an integral multiple of 4 characters with no "=" padding,
2) the final quantum of input is exactly 8 bits; here, the final unit of encoded output will be two characters followed by two "="padding characters, or
3) the final quantum of input is exactly 16 bits; here, the final unit of encoded output will be three characters followed by one "=" padding character.

Value	Code
0	A
1	B
2	C
3	D
4	E
5	F
6	G
7	H
8	I
9	J
10	K
11	L
12	M
13	N
14	O
15	P
16	Q
17	R
18	S
19	T
20	U
21	V
22	W
23	X
24	Y
25	Z
26	a
27	b
28	c

Value	Code
29	d
30	e
31	f
32	g
33	h
34	I
35	j
36	k
37	l
38	m
39	n
40	o
41	p
42	q
43	r
44	s
45	t
46	u
47	v
48	w
49	x
50	y
51	z
52	0
53	1
54	2
55	3
56	4
57	5

Value	Code
58	6
59	7
60	8
61	9
62	+
63	/
(pad)	=

Table 11 - MIME base64 encoding characters

The interpretation of the encoded octets by any of the encoding methods, beyond what is either implicit or specified in the represented data type (such as their ordering within 16-bit or 32-bit binary words on the destination application), is determined by the destination application and is beyond the scope of this Standard.

12 Appendix G: Prescription Layout and Viewer Mapping

12.1 Prescription Layout Example - Standard

Dr. Demo Practitioner
13, Pill Street
Ballarat 3350

Prescriber No: 345908 Provider No: 999998J Phone: 03 5335 2220

Patient Name: Mr. David Anderson
Address: Old Git Nursing Home, 61 Wallace Street
Ballarat 3350

Medicare Number: 4133400271 Pension No: Safety Net Number:

Prescription Date: 21/09/2006 Prescription Number: 000005E

PBS: ☐ RPBS: ☐

Brand Substitution Permitted: ☐ Regulation 24: ☐

IMIGRAN TABLET 50mg
1 tablet swallowed whole. Max dose 6 tablets/24hrs

QTY: 2 5 Repeats

Second script item

---

2 Items

Dr. Demo Practitioner
MBBS

I certify that I have received this medication and the information relating to any entitlement to free or concessional pharmaceutical benefits is not false or misleading.

___/___/____ _____
Date of supply Patient or agents signature

_____
Agents address

12.2 Prescription Layout Mapping - Standard

Dr. General Practitioner **<<ORC-12.2>>**
13, Pill Street **<<ORC-24.1>>**
Ballarat 3350 **<<ORC-24.3 + ORC-24.5>>**

Prescriber No: **<<ORC-12.1>>** Provider No: **<<ORC-12.1>>** Phone: **<<ORC-14.7>>**

Patient Name: **<<PID-5.5 + PID-5.2 + PID-5.1>>**
Address: **<<PID-11.1>>**
<<PID-11.3 + PID-11.5>>

Medicare Number: **<<PID-3.1>>** Pension Number: **<<PID-3.1>>** Safety Net Number: **<<PID-3.1>>**

Prescription Date: **<<ORC-9>>** Prescription Number: **<<ORC-2.1>>**

PBS: **<<NTE-3 segment 1 occurrence 3>>** RPBS: **<< NTE-3 segment 1 occurrence 3>>**
Brand Substitution Permitted: **<<RXO-9>>** Regulation 24: **<< NTE-3 segment 1 occurrence 4>>**

IMIGRAN TABLET 50mg **<<RXO-1.2 + RXO-5.4 + RXO-12.2>>**
1 tablet swallowed whole. Max dose 6 tablets/24hrs **<<RXO-7.2>>**

QTY: **<<RXO-11>>** **<<RXO-13>>** Repeats
_____

Second script item

_____

2 Items **<<Manually Calculate>>**

Dr. Demo Practitioner **<<ORC-12.2>>**
MBBS **<<NTE-3 segment 1 occurrence 1>>**

I certify that I have received this medication and the information relating to any entitlement to free or concessional pharmaceutical benefits is not false or misleading.

___/___/____ _____
Date of supply Patient or agents signature

_____
Agents address

12.3 Prescription Layout Mapping Rules - Standard

Prescriber No: **<<ORC-12.1>>** - Use occurrence of ORC-12.1 where ORC-12.8.1 = “PRES”
Provider No: **<<ORC-12.1>>** - Use occurrence of ORC-12.1 where ORC-12.8.1 = “PROV”
Brand Substitution Permitted: **<<RXO-9>> -** Default is “G” which is allow substitutions therefore put “Y” in check box.
Prescription Date: **<<ORC-9>>** - Format in field is yyyymmdd and will need to be converted to dd/mm/yyyy
PBS:/RPBS: NTE-3 segment 2 occurrence 3 – if code is “P” tick PBS box, if code is “R” tick RPBS

12.4 Prescription Layout Example - Authority

PBS/DVA AUTHORITY SCRIPT No: 00045933

Dr. Demo Practitioner
13, Pill Street
Ballarat 3350

Prescriber No: 345908 Provider No: 999998J Phone: 03 5335 2220

Patient Name: Mr. David Anderson
Address: Old Git Nursing Home, 61 Wallace Street
Ballarat 3350 Send to Patient: ☐

Medicare Number: 4133400271 Pension No: Safety Net Number:

Prescription Date: 21/09/2006 Prescription Number: 000005E

PBS: ☐ RPBS: ☐

Brand Substitution Permitted: ☐ Regulation 24: ☐

IMIGRAN TABLET 50mg
1 tablet swallowed whole. Max dose 6 tablets/24hrs

QTY: 2 5 Repeats

---

1 Item

Dr. Demo Practitioner
MBBS

I certify that I have received this medication and the information relating to any entitlement to free or concessional pharmaceutical benefits is not false or misleading.

___/___/____ _____
Date of supply Patient or agents signature

_____
Agents address

Phone Approval No:
Previous Authority: ☐
Authority Approval Number:

QTY: 2 5 Repeats

Authorised:

Delegate:

Indication for use of item:
Migraine attacks in patients receiving or who have failed a trial of prophylactic medication and where attacks in the past have usually failed to respond to oral Rx with ergotamine and other appropriate agents,or in whom these agents are contraindicated

12.5 Prescription Layout Mapping - Authority

PBS/DVA AUTHORITY SCRIPT No: **<<NTE-3 segment 2 occurrence 1>>**

Dr. General Practitioner **<<ORC-12.2>>**
13, Pill Street **<<ORC-24.1>>**
Ballarat 3350 **<<ORC-24.3 + ORC-24.4>>** Send to Patient: **<<NTE-3 segment 2 occurrence 4>>**

Prescriber No: **<<ORC-12.1>>** Provider No: **<<ORC-12.1>>** Phone: **<<ORC-14.7>>**

Patient Name: **<<PID-5.5 + PID-5.2 + PID-5.1>>**
Address: **<<PID-11.1>>**
<<PID-11.3 + PID-11.5>>

Medicare Number: **<<PID-3.1>>** Pension Number: **<<PID-3.1>>** Safety Net Number: **<<PID-3.1>>**

Prescription Date: **<<ORC-9>>** Prescription Number: **<<ORC-2.2>>**

PBS: **<<NTE-3 segment 1 occurrence 3>>** RPBS: **<< NTE-3 segment 1 occurrence 3>>**

Brand Substitution Permitted: **<<RXO-9>>** Regulation 24: **<< NTE-3 segment 1 occurrence 4>>**

IMIGRAN TABLET 50mg **<<RXO-1.2 + RXO-5.4 + RXO-12.2>>**
1 tablet swallowed whole. Max dose 6 tablets/24hrs **<<RXO-7.2>>**

QTY: **<<RXO-11>>** **<<RXO-13>>** Repeats

---

1 Item **<<Manually Calculate>>**

Dr. Demo Practitioner
MBBS **<<NTE-3 segment 1 occurrence 1>>**

I certify that I have received this medication and the information relating to any entitlement to free or concessional pharmaceutical benefits is not false or misleading.

___/___/____ _____
Date of supply Patient or agents signature

_____
Agents address

Phone Approval No: **<<NTE-3 segment 2 occurrence 5>>**
Previous Authority: **<<NTE-3 segment 2 occurrence 3>>**
Authority Approval Number: **<<NTE-3 segment 2 occurrence 1>>**

QTY: **<<RXO-11>>** **<<RXO-13>>** Repeats

Authorised: **<<???-?>>**

Delegate: **<<???-?>>**

Indication for use of item:
<< NTE-3 segment 2 occurrence 2>>

12.6 Prescription Layout Mapping Rules - Authority

Prescriber No: **<<ORC-12.1>>** - Use occurrence of ORC-12.1 where ORC-12.8.1 = “PRES”
Provider No: **<<ORC-12.1>>** - Use occurrence of ORC-12.1 where ORC-12.8.1 = “PROV”
Brand Substitution Permitted: **<<RXO-9>> -** Default is “G” which is allow substitutions therefore put “Y” in check box.